

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

Postage



## Annual Water Quality Report

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](http://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/](http://www.epa.gov/safewater/).

## 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.



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**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	0.77	0.70 – 0.85	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	0.10	N/A	No	Soil run-off	
% of samples Filtered Water	Daily	N/A	95% <0.3NTU	100%	N/A	No	Soil run-off	
<b>ADDITIONAL MONITORING</b> – 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)	3-10-2020	N/A	N/A	4.91	N/A	No	Erosion of natural deposits	

Additional information about unregulated contaminants can be found here: [www.epa.gov/dwucmr](http://www.epa.gov/dwucmr)

**City of Flint – Distribution System**

Copper & Lead	MCLG	AL	Number of samples above the AL	90 <sup>th</sup> Percentile	Range of all Results	Violation	Likely source
<b>January 1 - June 30, 2020</b>							
Copper (ppb)	1300	1300	0	80	0 - 310	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	0	15	2	4	0 - 41	No	Lead service lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits
Copper & Lead	MCLG	AL	Number of samples above the AL	90 <sup>th</sup> Percentile	Range of all Results	Violation	Likely source
<b>July 1 – December 31, 2020</b>							
Copper (ppb)	1300	1300	0	69	0 – 260	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	0	15	1	6	0 – 28	No	Lead service lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits

Infants and children who drink water containing lead 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 05/14/2021, of these 29,250 service lines, 26,989 have been replaced or are known to be copper. There are 2,500-3,000 service lines that are of unknown composition.

**Monitoring requirements for the City of Flint were not met for the period of Jan 1, 2020 through June 30, 2020. The City of Flint failed to collect the required 60 lead and copper tests.** The City of Flint completed all required compliance monitoring during the period of July-December 2020, which brought the city back into compliance. We will continue to sample for lead and copper during both 6-month monitoring periods in 2021.”

#### City of Flint – Distribution System

Disinfectant By- Products	Sample Date	MCLG	MCL	Running Annual Average	Range of all Results	Violation	Likely source
TTHMs (ppb)	Quarterly	N/A	80	24.6	16.2 – 46.0	No	Disinfection By-product
HAA5 (ppb)	Quarterly	N/A	60	16.7	10 – 26	No	Disinfection by-product
Disinfectant Residual	Sample Date	MRDLG	MRDL	Running Annual Average	Range of all Results	Violation	Likely source
Free Chlorine (ppm)	2020	4.0	4.0	1.41	1.10 – 1.62	No	Disinfectant added to control microbes.

#### \*\*CORRECTION to the 2019 Water Quality Report\*\*

Last year, we incorrectly listed the preliminary lead 90<sup>th</sup> percentile of 3 ppb for the January to June 2019 sampling period. Our report should have listed the final 90<sup>th</sup> percentile of 6 ppb. Please see corrected information below:

January 1 - June 30, 2019	MCLG	AL	Number of samples above the AL	90 <sup>th</sup> Percentile	Range of all Results	Violation	Likely source
Lead (ppb)	0	15	3	6	0-41	No	Lead service lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits

#### 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 **ng/L:** nanogram/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)

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 on October 12, 2020. The results for PFAS showed **Not Detectable (ND)**.

#### **What are PFAS and why are they harmful?**

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.

These chemicals are persistent, which means they do not break down in the environment. They also bioaccumulate, meaning the amount builds up over time in the blood and organs. Studies in people who were exposed to PFAS found links between the chemicals and increased cholesterol, changes in the body's hormones and immune system, decreased fertility, and increased risk of certain cancers.

#### **New Michigan PFAS Drinking Water Standards**

The EPA has not established enforceable drinking water standards, called maximum contaminant levels (MCLs), for these chemicals. However, Michigan amended current drinking water rules by establishing MCLs and sampling requirements for seven PFAS compounds, affecting approximately 2,700 water supplies. These new rules took effect on August 3, 2020.

The following table lists the seven regulated PFAS compounds in Michigan and their associated MCLs.

