



2021 Water Quality Report

Gladwin Michigan

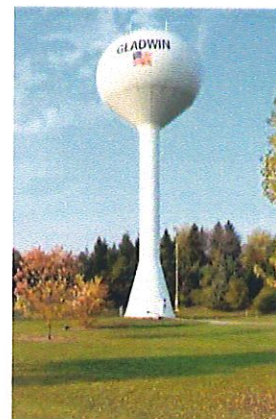
This report covers the drinking water quality for the City of Gladwin for the 2020 calendar. The information is a snapshot of the quality of the water the City of Gladwin provided to you in 2020. Within are details about where your water comes from, what it contains, and how it compares to the United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

Your water is provided by 3 groundwater wells. Each well is over 600 feet deep. The State of Michigan performs 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" and based on geologic sensitivity, well construction, water chemistry and contamination sources. The susceptibility of our source is well #3-high, well #4-low, and well #5-low.

There are no significant sources of contamination included in our water supply. The City of Gladwin is making efforts to protect our sources by INCLUDING PARTICIPATION IN THE WELLHEAD PROTECTION PROGRAM.

If you would like to know more about this report, please contact: Joe Zeitz at 989-426-6943 or Tom Molski 989-426-6946. Or by email at dpw@gladwin.org.

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 Safe Drinking Water Hotline at (800-426-4791).



Vulnerability of sub-populations: Some people may be more vulnerable to contaminants in drinking water, than the general public. Immuno-compromised persons, such as, person with cancer undergoing chemotherapy, persons who have under gone 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 infections by Cryptosporidium and other microbial contaminants are available from the State Drinking Water Hotline (800-426-4791).



Sources of drinking water: 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 the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive materials, and can pick up substances resulting from the presence of animals and human activity.

Contaminants that may be present in source water includes:

- **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 for 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, agricultural and residential uses.
- **Radioactive contaminants**: which can be naturally occurring or be the results 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 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. The Federal Food and Drug Administration regulations establish limits for contaminants in bottled water, which provides 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 1st 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.

Terminology within the Tables:

- **Maximum Contaminant Level Goal (MCLG)**: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.
- **Maximum Contaminants Level (MCL)**: The highest level of a contaminant that is allowed in drinking water.

- **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 that is no known expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- **Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.
- **N/A:** not Applicable
- **ND:** not detectable at testing limits
- **ppb:** parts per billion or micrograms per liter
- **ppm:** parts per million or micrograms per liter
- **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.
- **Level 1 Assessment:** A study of the water supply to identify potential problems and determine (if possible) why total coliform bacteria have been found in our system.
- **Level 2 Assessment:** A very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

1 Monitoring Data for Regulated Contaminants

Regulated Contaminants	MCL, TT or MRDL	MCLG or MRDLG	Level Detected	Range	Year Sampled	Violation Yes/ No	Typical Source of Contaminant
Arsenic (ppb)	0.006	0	ND		2021	No	Erosion of natural deposits; Runoff from orchards; runoff from glass and electronics production wastes
Barium (ppm)	2	2	ND		2021	No	Discharge of drilling wastes; Discharge of metal refineries; Erosion of natural deposits
Nitrate (ppm)	10	10	ND		2021	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Fluoride (ppm)	4	4	0.58		2021	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Sodium1 (ppm)	NA	NA	87		2021	No	Erosion of natural deposits
TTHM Total Trihalomethanes (ppb)	80	NA	ND		2021	No	Byproduct of drinking water disinfection
HAA5 Halo acetic Acids (ppb)	60	NA	ND		2021	No	Byproduct of drinking water disinfection
Chlorine2 (ppm)	4	4	1.3	0.90-1.9	2021	No	Water additives used to control microbes
Alpha emitters (pCi/L)	15	0	3.2+/-2.3		2020	No	Erosion of natural deposits
Combined radium (pCi/L)	5	0	2.8+/-0.8		2020	No	Erosion of natural deposits
Total Coliform (total number or % of positive samples / month)	TT	NA	NA	NA	2021	No	Naturally present in the environment
E. coli in the distribution system (positive samples)	See E. coli note 3	0	NA	NA	2021	No	Human and animal fecal waste
Fecal Indicator -E. coli at the source (positive samples)	TT	NA	NA	NA	2021	No	Human and animal fecal waste

