

# CITY OF

139 S. SAGINAW STREET  
MONTROSE, MI 48457



# MONTROSE

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## 2021 CONSUMER CONFIDENCE REPORT

### CITY OF MONTROSE

**May 1, 2022**

Dear City Water Consumers:

It is my privilege to report the City of Montrose 2021 Consumer Confidence Report. The Michigan Department of Environmental, Great Lakes, and Energy (EGLE) along with the Safe Drinking Water Act (SDWA) requires community water systems to supply consumers with an annual report. Inside this report, you will find information regarding source, treatment, sample collecting, and other important information regarding your drinking water. This report covers the period from January 1-December 31, 2021. City council meetings are held at the City office 139 S. Saginaw St the third Thursday of each month at 7pm.

Drinking water is important to our community and region. The City of Montrose, The Genesee County Drain Commission Water and Waste Services (GCDC-WWS), and the Great Lakes Water Authority (GLWA) are committed to meeting state and federal water quality standards, including the Lead and Copper Rule (LCR). With the Great Lakes as our water source and proven treatment technologies, the GLWA consistently delivers safe drinking water to our community. The City of Montrose operates the system of water mains that deliver this water to your home's service line. This year's Water Quality Report highlights the performance of the GLWA and the City of Montrose water professionals in delivering some of the nation's best drinking water. Together, we remain committed to protecting public health and maintaining open communication with the public regarding our drinking water.

Thank you,

Sam Spence – Department of Public Works Supervisor

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**HOME OF THE ANNUAL BLUEBERRY FESTIVAL**

## Lead and Copper for 2021

Safe drinking water is a shared responsibility. The water that the Great Lakes Water Authority (GLWA) delivers to our community does not contain lead. Lead can leach into drinking water through home plumbing fixtures, and in some cases, a customer service lines. Corrosion control reduces the risk of lead and copper from leaching into your water. Orthophosphates are added during the treatment process as a corrosion control method to create a protective coating in service pipes throughout the system, including your home or business. The City of Montrose performs required lead and copper sampling and testing in our community. Water consumers have the responsibility to maintain the plumbing in their homes and businesses, and we can take steps to limit their exposure to lead. The City of Montrose successfully tested 20 residents.

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 service lines and home plumbing. The City of Montrose 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 (800-426-4791) or at <http://www.epa.gov/safewater/lead>.

<b>Estimated Number of Service Connections by Service Line Material</b> A service line includes any section of pipe from the water main to the building plumbing at the first shut-off valve inside the building, or 18 inches inside the building, whichever is shorter.						
Any Portion Contains Lead	Contains Galvanized	Unknown			Contains neither Lead, nor Galvanized Previously Connected to Lead	Total**
	Previously Connected to Lead*	Likely Contains Lead	Likely Does <u>Not</u> Contain Lead	Material(s) Unknown		
			657			657



## 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 Environmental Quality in partnership with the U.S. Geological Survey, the Detroit Water and Sewerage Department, and the Michigan Public Health Institute performed a source water assessment in 2004 to determine the susceptibility of potential contamination. The susceptibility rating is a seven-tiered scale ranging from "very low" to "very high" based primarily on geologic sensitivity, water chemistry, and contaminant source. The Lake Huron source water intake is categorized as having a moderately low susceptibility to potential contamination sources.

In 2015, GLWA received a grant from the Michigan Department of Environmental Quality to develop a source water protection program for the Lake Huron water treatment plant intake. 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 plan, identification of potential of source water protection area, management approaches for protection, contingency plans, siting of new sources and public participation and education. The water supplier changed in November 2017. If you would like to know more information about the Source Water Assessment report please, contact your water department at (810-639-6168).

In the summer of 2021 the City of Montrose, in conjunction with Montrose Township and Genesee County Drain Commission Water and Waste Services, completed a secondary water feed supplying water to both City and Township. This allows for more security and redundancy for our water system.

The City of Montrose and the Great Lakes Water Authority are committed to safeguarding our water supply and delivering the highest quality drinking water to protect public health. Please contact us with any questions or concerns about your water.

