

2024 Burtchville Township Water Quality Report

Drinking water quality is important to our community and the region. Burtchville Township DPW and the Great Lakes Water Authority (GLWA) are committed to meeting state and federal water quality standards including the Lead and Copper Rule. With the Great Lakes as our water source and proven treatment technologies, the GLWA consistently delivers safe drinking water to our community. Burtchville Township operates the system of water mains that carry this water to your home's service line. This year's Water Quality Report highlights the performance of GLWA and Burtchville Townships 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 about our drinking water

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, 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 in your home or business. The Burtchville Township DPW performs required lead and copper sampling and testing in our community. Water consumers also have a responsibility to maintain the plumbing in their homes and businesses, and can take steps to limit their exposure to lead.

Mandatory language regarding contaminants reasonably expected to be found in drinking water. (§141.153(h)(I)(i) through (iv)).

"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 at (800-426-4791).

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 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 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 and mining activities.

In order to ensure that tap water is safe to drink, 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."

Warning about the vulnerability of some populations to contaminants in drinking water. (§151.154(a)).

"Some people may be more vulnerable to contaminants in drinking water than is 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 *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791)."

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. Burtchville DPW 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 Website at <http://www.epa.gov/safewater/lead>.

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 sources. The Lake Huron source water intake is categorized as having a moderately low susceptibility to potential contaminant sources. The Lake Huron water treatment plant has historically provided satisfactory treatment of this source water to meet drinking water standards.

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 area, identification of potential of source water protection area, management approaches for protection, contingency plans, siting to new sources and public participation and education. If you would like to know more information about the Source Water Assessment report please, contact your water department (810) 385-8555.

2024 Lake Huron Regulated Detected Contaminants Table

2024 Inorganic Chemicals - Annual Monitoring at Plant Finished Tap								
Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Allowed Level MCL	Highest Level Detected	Range of Detection	Violation	Major Sources in Drinking Water
Fluoride	02-13-2024	ppm	4	4	0.8	n/a	no	Erosion of natural deposit; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	02-13-2024	ppm	10	10	0.35	n/a	no	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Lead and Copper Monitoring at the Customer's Tap in 2024								
Regulated Contaminant	Unit	Year Sampled	Health Goal MCLG	Action Level AL	90 th Percentile Value*	Range of Individual Samples Results	Number of Samples Over AL	Major Sources in Drinking Water
Lead	ppb	2024	0	12	0.009	<0.0010- <0.0010	0	Lead services lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits.
Copper	ppm	2024	1.3	1.3	0.405	0.0041- 0.095	0	Corrosion of household plumbing systems; Erosion of natural deposits

* 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.

2024 Disinfection Residual - Monitoring in the Distribution System								
Regulated Contaminant	Test Date	Unit	Health Goal MRDLG	Allowed Level MRDL	Highest Level RAA	Range of Quarterly Results	Violation	Major Sources in Drinking Water
Total Chlorine Residual	2024	ppm	4	4	0.80	0.68 – 0.87	no	Water additive used to control microbes

2024 Disinfection By-Products - Stage 2 Disinfection By-Products Monitoring in the Distribution System								
Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Allowed Level MCL	Highest Level LRAA	Range of Quarterly Results	Violation	Major Sources in Drinking Water
(TTHM) Total Trihalomethanes	2024	ppb	n/a	80	58	32-58	no	By-product of drinking water chlorination
(HAA5) Haloacetic Acids	2024	ppb	n/a	60	12	1.3-12	no	By-product of drinking water chlorination

2024 Turbidity - Monitored Every 4 Hours at the Plant Finished Water Tap				
Highest Single Measurement Cannot Exceed 1 NTU	Lowest Monthly % of Samples Meeting Turbidity Limit of 0.3 NTU (minimum 95%)		Violation	Major Sources in Drinking Water
0.2 NTU	100 %		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.

2024 Special Monitoring						
Contaminant	Test Date	Unit	MCLG	MCL	Highest Level Detected	Source of Contaminant
Sodium	02-13-2024	ppm	n/a	n/a	5.1	Erosion of natural deposits

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 is measured each quarter and because the level is low, there is no requirement for TOC removal.	Erosion of natural deposits

These tables are based on tests conducted by GLWA in the year 2024 or the most recent testing done within the last five calendar years. GLWA conducts tests throughout the year only tests that show the presence of a substance or require special monitoring are presented in these tables. 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. The data is representative of the water quality, but some are more than one year old.

About Unregulated Contaminant Monitoring

Unregulated contaminants are those for which EPA has not established drinking water standards. Monitoring helps EPA to determine where these contaminants occur and whether it needs to regulate those contaminants.