<b>CONTAMINANT</b>	<b>MCL (NG/L)</b>
PERFLUORONONANOIC ACID (PFNA)	6
PERFLUOROCTANOIC ACID (PFOA)	8
PERFLUOROCTANE SULFONIC ACID (PFOS)	16
PERFLUOROHXANE SULFONIC ACID (PFHXS)	51
HEXAFLUOROPROPYLENE OXIDE DIMER ACID (HFPO-DA)	370
PERFLUOROBUTANE SULFONIC ACID (PFBS)	420
PERFLUOROHXANOIC ACID (PFHXA)	400,000

For information on PFOA, PFOS and other PFAS, including possible health outcomes, you may visit these websites: <https://www.epa.gov/pfas>; [www.atsdr.cdc.gov/pfas](http://www.atsdr.cdc.gov/pfas); or [Michigan.gov/PFASResponse](http://Michigan.gov/PFASResponse).

#### **How often does GLWA monitor for PFAS in its water?**

The standard monitoring schedule for community and nontransient noncommunity public water supplies is quarterly. A water supply must sample quarterly if a contaminant is detected above the reporting limit in any sample. A supply may be reduced to annual monitoring based on satisfactory results of prior sampling.

## **Who can I call if I have questions about PFAS in my drinking water?**

If any resident has additional questions regarding this issue, the State of Michigan Environmental Assistance Center can be contacted at 800-662-9278. Representatives may be reached to assist with your questions Monday – Friday, 8:00 AM to 4:30 PM. You may also contact the City of Flint Water Plant at (810) 787-6537.

## **Is it safe to eat fish in these areas?**

Wild fish samples are being collected from local lakes and rivers. These samples will be analyzed to determine the levels of PFAS in fish and make recommendations on how much is safe to eat. Some information is already available in the State of Michigan Eat Safe Fish guides, which are available at [Michigan.gov/EatSafeFish](http://Michigan.gov/EatSafeFish).

## **May I bathe or swim in water containing PFAS?**

Yes, PFAS does not easily absorb into the skin. It is safe to bathe, as well as do your laundry and household cleaning. It is also safe to swim in and use recreationally.

## **How can PFAS affect people's health?**

Some scientific studies suggest that certain PFAS may affect different systems in the body. The National Center for Environmental Health (NCEH)/Agency for Toxic Substances and Disease Registry (ATSDR) is working with various partners to better understand how exposure to PFAS might affect people's health.

If you are concerned about exposure to PFAS in your drinking water, please contact the MDHHS Toxicology Hotline at 800-648-6942 or the CDC/ATSDR: <https://www.cdc.gov/cdc-info/> or 800-232-4636. Currently, scientists are still learning about the health effects of exposures to PFAS, including exposure to mixtures.

## **What other ways could I be exposed to PFOA, PFOS and other PFAS compounds?**

PFAS are used in many consumer products. They are used in food packaging, such as fast food wrappers and microwave popcorn bags; waterproof and stain resistant fabrics, such as outdoor clothing, upholstery, and carpeting; nonstick coatings on cookware; and cleaning supplies, including some soaps and shampoos. 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.

## **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 [Michigan.gov/PFASResponse](http://Michigan.gov/PFASResponse).

## **Public Participation**

We invite public participation in decisions that affect drinking water quality. City Council meetings will be held at 5pm at city hall council chambers every 1<sup>st</sup> & 3<sup>rd</sup> Wednesday of every month. For more information about your water, or the contents of this report, contact [Water Treatment Plant front office for General Information and Scott Dungee, Water Treatment Plant Supervisor, for any technical information (1-810-787-6537)]. For more information about safe drinking water, visit the U.S. EPA at <http://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 January 1, 2020, through June 30, 2020, 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 116 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 a.m. to 2:00 p.m., 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	1/1/2020 to 6/30/2020	7/1/2020 to 12/31/2020

### What happened? What is being done?

- Under the Lead and Copper Rule (LCR), the City is required to collect samples from at least 60 properly tiered 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 January 1, 2020, to June 30, 2020. The federally mandated reporting date was July, 2020.
- On June 29, July 31, and August 12, 2020, the City requested an extension to complete and submit their Lead and Copper Report. EGLE subsequently granted all three requests and a final submission date of August 28, 2020.
- The City was able to collect samples from 116 sites (120 sample sets total) and submitted their Lead and Copper Report to EGLE on August 28, 2020. While only 49 Tier 1 and Tier 2 sites were validated for compliance, the 90<sup>th</sup> 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.*