CITY OF MONTROSE

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June 19, 2019

2018 CONSUMER CONFIDENCE REPORT

CITY OF MONTROSE

Dear City Water Consumers:

It is my privilege to report the City of Montrose 2018 Consumer Confidence Report. The Michigan Department of Environmental Quality (MDEQ) 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, 2018. 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 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

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 Genesee County Drain Commissioner- Division of Water & Waste Services (GCDC-WWS) 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	**Abbreviation**	**Definition/Explanation**
AL	Action Level	The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system must follow.
HAA5	Haloacetic Acids	HAA5 is the total of bromoacetic, chloroacetic, dibromoacetic, dichloroacetic, and trichloroacetic acids. Compliance is based on the total.
LRAA	Locational Running Annual Average	The average of analytical results for samples at a particular monitoring location during the previous four quarters.
MCL	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.
MCLG	Maximum Contaminant Level Goal	The level of contaminant in drinking water below which there is no known or expected risk to health.
MRDL	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.
MRDLG	Maximum Residual Disinfectant Level Goal	The level of a drinking water disinfectant below which there is no known or expected risk to health. MRLDG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.
n/a	not applicable	Does not apply.
ND	Not Detected	Zero or result is below the laboratory detection level.
NTU	Nephelometric Turbidity Units	Measures the cloudiness of water.
pCi/L	Picocuries Per Liter	A measure of radioactivity
ppb	Parts Per Billion (one in one billion)	The ppb is equivalent to micrograms per liter. A microgram = 1/1000 milligram.
ug/L	Micrograms per liter	A microgram = 1/1000 milligrams. 1 microgram per liter is equal to 1 part per billion (ppb).
ppm	Parts Per Million (one in one million)	The ppm is equivalent to milligrams per liter. A milligram = 1/1000 gram.
RAA	Running Annual Average	The average of analytical results for all samples taken during the previous twelve months.
TT	Treatment Technique	A required process intended to reduce the level of a contaminant in drinking water.
TTHM	Total Trihalomethanes	Total Trihalomethanes is the sum of chloroform, bromodichloromethane, dibromochloromethane and bromoform. Compliance is based on the total.
°C	Celsius	A scale of temperature in which water freezes at 0° and boils at 100° under standard conditions.
>	Greater than	

2018 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	2018 Quarterly	ppm	4	4	0.79	0.53 - 0.79	no	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.

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)	2018	ppb	n/a	80	0.11	.026-.11	No	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	2017	ppb	n/a	60	0.020	0.011-.020	No	By-product of drinking water disinfection

Disinfectant Residuals – Monitoring in Distribution System

Regulated Contaminant	Test Date	Unit	Health Goal MRDLG	Allowed Level MRDL	Highest RAA	Range of Detection	Violation yes/no	Major Sources in Drinking Water
Total Chlorine Residual	Jan-Dec 2018	ppm	4	4	3.2	0.5-3.2	no	Water additive used to control microbes

2018 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
0.7 NTU	95 %	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.

2018 Lead and Copper Monitoring at Customer Tap

Regulated Contaminant	Unit	Health Goal MCLG	Action Level AL	90th Percentile Value*	Range	Number Samples over AL	Violation yes/no	Major Sources in Drinking Water
Lead (Jan–June)	ppb	0	15	**0**	**0**	**0**	no	Corrosion of household plumbing system; Erosion of natural deposits.
Lead (July-Dec)	ppb	0	15	**0**	**0**	**0**	no	See above.
Copper (Jan-June)	**ppm**	**1.3**	**1.3**	**0**	**0**	**0**	no	Corrosion of household plumbing system; Erosion of natural deposits; Leaching from wood preservatives.
Copper (July-Dec)	**ppm**	**1.3**	**1.3**	**0**	**0**	**0**	no	See above.