Unregulated Contaminant	Average Level Detected	Range	Year Sampled	Comments
[Name of Unregulated Contaminant] (unit)				
[Name of Unregulated Contaminant] (unit)				

STATE AND FEDERAL MANDATORY LANGUAGE

REQUIRED INFORMATION ON SPECIFIC CONTAMINANTS CRYPTOSPORIDIUM, RADON, ARSENIC, NITRATE AND TTHM (40 CRF 141.153(E) AND 141.154 (B), (C) & (E))

**REQUIRED INFORMATION ON HEALTH EFFECTS (40 CFR 141.154)
ALL CCRs MUST PROMINENTLY DISPLAY THE FOLLOWING LANGUAGE:**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as person 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 Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

THE REPORT MUST CONTAIN THE FOLLOWING BRIEF EXPLANATION REGARDING CONTAMINANTS WHICH MAY REASONABLY BE EXPECTED TO BE FOUND IN DRINKING WATER, INCLUDING BOTTLED 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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

THE REPORT MUST ALSO CONTAIN LANGUAGE SIMILAR TO THE PARAGRAPHS BELOW. A CWS MAY USE THIS LANGUAGE OR THEIR OWN COMPARABLE LANGUAGE.

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 can dissolve naturally occurring minerals and, in some cases, radioactive

materials, 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 storm water runoff, industrial or domestic wastewater discharge, 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.

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 which limit the amount of certain contaminants in the water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for human health.

INFORMATION ABOUT ANY VIOLATIONS OF THE NATIONAL PRIMARY DRINKING WATER REGULATIONS (40 CFR 141.153(F))

THE CCR MUST INCLUDE ALL VIOLATIONS OF THE NATIONAL PRIMARY DRINKING WATER REGULATIONS (NPDWR) THAT OCCURRED OVER THE PAST YEAR. THE REPORT MUST CONTAIN A CLEAR AND READILY UNDERSTANDABLE EXPLANATION OF THE VIOLATION, ANY POTENTIAL ADVERSE HEALTH EFFECTS, AND THE STEPS THE SYSTEM HAS TAKEN TO CORRECT THE VIOLATION.

Reportable violations include:

- All MCL exceedances, Treatment Technique violations and Action level exceedances
- All Failure to Monitor/Report (FTM) violations
- All Failures to install filtration or to disinfect, in accordance with the Surface Water Treatment Rule (SWTR), or some instances of equipment failure
- All failures of lead and copper control requirements
- All Treatment Technique violations for Acrylamide and Epichlorohydrin
- Any violation of record keeping requirements
- Any violation of a variance, exemption, or administrative or judicial order.

Note any violation and provide a clearly and readily understandable explanation of the violation including:

1. The length of the violation.
2. The potential adverse health effects (if MCL violation).
3. Actions taken by the system to address the violation.
4. **Supplies that failed to send a Consumer Notice of Lead results must say so on the CCR.**

EXAMPLE: WE SUGGEST A STATEMENT SUCH AS, "DURING THE YEAR, WE FAILED TO PROVIDE LEAD RESULTS TO PERSONS SERVED AT THE SITES THAT WERE TESTED AS REQUIRED BY THE LEAD AND COPPER RULE."

The following items must be included when presenting lead and copper data in the data table:

- The most recent 90th percentile value (if sampling was done in both six-month rounds, both sets of 90th percentile data should be included in the CCR).
- The action level (AL) AND the maximum MCLG for both lead and copper.
- The range of individual samples.
- The number of samples above each AL.
- The year that sampling occurred.

The updated "**Typical Source of Contaminant**" Lead language as seen below

"Lead services lines, corrosion of household plumbing including fittings and fixtures; erosion of natural deposits"

State of Michigan Requirements:

Water supplies shall include the number of lead service lines, the number of service lines of unknown material, and the total number of service lines in the supply in their CCR.

CCR LCR CONTENT REQUIREMENT:

Water supplies shall include the number of lead service lines, the number of service lines of unknown material, and the total number of service lines in the supply in their CCR.

MUST INCLUDE:

1. **For supplies with lead service lines (or service lines of unknown material),**
 - a. include the number of lead service lines,
 - b. the number of service lines of unknown material,
 - c. the total number of service lines in the supply.
2. **Must include health effects language for parameters with vulnerable subpopulations and that are detected above the level of concern.**

NEW for the 2024 CCR:

The below lead educational statement meets the requirements and intent of the Michigan and Federal lead and copper rules and, effective immediately, shall be included in every CCR. Except for updating the *Name of System* and *Contact Information*, the following statement shall be included in the CCR verbatim.

Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. Burtchville Township is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure the filter is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from water. Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, doing laundry, or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes 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 and wish to have your water tested, contact Burtchville Township at (810)385-5577 for available resources. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <https://www.epa.gov/safewater/lead/>.

