



# 2018 WATER QUALITY REPORT

June 11, 2019

# ABOUT THIS REPORT

This 2018 Water Quality Report, explains where your drinking water comes from, what is in it, and what we are doing to keep it safe. In the following pages, you will find an overview of the required and voluntary water testing programs that protect our drinking water system. In order to ensure that tap water is safe to drink, Environmental Protection Agency (EPA) prescribes regulations which limit the number of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 **EPA's Safe Drinking Water Hotline at 800.426.4791**.

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 by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems; and
- Radioactive contaminants which can be naturally occurring or be the result of oil and gas production and mining activities.

## City of Mason

The City of Mason's source water comes from seven groundwater wells; wells range from 215 to 400 feet in depth. There are no significant sources of contamination in our water supply based on the testing described further in this report.

The State of Michigan performed an assessment of our source water to determine the susceptibility or the relative potential of contamination. The susceptibility rating is on a seven-tiered scale from "very-low" to "very-high" based on geologic sensitivity, well construction, and water chemistry and contamination sources. The contamination susceptibility evaluation of our source water is moderately high as of 2007. We are making efforts to protect our sources by updating our water sources by updating our well head protection plan in 2019.

If you would like to know more about the report, please contact Customer Service at 517.676.9155 or [info@mason.mi.us](mailto:info@mason.mi.us) to schedule an appointment to speak with one of our water experts.



The City of Mason's source water is from seven groundwater wells. Wells range from 215 to 400 feet in depth. The water from these wells is collected and treated at the Water Treatment Plant.

# WATER QUALITY DATA

The City of Mason is committed to providing exceptional water quality. We routinely monitor for contaminants in your drinking water according to federal and state standards. Many additional parameters were tested, but not detected, and are not included in this report. This report includes information on all regulated drinking water parameters detected during calendar year 2018. We are required to monitor for certain contaminants less than once per year because the concentration of these contaminants is not expected to vary significantly from year to year.

## Regulated Contaminants Detected - Abbreviations & Definitions on Page 4

Parameter Detected	Your Water Results		Regulatory Requirements		Violation	Likely Source
	Highest Level Detected	Results Range	EPA LIMIT	EPA GOAL	Yes/No	
			MCL, TT, or MRDL	MCLG or MRDLG		
<b>Disinfectant Residuals, Disinfection Byproducts, and Disinfection Byproduct Precursors</b>						
Chlorine	.86 ppm	.75-.93 ppm	4	4	No	Water additive used to control microbes
Haloacetic Acids (HAA5)	.007 ppb	N/A	60	N/A	No	Byproduct of disinfection
Total Trihalomethanes (TTHM)	.0218 ppb	N/A	80	N/A	No	Byproduct of disinfection
<b>Radiochemical Contaminants</b>						
Alpha Emitters	2.5 pCi/L	2.5 pCi/L	15	0	No	Erosion of natural deposits
Combined Radium	3.7 pCi/L	3.7 pCi/L	5	0	No	Erosion of natural deposits
<b>Inorganic Contaminants</b>						
Barium	.17 ppm (9/11/14)	.17 ppm (9/11/14)	2 ppm	2 ppm	No	Erosion of natural deposits
Fluoride	0.7 ppm	0.58 – 0.74 ppm	4	4	No	Erosion of natural deposits; water additive which promotes strong teeth
<b>2016 Lead and Copper Results from Residents Faucets</b>						
Copper	0.94 ppm (90% of samples less than or equal to this level)	0.94 ppm (90% of samples less than or equal to this level)	1.3 ppm	1.3 ppm	No	Corrosion of household plumbing
Lead	2.0 ppb (90% of samples less than or equal to this level)	2.0 ppb (90% of samples less than or equal to this level)	15 ppb	0 ppb	No	Corrosion of household plumbing
<b>Special Monitoring and Unregulated Contaminant</b>						
Unregulated contaminants are those for which EPA has not established drinking water standards. Monitoring helps the EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.						
Sodium	11 ppm	11 ppm	N/A	N/A	N/A	Typical source is erosion of natural deposits.
Hardness	358 ppm	358 ppm	N/A	N/A	N/A	Typical source is erosion of natural deposits.
Chloride	16 ppm	16 ppm	N/A	N/A	N/A	Typical source is erosion of natural deposits.
Sulfate	40 ppm	40 ppm	N/A	N/A	N/A	Typical source is erosion of natural deposits.
<b>Emerging Contaminant</b>						
*Lifetime Health Advisory (LHA)						
PFAS	ND	ND	70 LHA	N/A	No	Industrial and consumer product runoff.

# ADDITIONAL INFORMATION

## 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 service lines and home plumbing. The City of Mason 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 two 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** or at <http://www.epa.gov/safewater/lead>.

## PFAS

**Per - and Polyfluoroalkyl Substances**, (PFAS), sometimes called PFC'S are a group of chemicals that are resistant to heat, water, and oil. PFAS have been classified by the United States Environmental Protection Agency (U.S.EPA) as an emerging contaminant on the landscape. For decades, they have been used in many industrial applications and consumer products such as carpeting, waterproof clothing, upholstery food wrappings, fire-fighting foams, and metal plating. They are still in use today. PFAS have been found at low levels both in the environment and in blood samples from the general U.S. population. You can visit <http://michigan.gov/pfasresponse> to find more information about PFAS contamination and efforts to address it in Michigan.

# ABBREVIATIONS, DEFINITIONS & MORE INFORMATION

## Abbreviations & Definitions

**MCL-Maximum Contaminant Level:** The level of a contaminant that is allowed in drinking water. They are set as close to the MCLGs as feasible.

**MCLG-Maximum Contaminant Level Goal:** The level of a contaminant in drinking water below which there is no known or expected risk to health.

**MRDL-Maximum Residual Disinfectant Level:** The highest level of a disinfectant allowed in drinking water.

**MRDLG-Maximum Residual Disinfectant Level Goal:** The level of a drinking water disinfectant below which there is no known or expected risk to health.

**N/A:** Not Applicable

**ND:** Not Detected

**pCi/L:** picocuries per liter

**ppm:** parts per million

**ppb:** parts per billion

**TT-Treatment Technique:** A required process intended to reduce the level of a contaminant in drinking water

## Special Precautions

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 from infections. These people should seek advice about drinking water from their health care providers.

EPA/CDC guidelines on appropriate means to lessen the risk of infection by microbial contaminants are available from the Safe Drinking Water Hotline at: 800.426.4791.