Thank you,

Sam Spence

DPW Supervisor-City of Montrose

### How do I read this Chart?

It's easy! Our water is tested to assure that it is safe and healthy. These Tables are based on tests conducted by **City of Montrose** within the last five (5) calendar years. We conduct many tests throughout the year, however, only tests that show the presence of a contaminant are shown here. The table on this page is a key to the terms used in the following table. Sources of Contaminants show where this substance usually originates.

Key to Detected Contaminants Table		
Symbol	Non-Abbreviated Symbol or Term	Definition/Explanation
<b>AL</b>	Action Level	The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system must follow.
<b>HAA5</b>	Halo acetic Acids	HAA5 is the total of bromoacetic, chloroacetic, dibromo acetic, dichloroacetic, and trichloroacetic acids. Compliance is based on the total.
<b>LRAA</b>	Locational Running Annual Average	The average of analytical results for samples at a particular monitoring location during the previous four quarters.
<b>MCL</b>	Maximum Contaminant Level	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.
<b>MCLG</b>	Maximum Contaminant Level Goal	The level of contaminant in drinking water below which there is no known or expected risk to health. <i>MCLG's allows for a margin of safety.</i>
<b>MRDL</b>	Maximum Residual Disinfectant Level	The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
<b>MRDLG</b>	Maximum Residual Disinfectant Level Goal	The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.
<b>n/a</b>	not applicable	Does not apply.
<b>ND</b>	Not Detected	Result is not detectable at or below the laboratory detection level.
<b>NTU</b>	Nephelometric Turbidity Units	Measures the cloudiness of water.
<b>pCi/L</b>	Picocuries Per Liter	A measure of radioactivity
<b>ppb</b>	Parts Per Billion (one in one billion)	The ppb is equivalent to micrograms per liter. A microgram = 1/1000 milligram.
<b>ug/L</b>	Micrograms per liter	A microgram = 1/1000 milligrams. 1 microgram per liter is equal to 1 part per billion (ppb).
<b>ppm</b>	Parts Per Million (one in one million)	The ppm is equivalent to milligrams per liter. A milligram = 1/1000 gram.
<b>RAA</b>	Running Annual Average	The average of analytical results for all samples taken during the previous twelve months.
<b>TT</b>	Treatment Technique	A required process intended to reduce the level of a contaminant in drinking water.
<b>TTHM</b>	Total Trihalomethanes	Total Trihalomethanes is the sum of chloroform, bromodichloromethane, dibromochloromethane and bromoform. Compliance is based on the total.
<b>°C</b>	Celsius	A scale of temperature in which water freezes at 0° and boils at 100° under standard conditions.
<b>&gt;</b>	Greater than	Mathematical symbol that denotes a value "greater than" another value.
	90 <sup>th</sup> Percentile Value	The concentration of lead or copper in tap water exceeded by 10 percent of the sites sampled during a monitoring period.

## 2021 Regulated Detected Contaminant Tables

### Inorganic Chemicals – Monitoring at the Plant Finished Water Tap

Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Allowed Level MCL	Highest Level Detected	Range of Detection	Violation yes/no	Major Sources in Drinking Water
Fluoride	Daily	ppm	4	4	0.83	0.63 – 0.83	no	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Arsenic	3-18-21	ppb	0	10	0.54	n/a	no	Erosion of natural deposits; runoff from orchard; runoff from glass and electronics production wastes.
Barium	3-18-21	ppm	2	2	0.014	n/a	no	Erosion of natural deposits; discharge of metal refineries; discharge of drilling wastes.