MANDATORY HEALTH EFFECTS LANGUAGE IS REQUIRED IF ONE OR MORE LEAD RESULT WAS ABOVE THE ACTION LEVEL IN YOUR MOST RECENT ROUND OF SAMPLING.

NEW for the 2024 CCR:

The below health statement meets the requirements and intent of the Michigan and Federal lead and copper rules and shall be included in the CCR verbatim when the supply had **at least one lead result that exceeded the lead ACTION LEVEL, even if the 90th percentile was below the action level.**

“There is no safe level of lead in drinking water. Exposure to lead in drinking water can cause serious health effects in all age groups. Infants and children can have decreases in IQ and attention span. Lead exposure can lead to new learning and behavior problems or exacerbate existing learning and behavior problems. The children of persons who are exposed to lead before or during pregnancy can have increased risk of these adverse health effects. Adults can have increased risks of heart disease, high blood pressure, kidney, or nervous system problems.”

REQUIRED LANGUAGE SOURCE WATER PROTECTION FOR COMMUNITIES RECEIVING WATER FROM THE LAKE HURON WATER PLANT.

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 sources. The Lake Huron source water intake is categorized as having a moderately low susceptibility to potential contaminant sources. The Lake Huron water treatment plant has historically provided satisfactory treatment of this source water to meet drinking water standards.

GLWA has initiated source-water protection activities that include chemical containment, spill response, and a mercury reduction program. GLWA participates in the National Pollutant Discharge Elimination System permit discharge program and has an emergency response management plan. GLWA has a Surface Water Intake Protection plan for the Lake Huron water intake. The plan has seven elements: roles and duties of government units and water supply agencies, delineation of a source water protection areas, identification of potential sources of contamination, management approaches for protection, contingency plans, siting of new water sources, public participation, and public education activities. If you would like to know more information about the Source Water Assessment Report. Please, contact GLWA at (313 926-8127).

Key to the 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.
°C	Celsius	A scale of temperature in which water freezes at 0° and boils at 100° under standard conditions.
>	Greater than	
HAA5	Haloacetic Acids	HAA5 is the total of bromoacetic, chloroacetic, Dibromoacetic, dichloroacetic, and trichloroacetic acids. Compliance is based on the total.
Level 1	Level 1 Assessment	A study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in the water system.
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	
ND	Not Detected	Below the detection limit of the method
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.
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 during the previous four quarters.
SMCL	Secondary Maximum Contaminant Level	An MCL which involves a biological, chemical or physical characteristic of water that may adversely affect the taste, odor, color or appearance (aesthetics), which may thereby affect public confidence or acceptance of the drinking water.
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.
µmhos	Micromhos	Measure of electrical conductance of water

The following mineral table is provided but is not required for the CCR.

2024 Lake Huron Tap Water Mineral Analysis

Parameter	Units	Max.	Min.	Avg.	Parameter	Units	Max.	Min.	Avg.
Turbidity	N.T.U.	0.10	0.04	0.07	Phosphorus	mg/L	0.68	0.37	0.48
Total Solids	mg/L	156	89	125	Free Carbon Dioxide	mg/L	7.8	4.6	6.2
Total Dissolved Solids	mg/L	140	92	113	Total Hardness	mg/L	106	88	99
Aluminum	mg/L	0.084	0.022	0.043	Total Alkalinity	mg/L	82	74	77
Iron	mg/L	0.3	0.2	0.2	Carbonate Alkalinity	mg/L	6	0	0
Copper	mg/L	0.005	ND	0.001	Bi-Carbonate Alkalinity	mg/L	82	63	76
Magnesium	mg/L	8.0	7.4	7.6	Non-Carbonate Hardness	mg/L	30	6	23
Calcium	mg/L	27.9	23.3	26.2	Chemical Oxygen Demand	mg/L	8.7	2.0	4.4
Sodium	mg/L	5.3	0.5	4.3	Dissolved Oxygen	mg/L	12.9	8.3	10.3
Potassium	mg/L	1.1	1.0	1.0	Nitrite Nitrogen	mg/L	ND	ND	0.0
Manganese	mg/L	0.001	ND	0.000	Nitrate Nitrogen	mg/L	0.40	0.20	0.28
Lead	mg/L	ND	ND	0.000	Fluoride	mg/L	0.80	0.51	0.72
Zinc	mg/L	0.010	ND	0.003	pH		7.50	7.30	7.39
Silica	mg/L	2.4	1.9	2.2	Specific Conductance @ 25 °C	µmhos	222	135	189
Sulfate	mg/L	32.8	18.1	21.4	Temperature	°C	22.8	8.9	16.1
Chloride	mg/L	11.0	9.0	9.9					