*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 quarter and because the level was low, there is no TOC removal requirement.	Erosion of natural deposits

Radionuclides 2018							
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	2018 Quarterly	pCi/L	0	**5**	ND to 1.68 +0.68	no	Erosion of natural deposits
Gross Alpha	2018 Quarterly	pCi/L	0	**15**	0.07 ± 1.41 2.2± 1.2	no	Erosion of natural deposits

Unregulated Parameters	Unit	Average	Range Detected	Source of Contamination
Sodium (ppm)	ppm	7	5-9	Erosion of natural deposits
Nickel	ppb	0.36	ND to 0.47	Erosion of natural deposits

Unregulated Contaminants;

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. Before EPA regulates a contaminant, it considers adverse health effects, the occurrence of the contaminant in drinking water, and whether the regulation would reduce health risk. GCDC-WWS began monitoring for Unregulated contaminants in 2013. The following tables list the unregulated substances detected during the 2018 calendar year.

2018 Unregulated Contaminants –Monitored at the Primary Source (AM1: metals, pesticides, alcohols, SVOCs)

Contaminant	Units	Result	Source
Bromide	ug/l	19.8	Naturally present in fossil fuels, coal, and shale.
Total Organic Carbon	ug/l	2.2	Erosion of natural deposits.

2018 Unregulated Contaminants –Monitored in the distribution system. (AM1: TP and Entry Point)

Contaminant	Units	Range	Source
Chlorpyrifos	ug/l	ND	Disinfection byproducts group
Dimethipin	ug/l	ND	Disinfection byproducts group
Ethoprop	ug/l	ND	Disinfection byproducts group
Alpha-HCH (alpha-BHC)	ug/l	ND	Disinfection byproducts group
Oxyfluorfen	ug/l	ND	Disinfection byproducts group
Permethrin, Total	ug/l	ND	Disinfection byproducts group
Profenophos	ug/l	ND	Disinfection byproducts group
Tebuconazole	ug/l	ND	Disinfection byproducts group
Tribufos .	ug/l	ND	Disinfection byproducts group

Metals

Germanium, Total	ug/l	ND	Disinfection byproducts group
Manganese, Total	ug/l	1.1	Disinfection byproducts group

2018 Unregulated Contaminants –HAA's Monitored in the distribution system. (AM2: DB 1 thru 8)

Contaminant	Units	Range	Source
Monochloroacetic acid (MCAA)	ug/l	<2	By-product of drinking water disinfection.
Monobromoacetic acid (MBAA)	ug/l	<0.3	By-product of drinking water disinfection.
Dichloroacetic acid (DCAA)	ug/l	0.6 – 5.4	By-product of drinking water disinfection.

Trichloroacetic acid (TCAA)	ug/l	0.5 – 7.2	By-product of drinking water disinfection.
Bromochloroacetic acid (BCAA)	ug/l	<0.3 –3.0	By-product of drinking water disinfection.
Bromocdichloroacetic acid (BDCAA)	ug/l	<0.5 – 4.0	By-product of drinking water disinfection.
Dibromoacetic acid (DBAA)	ug/l	<0.3 – 0.8	By-product of drinking water disinfection.
Chlorodibromoacetic (CDBAA)	ug/l	<0.3 - 1	By-product of drinking water disinfection.
Tribromoacetic acid (TBAA)	ug/l	<2	By-product of drinking water disinfection.
HAA5 Group	ug/l	1.1 – 11.5	By-product of drinking water disinfection.
HAA5Br Group	ug/l	<0.3 – 7.7	By-product of drinking water disinfection.
HAA9 Group	ug/l	1.1 – 18.5	By-product of drinking water disinfection.

"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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water hotline at (800-426-4791).

The sources of drinking water (both tap and bottled 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 material, and can pick up substances resulting from 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 water discharge, oil and gas production, mining, or farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm runoff, and residential use.

Organic chemical contaminants, including synthetic and volatile organics, which are by-products 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 order to ensure that tap water is safe to drink, the EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health."