### Disinfection By-Products – Monitoring in Distribution System, Stage 2 Disinfection By-Products

Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Allowed Level MCL	Highest LRAA	Range of Detection	Violation yes/no	Major Sources in Drinking Water
Total Trihalomethanes (TTHM)	2021	ppb	n/a	80	63	36-63	NO	By-product of drinking water disinfection
Haloacetic Acids (HAA5)	2021	ppb	n/a	60	24	9-24	NO	By-product of drinking water disinfection

### Disinfectant Residuals – Monitoring in Distribution System by Treatment Plant

Regulated Contaminant	Test Date	Unit	Health Goal MRDLG	Allowed Level MRDL	Highest RAA	Quarterly Range of Detection	Violation yes/no	Major Sources in Drinking Water
Total Chlorine Residual	Jan-Dec 2021	ppm	4	4	.6	.2-.6	no	Water additive used to control microbes

### 2021 Turbidity – Monitored every 4 hours at Plant Finished Water

Highest Single Measurement Cannot exceed 1 NTU	Lowest Monthly % of Samples Meeting Turbidity Limit of 0.3 NTU (minimum 95%)	Violation yes/no	Major Sources in Drinking Water
0.08 NTU	100 %	no	Soil Runoff

Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

### 2021 Microbiological Contaminants – Monthly Monitoring in Distribution System

Regulated Contaminant	MCLG	MCL	Highest Number Detected	Violation yes/no	Major Sources in Drinking Water
Total Coliform Bacteria	0	>1 Positive monthly sample, or Presence of Coliform bacteria > 5% of monthly samples	0	NO	Naturally present in the environment
E. coli Bacteria	0	A routine sample and a repeat sample are total coliform positive, and one is also fecal or E.coli positive.	0	NO	Human waste and animal fecal waste.

### 2021 Lead and Copper Monitoring at Customer Tap

Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Action Level AL	90 <sup>th</sup> Percentile Value*	Number of Samples over AL	Violation yes/no	Major Sources in Drinking Water
Lead (Jan-June)	2021	ppb	0	15	0	0	NO	Lead service lines; corrosion of household plumbing system; Erosion of natural deposits.



Lead (July-Dec)	2021	ppb	0	15	0	0	NO	Lead service lines; corrosion of household plumbing system; Erosion of natural deposits.
Copper (Jan-June)	2021	ppm	1.3	1.3	0	0	NO	Corrosion of household plumbing system; Erosion of natural deposits; Leaching from wood preservatives.
Copper (July-Dec)	2021	ppm	1.3	1.3	0	0	NO	Corrosion of household plumbing system; Erosion of natural deposits; Leaching from wood preservatives.

\*The 90th percentile value means 90 percent of the homes tested have lead and copper levels below the given 90th percentile value. If the 90th percentile value is above the AL additional requirements must be met.

Regulated Contaminant	Treatment Technique	Typical Source of Contaminant
Total Organic Carbon (ppm)	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 each month and because the level was low, there is no TOC removal requirement	Erosion of natural deposits

Radionuclides 2019							
Regulated contaminant	Test date	Unit	Health Goal MCLG	Allowed Level	Level detected	Violation Yes/no	Major Sources in Drinking water
Combined Radium 226 and 228	2/13/19	pCi/L	0	5	1.1 ± 0.50	no	Erosion of natural deposits
Gross Alpha	2/13/19	pCi/L	0	15	2.0 ± 1.0	no	Erosion of natural deposits

### 2021 Unregulated Detected Contaminant

Contaminant	MCLG	MCL	Level Detected	Source of Contamination
Sodium (ppm)	n/a	n/a	11.0	Erosion of natural deposits

#### Additional Sampling results;

Every 5 years the United States Environmental Protections Agency (USEPA) establishes 30 unregulated contaminants for additional sampling. Unregulated contaminants are those for which the USEPA has not established drinking water standards. As required by the USEPA, Genesee County Drain Commissioner Division of Water & Waste (GCDC-WWS) Services began testing for several unregulated contaminants in 2013 and will continue additional sampling in 2019 and 2020. The purpose of unregulated contaminants monitoring is to assist USEPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. Before USEPA regulates a contaminant, it considers adverse health effects, the occurrence of the contaminant in drinking water, and whether the regulation would reduce health risk. The following tables list the unregulated contaminants detected during the **2019** calendar year.

