



# 2020 City of Owosso Water Quality Report

Water Supply Serial Number: 05120

This report covers the drinking water quality for City of Owosso for the 2020 calendar year. This information is a snapshot of the quality of the water that we provided to you in 2020. Included are details about where your water comes from, what it contains, and how it compares to United States Environmental Protection Agency (U.S. EPA) and state standards.

Your water comes from five active groundwater wells, each over 80 feet deep. In 2018 the State 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, water chemistry and contamination sources. The susceptibility of our well sources is high to very high.

**There are no known or identified significant sources of contamination in the city water supply.** In 2020 we had the EGLE Lab test our water for general chemistry, Volatile Organic Compounds and Total Metals, Total Trihalomethanes and Haloacetic Acids. Additional EPA UCMR4 testing for the following contaminants: metals, pesticides, semi-volatile organic chemicals (SOCs), alcohols (AM 1), and haloacetic acids (HAAs) (AM 2) were completed by an EPA Approved Lab. Ground water sources are also tested. Ground water sources are monitored and protected by an approved Michigan Department of Environment, Great Lakes, and Energy (EGLE) Wellhead Protection Program Plan (WHPP), which is designed to (1) ensure safe drinking water to the public, and (2) protect drinking water from potential sources of contamination by following the WHPP program guidelines set forth by EGLE.

If you would like to know more about the report, please contact the Water Plant Superintendent David Haut at 301 W. Main Street, Owosso, MI 48867 Phone: 725-0560. Email: [david.haut@ci.owosso.mi.us](mailto:david.haut@ci.owosso.mi.us) or at our web site: <http://www.ci.owosso.mi.us/utilities>

**Contaminants and their presence in 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 U.S. EPA's Safe Drinking Water Hotline (800-426-4791).

**Vulnerability of sub-populations:** 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. U.S. EPA/Center for Disease Control 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).

**Sources of drinking water:** The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. Our water comes from 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.

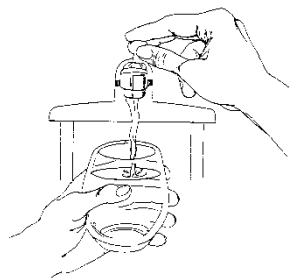
**Pesticides and herbicides**, which may come from a variety of sources such as agriculture and residential uses.

**Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

**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.

In order to ensure that tap water is safe to drink, the U.S. EPA prescribes regulations that limit the levels of certain contaminants in water provided by public water systems. Federal Food and Drug Administration regulations establish limits for contaminants in bottled water which provide the same protection for public health.

## Water Quality Data



The table below lists all the drinking water contaminants that we detected during the 2020 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1, 2020 through December 31, 2020. The State allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. All the data is representative of the water quality, but some are more than one year old.

## Terms and abbreviations used below:

**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.

**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

**ug/l:** The term ug/l refers to **micrograms per liter** and is a measure of a concentration. It is more commonly known as parts per billion (ppb).

**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.

**Monitoring Data for Regulated Contaminants**

Regulated Contaminant	MCL	MCLG	Level Detected	Range	Year Sampled	Violation Yes / No	Typical Source of Contaminant
Barium (ppm)	2	2	0.01	0.01	8/2018	No	Discharge from oil drilling wastes and from metal refineries; erosion of natural deposits
Fluoride (ppm)	4	4	0.75	0.23 to 0.75	2020	No	Erosion of natural deposits. Discharge from fertilizer and aluminum factories.
HAA5 Haloacetic Acids (ppb)	60	N/A	4	3 to 4	08/04/2020	No	Byproduct of drinking water disinfection
TTHM - Total Trihalomethanes (ppb)	80	N/A	39	15 to 39	08/04/2020	No	Byproduct of drinking water disinfection
Chlorine* (ppm)	<b>MRDL</b>	<b>MRDLG</b>	0.35	0.32 to 0.35	2020	No	Water additive used to control microbes
	4	4					
Bromodichloromethane	0.080	N/A	0.0040	0.0040	08/04/2020	No	Byproduct of drinking water disinfection
Bromoform	0.080	N/A	0.0027	0.0027	08/04/2020	No	Byproduct of drinking water disinfection
Chlorodibromomethane	0.080	N/A	0.0057	0.0057	08/04/2020	No	Byproduct of drinking water disinfection
Chloroform	0.080	N/A	0.0024	0.0024	08/04/2020	No	Byproduct of drinking water disinfection
Radioactive Contaminant	MCL	MCLG	Level Detected	Range	Year Sampled	Violation Yes / No	Typical Source of Contaminant
Combined Radium pCi/L (T)	5	0	0.4	N/A	8/2016	No	Erosion of natural deposits