Some people are more vulnerable to contaminants in drinking water. Immuno-comprised, some elderly, and infants can be at risk. These people should seek advice about drinking water from their health care provider. 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).

Infants and young children are typically more vulnerable to lead in drinking water. it is possible that lead levels at your home may be higher than at other homes as a result of materials used in your homes plumbing. If concerned water may be tested or additional information is available at (800-426-4791).

Lead and Copper for 2018

Safe drinking water is a shared responsibility. The water that 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.

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).

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

Water Warning, Boil Water Advisory

Monday August 27, 2018

Thursday August 23, 2018- Genesee County WWS noticed through their SCADA system that at 1:30am the PRV located in the master pit had malfunctioned causing an increase in water pressure to the City of Montrose.

Thursday August 23, 2018-Genesee County WWS was on site at 8:00am to assess the problem. They determined it was the PRV and a part needed to be ordered to make the fix. Part was ordered and over nighted.

Friday August 24, 2018-Genesee County was on site at 1:30pm after receiving the part. After installing the new part to the PRV and making adjustments it was determined that the part did not fix the problem. Through consultation with both Genesee County WWS and the City of Montrose DPW the pressure would be controlled manually through valves with the bypass valve to the master pit being partially opened (3 turns) for precaution.

Saturday August 25, 2018-During a thunderstorm Saturday morning at 8:15am the power box that feeds the master pit was struck by lightning. Causing loss of power to the Genesee County monitoring system. Genesee County WWS came out at 10:00am to check that everything was working properly. At that time the City of Montrose installed a gauge on the nearest hydrant to help verify pressure. Consumers Energy disconnected power to the power box at 4:30pm so repairs could be made.

Sunday August 26, 2018-The PRV in the master pit went closed between 11:30pm Sunday and 12:30am Monday August 27, 2018 causing the City of Montrose to lose water pressure. The City of Montrose DPW arrived on scene at 12:45am to find water pressure between 12-17 pounds. At 12:50 am with the authority of Genesee County WWS the City of Montrose DPW opened the bypass valve (4 turns) to regulate pressure.

Monday August 27, 2018-A boil water advisory was issued at 2:30am due to the loss of water pressure.

Monday August 27, 2018-Genesee County WWS was on site at 2:00am to help regulate pressure and check gauges located in the master pit. 8:00am Genesee County WWS was on site to fix the valve. After 7 hours the valve was rebuilt and working properly. Bypass valve was closed at 1:45pm.

Monday August 27, 2018-At 7:45am John from Murphys electric was on site to fix the blown surge protector on the power box. it is temporarily bypassed until part is available.

Monday August 27, 2018-At 8:00am The City of Montrose began drawing the required (4) Bacteriological samples.

Monday August 27, 2018-Consumers Energy restored power to the power box at 4:30pm.

Monday August 27, 2018- At 5:00pm Genesee County WWS reconnected the power to their monitoring system. At which time everything back to working like it should.

Tuesday August 28, 2018-At 8:00am the City of Montrose DPW began drawing the second round of required (4) Bacteriological samples.

Wednesday August 29, 2018- At 9:35am we received confirmation from Genesee County WWS Lab Supervisor Melissa Glasgow that all samples came back negative. At which time the Boil Water advisory was lifted.

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF DRINKING WATER AND MUNICIPAL ASSISTANCE

CONSUMER CONFIDENCE REPORT FOR COMMUNITY WATER SUPPLY
CERTIFICATE OF DISTRIBUTION

Issued under authority of 1976 PA 399 and Administrative Rules, as amended.
Failure to submit certification is a violation of the Act and may subject the water supply to enforcement penalties.

