

2020 CONSUMER CONFIDENCE REPORT DATA

MARINETTE WATERWORKS, PWS ID: 43803958

WATER SYSTEM INFORMATION

If you have questions about this report, please call one of our Water Quality professionals, (715) 732-5180.

The Marinette Water Utility is pleased to provide you with the **Annual Water Quality Report for 2020**. We hope this report will help keep you informed about the quality water and services we deliver to you every day. You can expect to receive a similar report prior to June 30th each year. If you have any suggestions as to how we can make these reports more understandable, or if you have any ideas for information you would like to see included, please let us know.

OPPORTUNITY FOR INPUT ON DECISIONS AFFECTING YOUR WATER QUALITY

We want our valued customers to be informed about their water utility, and involved in decisions concerning their water supply. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the third Monday of each month, at 1905 Hall Avenue. Meeting notices and agendas are posted online on the City of Marinette's Website www.marinette.wi.us and in the Marinette/Menominee Eagle Herald. They can also be found at City Hall and the Water Utility Office. Tours of the Wastewater and Water Utilities are available for groups or individuals. Please contact us at (715) 732-5180 to arrange a tour.

HEALTH INFORMATION

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 Environmental Protection Agency's safe drinking water hotline (800-426-4791).

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 systems 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 cryptosporidium and other microbial contaminants are available from the Environmental Protection Agency's safe drinking water hotline (800-426-4791).

Sources (s) of Water

Source ID	Source	Waterbody Name	Status
1,2,3	Surface Water	Lake Michigan	Active

To obtain a summary of the source water assessment please contact the **Marinette Water Utility, (715) 732-5180**.

EDUCATION INFORMATION

The sources of drinking water, 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 stormwater 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 stormwater 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 stormwater runoff and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

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

DEFINITIONS

Term	Definition
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
HA	Health Advisory: An estimate of acceptable drinking water levels for a chemical substance based on health effects information; a Health Advisory is not a legally enforceable federal standard, but serves as a technical guidance to assist federal, state and local officials.
LOD	Limit of Detection: As low as the instrument can detect.
LOQ	Limit of Quantitation: As low as the instrument can detect with 100% certainty.
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 a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety
n/a	not applicable
NTU	Nephelometric Turbidity Units
pCi/l	picocuries per liter (a measure of radioactivity)
ppm	parts per million, or milligrams per liter (mg/L)
ppb	parts per billion, or micrograms per liter (ug/L)

Detected Contaminants

Your water was tested for many contaminants last year. We are allowed to monitor for some contaminants less frequently than once a year. The following tables list only those contaminants which were detected in your water.

Inorganic Contaminants

Contaminant (Units)	MCL	MCLG	Level Found	Range	Sample Date	Violation	Typical Source of Contaminant
Antimony Total (ppb)	6	6	0.2	0.2	2017	No	Discharge from petroleum refineries; fire retardants; ceramics; electronics; Solder
Barium (ppm)	2	2	0.016	0.016	2020	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride (ppm)	4	4	0.7	0.7	2020	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nickel (ppb)	100	n/a	0.6200	0.6200	2017	No	Nickel occurs naturally in soils, ground water and surface waters and is often used in electroplating, stainless steel and alloy products
Nitrate (NO ₃ -N) (ppm)	10	10	0.21	0.21	2020	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium (ppm)	n/a	n/a	9.00	9.00	2020	No	n/a

Disinfection Byproducts

Contaminant (Units)	Site	MCL	MCLG	Level Found	Range	Sample Date	Violation	Typical Source of Contaminant
HAA5 (ppb)	D-24	60	60	26	22 -31	2020	No	By-product of drinking water chlorination
TTHM (ppb)	D-24	80	0	53.4	33.8 – 73.6	2020	No	By-product of drinking water chlorination
HAA5 (ppb)	D-64	60	60	23	18- 26	2020	No	By-product of drinking water chlorination
TTHM(ppb)	D-64	80	0	49.4	33.2 – 60.6	2020	No	By-product of drinking water chlorination
HAA5 (ppb)	D-65	60	60	22	20 - 24	2020	No	By-product of drinking water chlorination
TTHM(ppb)	D-65	80	0	56.0	33.1 – 78.2	2020	No	By-product of drinking water chlorination
HAA5 (ppb)	D-66	60	60	20	18 - 21	2020	No	By-product of drinking water chlorination
TTHM(ppb)	D-66	80	0	34.4	23.2 – 36.6	2020	No	By-product of drinking water chlorination
HAA5 (ppb)	D-66A	60	60	13	19-31	2020	No	By-Product of drinking water chlorination
TTHM (ppb)	D-66A	80	0	19.5	27.0 – 51.2	2020	No	By-Product of drinking water chlorination

Lead

Contaminant (Units)	Action Level	MCLG	90 th Percentile Level Found	# of Results	Sample Date	Violation	Typical Source of Contaminant
Lead (ppb)	AL=15.0	0	1.8	0 of 30 results were above the action level	2020	No	Corrosion of household plumbing systems; Erosion of natural deposits

Copper

Contaminant (Units)	Action Level	MCLG	90 th Percentile Level Found	# of Results	Sample Date	Violation	Typical Source of Contaminant
Copper (ppm)	AL=1.3	1.3	0.1900	0 of 30 results were above the action level	2020	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

Unregulated Contaminants

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. EPA required us to participate in this monitoring.