\* Chlorine was calculated using the running annual average.

**Additional Monitoring** - Unregulated contaminants are those for which the U.S. EPA has not established drinking water standards. Monitoring helps the U.S. EPA determine where certain contaminants occur and whether regulation of those contaminants is needed.

**Special Monitoring and Unregulated Contaminant**

	Level Detected	Year Sampled	Comments
Sodium (ppm)	35	8/2019	Typical source is erosion of natural deposits
Chloride (ppm)	86	8/2019	Naturally occurring or indicative of road salt contamination.
Sulfate (ppm)	136***	8/2019	Naturally occurring.
	Average Level Detected	Year Sampled	Comments - See EPA website: <a href="https://www.epa.gov/dwucmr/fourth-unregulated-contaminant-monitoring-rule">https://www.epa.gov/dwucmr/fourth-unregulated-contaminant-monitoring-rule</a>
Germanium (ug/L)	<0.300	1/21/2020	Metal
Manganese (ug/L)	<0.400	1/21/2020	Metal
BHA (ug/L)	<0.0300	1/21/2020	Semi-Volatile Organic Compounds
o-Toluidine (ug/L)	<0.0070	1/21/2020	Semi-Volatile Organic Compounds
Quinoline (ug/L)	<0.0200	1/21/2020	Semi-Volatile Organic Compounds
HAA5 (five regulated haloacetic acids) (ug/L)	13.200	1/07/2020	Disinfection Byproducts
HAA6Br (six brominated haloacetic acids) (ug/L)	11.000	1/07/2020	Disinfection Byproducts
HAA9 (nine haloacetic acids) (ug/L)	18.300	1/07/2020	Disinfection Byproducts
alpha-BHC (alpha-Hexachlorocyclohexane) (ug/L)	<0.010	1/07/2020	Pesticide
Chlorpyrifos (ug/L) (ug/L)	<0.030	1/07/2020	Pesticide
Dimethipin (ug/L)	<0.200	1/07/2020	Pesticide
Ethoprop (ug/L)	<0.030	1/07/2020	Pesticide
Oxyfluorfen (ug/L)	<0.050	1/07/2020	Pesticide
Profenofos (ug/L)	<0.300	1/07/2020	Pesticide
Tebuconazole (ug/L)	<0.200	1/07/2020	Pesticide
Permethrin (total) (ug/L)	<0.040	1/07/2020	Pesticide
Tribufos (ug/L)	<0.070	1/07/2020	Pesticide
1-Butanol (ug/L)	<2.000	1/07/2020	Alcohol
2-Methoxyethanol (ug/L)	<0.400	1/07/2020	Alcohol
2-Propen-1-ol (ug/L)	<0.500	1/07/2020	Alcohol

\*\*\* Sulfate Quality Control results were outside allowed limits due to matrix interferences.

The city of Owosso's community water supply's 90th percentile value exceeded the AL for lead during the most recent round of lead and copper monitoring of drinking water taps from June 1, 2020 through September 30, 2020, as summarized below.

Contaminant	AL	MCLG*	90 <sup>th</sup> Percentile Value	Number of Sites Above AL	Range of Sample Results	Typical Source of Contaminant
Lead	15 parts per billion (ppb)	0	21 ppb	5	0 - 404 ppb	Corrosion of household plumbing systems; Service lines that may contain lead; Erosion of natural deposits
Copper	1.3 parts per million (ppm)	1.3	0.0 ppm	0	0 – 0.1 ppm	Corrosion of household plumbing systems; Erosion of natural deposits

\*MCLG: Maximum contaminant level goal means 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.