Unregulated Contaminants– Monitored at the Primary Source (AM1: metals, pesticides, alcohols, SVOCs) – tested for in 2019			
Contaminant	Units	Results	Source
Bromide	ppm	ND - 23.2	Naturally present is fossil fuel, coal, and shale.
Total Organic Carbon	ppm	2 - 2.4	Erosion of natural deposits.

Unregulated Contaminants– Monitored at the Treatment Plant and Entry Point into the System – tested for in 2019			
Contaminant	Units	Range	Source
Manganese, total	ug/l	2.1 – 10.6	Naturally present in the environment.



**Unregulated Contaminants– Monitored in the Distribution System – tested for in 2019**

Contaminant	Units	Range	Source
Dichloroacetic acid (DCAA)	ug/l	1.2 -13.2	By-product of drinking water disinfection.
Trichloroacetic acid (TCAA)	ug/l	1.6 – 16.5	By-product of drinking water disinfection.
Bromo chloroacetic acid (BCAA)	ug/l	0.3 – 3.9	By-product of drinking water disinfection.
Bromo dichloroacetic acid (BDCAA)	ug/l	ND – 3.1	By-product of drinking water disinfection.
Dibromo acetic acid (DBAA)	ug/l	ND – 0.8	By-product of drinking water disinfection.
ChloroDiBromoAcetic acid	ug/l	ND – 0.6	By-product of drinking water disinfection.
HAA5 Group	ug/l	2.8 – 22.6	By-product of drinking water disinfection.
HAA6Br Group	ug/l	0.6 – 8.1	By-product of drinking water disinfection.
HAA9 Group	ug/l	3.7 – 29.9	By-product of drinking water disinfection.

**Tested for but not Detected Unregulated Contaminants:**

Germanium, Chlorpyrifos, Dimethipin, Ethoprop, alpha-Hexachlorocyclohexane, Oxyfluorfen, Total Permethrin, Profenophos, Tebuconazole, Tribufos, butylated hydroxy anisole, o-toluidine, Quinoline, 1-butanol, 2-methoxyethanol, 2-propen-1-ol, MonoChloroacetic acid, MonoBromoAcetic acid, TriBromoAcetic acid, PFAS/PFOS

During the **2020** calendar year, the Unregulated Contaminants that were sampled for, were not detected.

**Tested for but not Detected Unregulated Contaminants:**

Anatoxin-a, Cylindrospermopsin, Total Microcystins, PFAS/PFOS

**Per- and Polyfluoroalkyl Substances (PFAS):**

Per- and polyfluoroalkyl substances (PFAS), area group of chemicals that are resistant to heat, water and oil. PFAS have been classified by the United States Environmental Protection Agency (US 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 blood samples from the general US population.

These chemicals are persistent, which means they do not break down in the environment. They also accumulate, meaning the amount builds up over time in the blood and organs. Although our understanding of these emerging contaminants is constantly evolving, elevated levels of PFAS have the potential to cause increased cholesterol, changes in the body's hormones and immune system, decreased fertility, and increased risk of certain cancers. Links to these health effects in humans are supported by epidemiologic studies and by laboratory studies in animal model.

**Are there health advisory levels?**

The US EPA has not established enforceable drinking water standards, called maximum contaminant levels, for these chemicals. However, the US EPA has set a lifetime health advisory (LHA) level in drinking water for two PFAS: perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). The PFOA and PFOS LHA is the level or amount, *below which no harm is expected from these chemicals*. The LHA level is 70 parts per trillion (ppt) for PFOA and 70 ppt for PFOS. If both PFOA and PFOS are present, the LHA is 70 ppt for the combined concentration.

The amount of PFOA and PFOS combined in the sample collected from our raw water intake was ND (Non-Detectable), for these two chemicals. There are other PFAS compounds that currently do not have LHA level. For information on PFOA, PFOS, and other PFAS, including possible health outcomes, you may visit these websites: <https://www.epa.gov/pfas>; <https://www.atsdr.cdc.gov/pfas/>; or <http://www.michigan.gov/pfasresponse>. 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 through Friday, 8:00 AM to 4:30 PM.