Contaminant (Units)	Level Found	Range	Sample Date	Typical Source of Contaminant
HAA5 (ppb)	33.51	23.98 – 43.04	2019 - 2020	By-product of drinking water chlorination
HAA6Br (ppb)	5.68	4.57 – 6.78	2019 - 2020	By-product of drinking water chlorination
HAA9 (ppb)	38.92	30.22 – 47.61	2019 - 2020	By-product of drinking water chlorination
HAA5 (ppb)	23.28	20.04 – 26.51	2019 - 2020	By-product of drinking water chlorination
HAA6Br (ppb)	5.14	4.62 – 5.65	2019 - 2020	By-product of drinking water chlorination
HAA9 (ppb)	28.41	25.69 – 31.13	2019 - 2020	By-product of drinking water chlorination
HAA5 (ppb)	29.95	25.29 – 34.60	2019 - 2020	By-product of drinking water chlorination
HAA6Br (ppb)	4.86	3.8 – 5.92	2019 - 2020	By-product of drinking water chlorination
HAA9 (ppb)	34.61	30.82 – 38.40	2019 - 2020	By-product of drinking water chlorination
HAA5 (ppb)	43.86	34.59 – 53.12	2019 - 2020	By-product of drinking water chlorination
HAA6Br (ppb)	5.66	4.23 – 7.09	2019 - 2020	By-product of drinking water chlorination
HAA9 (ppb)	49.26	41.16 – 57.36	2019 - 2020	By-product of drinking water chlorination
Manganese (ppb)	15.41	6.84 – 23.98	2019 - 2020	Naturally-occurring element; used in steel production, fertilizer, batteries and fireworks
Sulfate (ppm)	17.00	17.00	2020	Mines, smelters, kraft pulp and paper mills, textile mills, and tanneries

Radioactive Contaminants

Contaminant (Units)	Site	MCL	MCLG	Level Found	Range	Sample Date	Violation	Typical Source of Contaminant
Radium, (226 +228) (pCi/l)	Entry Point	5	0	0.5	0.5	2020	No	Erosion of natural depositis

PERFLUORINATED COMPOUNDS

The Water Utility conducted additional monitoring for perfluorinated compounds which was not required by the EPA. The EPA has established a Health Advisory Limit (HAL) set at 0.07 parts per billion for a combined total of PFOA and PFOS. Currently there are no federal or WI standards for PFHpA, PFHxA, and PFHxS. Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of “Less-Certain Quantitation”.

More information and the latest test results of perfluorinated compounds can be found on the City’s website at <https://www.marquette.wi.us/361/PFOA-and-PFOS-Investigation>.

Contaminant (Units)	Site	Level Found	Range	Sample Date	Typical Source of Contaminant
Perfluorooctanesulfonic Acid (ppb) (PFOA)	Entry Point	[0.00172]	[0.00142] – 0.00186	2020	Firefighting foam, landfills, food packaging, clothing, fabrics, upholstery
Perfluorooctanesulfonic Acid (ppb) (PFOS)	Entry Point	[0.00092]	[0.00077] – [0.00126]	2020	Firefighting foam, landfills, food packaging, clothing, fabrics, upholstery
Perfluoroheptanoic Acid (ppb) (PFHpA)	Entry Point	[0.00103]	[0.00085] – 0.00110	2020	Firefighting foam, landfills, food packaging, clothing, fabrics, upholstery
Perfluorohexanoic Acid (ppb) (PFHxA)	Entry Point	[0.00153]	[0.00122] – 0.00189	2020	Firefighting foam, landfills, food packaging, clothing, fabrics, upholstery
Perfluorohexanesulfonic Acid (ppb) (PFHxS)	Entry Point	[0.00061]	[0.00052] – [0.00070]	2020	Firefighting foam, landfills, food packaging, clothing, fabrics, upholstery

ADDITIONAL HEALTH INFORMATION

Some people who drink water containing **trihalomethanes** in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.

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. Marinette Waterworks 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 or at www.epa.gov/safewater/lead.

INFORMATION ON MONITORING FOR CYRPTOSPORIDIUM

Last year cryptosporidium was not monitored in the untreated water.

HEALTH INFORMATION

Cryptosporidium is a microbial parasite naturally found in surface water throughout the world. If ingested, it can cause intense gastrointestinal distress in otherwise healthy people.

Other Compliance

Turbidity Monitoring

In accordance with s. NR 810.29, Wisconsin Administrative Code, the treated surface water is monitored for turbidity to confirm that the filtered water is less than 0.1 NTU. Turbidity is a measure of the cloudiness of water. We monitor for it because it is a good indicator of the effectiveness of our filtration system. During the year, the highest single entry point turbidity measurement was 0.08 NTU.

Distribution System Flushing

The Marinette Water Utility is implementing a common and routine utility maintenance procedure called **unidirectional flushing**. It involves opening fire hydrants and closing valves under controlled conditions to improve distribution pipes. The scouring process helps to remove built up mineral products, improves water quality and restore capacity. Customers in the immediate vicinity of flushing may notice temporarily discolored water and lower than normal water pressure. The discoloration does not pose a health risk. However, avoid using tap water or running the washing machine or dishwasher until flushing is complete.

If you experience some discoloration in your water from nearby flushing, run the cold water at one tap for 5 minutes to see if it clears. If it does not clear wait an hour and try again. When the water runs clear, flush any taps where discolored water was present. If not clear after one hour call the Water Utility, **(715) 732 - 5180**. We thank you for your cooperation.