1 Sodium is not a regulated contaminant.

2 The chlorine "Level Detected" was calculated using a running annual average

3 *E. coli* MCL violation occurs if (1) routine and repeat samples are total coliform-positive and either is *E. coli*-positive, or (2) the supply fails to take all required repeat samples following *E. coli*-positive routine sample, or (3) the supply fails to analyze total coliform-positive repeat sample for *E. coli*

Per- and polyfluoroalkyl substances (PFAS)							
Regulated Contaminants	MLC, TT or MRDL	MCLG or MRDLG	Level Detected	Range	Year Sampled	Violation Yes/ No	Typical Source of Contaminant
Hexafluoropropylene oxide dimer acid (HFPO-DA) (ppt)	370	NA	ND		2021	No	Discharge and waste from industrial facilities utilizing the Gen X chemical process
Perfluoro butane sulfonic acid (PFBS) (ppt)	420	NA	ND		2021	No	Discharge and waste from industrial facilities; stain-resistant treatments
Perfluoro hexane sulfonic acid (PFHxS) (ppt)	51	NA	ND		2021	No	Firefighting foam; discharge and waste from industrial facilities
Perfluoro hexanoic acid (PFHxA) (ppt)	400,000	NA	ND		2021	No	Firefighting foam; discharge and waste from industrial facilities
Perfluoro nonanoic acid (PFNA) (ppt)	6	NA	ND		2021	No	Discharge and waste from industrial facilities; breakdown of precursor compounds
Perfluoro octane sulfonic acid (PFOS) (ppt)	16	NA	ND		2021	No	Firefighting foam; discharge from electroplating facilities; discharge and waste from industrial facilities
Perfluorooctanoic acid (PFOA) (ppt)	8	NA	ND		2021	No	Discharge and waste from industrial facilities; stain-resistant treatments
Inorganic Contaminant Subject to Action Levels (AL)	Action Level	MCLG	Your Water ⁴	Range of Results	Year Sampled	Number of Samples Above AL	Typical Source of Contaminant
Lead (ppb)	15	0	0	0-0.004	1st 6 months 2021	No	Lead service lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits
Copper (ppm)	1.3	1.3	0.34	0-0.70	1st 6 months 2021	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	15	0	0	0-0.01	2nd 6 months 2021	No	Lead service lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits
Copper (ppm)	1.3	1.3	0.36	0-0.70	2nd 6 months 2021	No	Corrosion of household plumbing systems; Erosion of natural deposits

⁴ Ninety (90) percent of the samples collected were at or below the level reported for our water.

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 regulations of those contaminants are needed.

Unregulated Contaminants Name	Average Level Detected	Range	Year Sampled			Comments
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PH standard units	7.6	7.5-7.6	2021		Results of monitoring are available upon request
Alkalinity mg/l	172	110-298	2021		Results of monitoring are available upon request
Calcium mg/l	331	286-390	2021		Results of monitoring are available upon request
Conductivity mg/l	1245	1038-1440	2021		Results of monitoring are available upon request
Sulfate mg/l	285	203-333	2021		Results of monitoring are available upon request
Chloride mg/l	27	10-45	2021		Results of monitoring are available upon request
Orthophosphate mg/l	0.874	0-1.26	2021		Results of monitoring are available upon request
Iron mg/l	0.01	0-0.61	2021		Results of monitoring are available upon request

Information about 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 Gladwin 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 (800-426-4791) or at <http://www.epa.gov/safewater/lead>.

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.

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal physician.

Our water supply has no lead service lines and 15 service lines of unknown material out of a total of the 1150 service lines.

Monitoring and Reporting to the 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. The City of Gladwin did have one Reporting violation Notice. We failed to deliver our Consumer Confidence Report to our customers by July 1st. The City returned to compliance on August 20, 2021 the day that CCR was submitted.

We will update this report annually and will keep you informed of any problems that may occur throughout the year, as they happen. Copies of this report are available at City Hall. The report will be published in the City newsletter that is sent to all customers.

We invite public participation in decisions that affect drinking water quality. Please feel free to attend any of our regular council meetings. They are held on the first and third Mondays of the month at 5:00pm at City Hall located at 1000 W. Cedar Ave. For more information about your water or the content of this report, contact Joe Zeitz at 989-426-6443 or at dpw@gladwin.org. For more information about safe drinking water, visit the U.S. EPA at <http://www.epa.gov/safewater>.

Water Supply Serial Number 02650

Certification

WSSN 02620

I certify that this water supply has fully complied with the public notification requirements in the Michigan Safe Drinking Water Act, 1976 PA 399, as amended, and the administrative rules.

Signature: 

Title: DPW Supervisor

Date Distributed: June 2022