Supply Name:	City of Montrose	County:	Genesee	WSSN:	4480
Population:	☐ 500 or fewer people	☒ 501 – 9,999 people		☐ 10,000 or more people	

Community water supplies must confirm that the Consumer Confidence Report (CCR) and any enclosed Public Notices (PN) or notices of CCR availability, have been distributed to customers by July 1 as required under administrative rules R 325.10415 and R 325.10404(4)(c). Supplies must also certify that the information contained in the CCR is correct and consistent with the compliance monitoring data previously submitted to the Michigan Department of Environmental Quality (DEQ). Return the certification to the appropriate DEQ district office by October 1. For addresses, visit www.michigan.gov/deq, click on Locations.

Method of delivery to DEQ

☐ Mail ☒ Email ☐ Hand Delivery ☐ Other _____ Date delivered: 6/19/19

Method of delivery to Local Health Department

☐ Mail ☒ Email ☐ Hand Delivery ☐ Other _____ Date delivered: 6/19/19

Method or combination of methods to directly deliver CCR to each bill paying customer. Check all that apply.

☐ Mail or hand deliver a paper copy of CCR. Date(s) mailed or hand delivered: _____
☒ Mail or hand deliver notification that the CCR is available at a direct URL. Date(s) delivered to customers: 6/19/19
☐ Email notification that CCR is available at direct URL: Date(s) emailed: _____
☐ Email notification that CCR is attached to the email. Date(s) emailed: _____
☐ Email notification that CCR is embedded in the email. Date(s) emailed: _____

If using notification of CCR availability:

1. Mail a paper CCR to customers who request it and to customers known to be incapable of receiving electronically.
2. Include a copy of the notification to the DEQ district office with this certification form.
3. Explain the nature of the notification, prominently display the direct URL, include statement how to request a paper copy.

> Example of Notification of CCR Availability Subject Line: 2012 Drinking Water Quality Report Available.
> Message: Your annual report on the source and quality of your drinking water is available on the Web at **www.anytown.gov/waterqualityreport**. To have a copy mailed to you, contact Anytown at 555-111-1111 or water@anytown.gov.

☐ **Option for supplies serving fewer than 10,000 persons**: Publish entire report in newspaper, and notify customers via newspaper(s) in which CCR published, mail, email or hand delivery that individual copies will not be mailed, and include statement how to request a paper copy.
Date(s) of publication: _____

☐ **Option for supplies serving 500 or fewer persons**: Notify customers via mail, email, hand delivery or, with DEQ approval, posting in public places, that a copy of the report is available from the water supply on request.
Date(s) of notification: _____

Post on Internet (required for supplies serving ≥100,000, optional for others)

☒ Internet address: cityofmontrose.us Date accessible: June 19, 2019

"Good Faith" efforts to reach non-bill-paying consumers (in addition to the method(s) above). Check all that apply.

☐ Mail the report to all postal patrons. Zip codes and dates mailed: _____
☐ Mail to each service connection physical address. Date(s) mailed: _____
☐ Advertise the availability of the report in the newspapers, on TV, and on the radio.
☐ Publish the report in a local newspaper.
☒ Post the report in public places such as cafeterias in public buildings, libraries, churches, and schools.
☐ Deliver multiple copies for distribution by single-bill customers, e.g., apartments or private employers.
☐ Deliver the report to community organizations.
☐ Other: _____

Send to the DEQ a copy of the news articles, a list of channels broadcast and dates, and a list of locations/organizations reports delivered to and dates.

A Tier 3 Public Notice is Distributed with this CCR

☐ This CCR is being used to deliver a Tier 3 Public Notice for one or more violations. To use this Tier 3 delivery option, the CCR must be directly delivered to each bill paying customer or, with DEQ approval, continuously posted, and must be issued within 12 months of learning of the violation. A copy of this form must be delivered to the DEQ within 10 days of delivering the CCR to customers to meet the public notification requirements.

Name/Title: Ken McDonough jr. -Operator in charge Sam Spence-DPW Supervisor

Signature: Ken McDonough jr. Date: 6/19/19

See reverse side for U.S. EPA Expectations for Electronic Delivery of CCR