An AL exceedance is not a violation, but it triggers other requirements under the administrative rules promulgated under the Michigan Safe Drinking Water Act, 1976 PA 399, as amended (Act 399). Requirements include water quality parameter (WQP) monitoring, source water monitoring, corrosion control treatment, and public education (PE).

**Information about lead:** If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. 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. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Owosso 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 have a lead service line it is recommended that you run your water for at least 5 minutes to flush water from both your home plumbing and the lead 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 or at <http://www.epa.gov/safewater/lead> .

We have estimated that our water supply has 2,038 lead service lines and 1,994 service lines of unknown material out of a total of 6,686 service lines.

## IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

### Monitoring Requirements Not Met For the City of Owosso

We are required to monitor your drinking water for specific analytes on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. However, after a lead Action Level exceedance, monitoring of additional state of Michigan mandated water quality parameters (WQP) were required by November 30, 2020, to ensure the quality of our drinking water during at that time had not changed. The city did not submit the additional water quality samples until two weeks after the required dead line date. **This administrative violation does not pose a threat to the water supply.**

**What should I do?** There is nothing you need to do at this time. This is not an emergency. You do not need to boil water or use an alternative source of water at this time. 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 lists the analytes we did not properly test for, how often we are supposed to sample for this analyte, 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 follow-up samples.

Analytes	Required sampling frequency	Number of samples taken	When all samples should have been taken between	Date samples were taken on
WQP <sup>1</sup> (Treatment Plant (TP001))	2 sets of samples	0	Before November 30, 2020	December 15 and December 16, 2020
WQP <sup>1</sup> (10 locations in the Distribution System)	2 sets of samples	0	Before November 30, 2020	December 15 and December 16, 2020

**What happened? What is being done?** We failed to take and analyze samples for all of the required parameters within the required sampling periods. However, we completed the sampling as soon as we could after we realized we missed the due date.

Monitoring of WQP is an essential part of assessing and controlling corrosion within a water supply and is used to evaluate the potential aggressiveness of water on plumbing and fixtures. Sampling of WQP is required to safeguard public health. We will continue to work with the Michigan Department of Environment, Great Lakes, and Energy to remain in compliance.

For more information, please contact: Mr. David Haut, Water Plant Superintendent, 301 West Main Street, Owosso, Michigan 48867. Phone Number: (989) 725-0560, or by email at david.haut@ci.owosso.mi.us.

*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.*

This notice is being sent to you by the city of Owosso.

Monitoring and Reporting to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) Requirements: The State of Michigan and the U.S. EPA require us to test our water on a regular basis to ensure its safety. **We met all the monitoring and reporting requirements for 2020 except for a two week period involving WQP testing as indicated above.**

We will update this report annually and will keep customers informed of any problems that may occur throughout the year, as required. Copies are available at City Hall. This report will not be sent to you.

We invite public participation in decisions that affect drinking water quality. Public comment may be provided at City Hall during regularly scheduled city council meetings, held at 7:30 p.m. on the first and third Mondays of each month. For more information about your water, or the contents of this report, contact the Water Plant Superintendent, David Haut at 989-725-0560, or email: [david.haut@ci.owosso.mi.us](mailto:david.haut@ci.owosso.mi.us). Further, the city web site at <http://www.ci.owosso.mi.us/Utilities> is available for inquiries and comment. Finally the Director of Public Services and Utilities is available for information and inquiries at 989-725-0555 or email at [glenn.chinavare@ci.owosso.mi.us](mailto:glenn.chinavare@ci.owosso.mi.us). For more information about safe drinking water, visit the U.S. EPA at <http://www.epa.gov/safewater/>.

<sup>1</sup> WQP are a group of analytes that are indicators of corrosivity. They can include pH, alkalinity, calcium, conductivity, temperature, sulfate, and chloride.