

**2024**  
***Annual Drinking Water Quality Report***  
***Charter Township of Union***

The Charter Township of Union Public Service Department is pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Union Township has three separate well fields, with wells ranging in depth from 56'6" to 160'.

**We are pleased to report that our drinking water meets federal and state requirements.**

If you have any questions regarding this report or concerning your water utility, please contact Kim Smith, Public Services Director, at 5228 South Isabella Road, Mt. Pleasant, MI 48858, 989-772-4600 ext. 224. We want our valued customers to be informed about their water utility. We invite public participation in decisions that affect drinking water quality. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the second and fourth Wednesday of every month at 7:00 p.m. at the Union Township Hall. The Union Township Hall is located at 2010 S. Lincoln Road, Mt. Pleasant, MI 48858.

The Charter Township of Union routinely monitors constituents in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1, 2024, to December 31, 2024. In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

*Non-Detects (ND)* - laboratory analysis indicates that the constituent is not present.

*Parts per million (ppm) or Milligrams per liter (mg/l)* - one part per million corresponds to one minute in two years or a single penny in \$10,000.

*Parts per billion (ppb) or Micrograms per liter* - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

*Micrograms per liter (ug/l)* – a measure of the concentration of a substance in water equivalent to parts per billion (ppb)

*Parts per trillion (ppt) or nanograms per liter* – is a measurement of the quantity of a substance in the air, water or soil. A concentration of one part per trillion means that there is one part of that substance for every one trillion parts of either air, water or soil in which it is contained.

*Action Level* - the concentration of a contaminant, which, if exceeded, triggers treatment or other requirements which a water system must follow.

*Maximum Contaminant Level* - The “Maximum Allowed” (MCL) is 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 goal or 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.

*Maximum residual disinfectant level or 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 Contaminant Level Goal* - The “Goal” (MCLG) is 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.

**Monitoring schedule set by State of Michigan.**

TEST RESULTS									
Regulated Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination			
<b>Inorganic Contaminants</b>									
Arsenic (ppb) 2020 date of detect	N	ND	Ppb	0	10	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes These arsenic values are effective January 23, 2006. Until then the MCL is 50 ppb and there is no MCLG.			
Barium (ppm) 2020 date of detect	N	.07-.11	Ppm	2	2	Discharge of drilling waste; Discharge of metal refineries; erosion of natural deposits			
Copper (ppm) (90 <sup>th</sup> Percentile) 2024 date of detect	N	.3	Ppm	1.3	AL=1.3	Corrosion of household plumbing systems; Erosion of natural deposits			
Copper Range = 2024 date of detect		0.0 -0.4							
Fluoride (ppm) 2024 date of detect	N	.38	Ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories			
Sodium <sup>1</sup> (ppm) 2024 date of detect	N	9.9 - 98	Ppm			Naturally occurring, erosion of natural deposits			
Uranium (ppb) 2024 date of detect	N	4.5	Ppb		30	Erosion of natural deposits			
Lead (ppb) (90 <sup>th</sup> percentile) 2024 date of detect	N	2	Ppb	0	AL=15	Lead service lines, corrosion of household plumbing including fittings and fixtures; erosion of natural deposits			
Lead Range = 2024 date of detect		0 - 4							
Free Chlorine (ppm) <sup>2</sup> – Highest RAA = Range = Maximum = 2024 date of detect	N	.33 .04 - .56 .56	Ppm	MRDLG 4	MRDL 4	Water additive used to control microbes.			
TTHM (ppb)	Previous Year - 2023			Year Covered by the CCR - 2024					
	2 QTR	3 QTR	4 QTR	1 QTR	2 QTR	3 QTR	4 QTR	MCL	Likely Source of Contamination
Distribution Site		26.5 - 46.69 ppb				4.4 - 12 ppb		80	Byproduct of drinking water disinfection
RAA (running annual average)		36.595 ppb				8.2 ppb			

## Per- and polyfluoroalkyl substances (PFAS)

Regulated Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Hexafluoropropylene oxide dimer acid (HFPO-DA) (ppt) 2024 date of detect	N	ND	ppt	NA	370	Discharge and waste from industrial facilities utilizing the Gen X chemical process
Perfluorobutane sulfonic acid (PFBS) (ppt) 2024 date of detect	N	4	ppt	NA	420	Discharge and waste from industrial facilities; stain-resistant treatments
Perfluorohexane sulfonic acid (PFHxS) (ppt) 2024 date of detect	N	ND	ppt	NA	51	Firefighting foam; discharge and waste from industrial facilities
Perfluorohexanoic acid (PFHxA) (ppt) 2024 date of detect	N	ND	ppt	NA	400,000	Firefighting foam; discharge and waste from industrial facilities
Perfluorononanoic acid (PFNA) (ppt) 2024 date of detect	N	ND	ppt	NA	6	Discharge and waste from industrial facilities; breakdown of precursor compounds
Perfluorooctane sulfonic acid (PFOS) (ppt) 2024 date of detect	N	ND	ppt	NA	16	Firefighting foam; discharge from electroplating facilities; discharge and waste from industrial facilities
Perfluorooctanoic acid (PFOA) (ppt) 2024 date of detect	N	2	ppt	NA	8	Discharge and waste from industrial facilities; stain-resistant treatments

<sup>1</sup> Sodium is not a regulated contaminant.

<sup>2</sup> The chlorine "Level Detected" was calculated using a running annual average.

The average sodium concentration was 45.6333 Ppm.

There is zero (0) lead and Zero (0) copper samples that exceeded the action level (AL)

### 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.

Unregulated Contaminant Name	Average Level Detected	Range	Year Sampled	Comments
Lithium (ug/L)	9.43	9.43	2023	Results of monitoring are available upon request

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.

**Information about lead:** 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. The Charter Township of Union 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 the Charter Township of Union, Kim Smith - Public Services Director at 989-772-4600 ext. 224 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>.

Our water supply has the following information on lead service lines:

Number of Lead Service Lines	Number of Service Lines of Unknown Material	Total Number of Service Lines
0	371	2011

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. We met all the monitoring and reporting requirements for 2024.

For more information about safe drinking water, visit the U.S. EPA at <http://www.epa.gov/safewater>.

We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water **IS SAFE** at these levels.

All 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 the 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 1-800-426-4791.

The sources of drinking water (both tap and bottled water) include rivers, 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 or from human activity.

Your water comes from seven groundwater wells; they range from 56'6" to 160' drawing from a drift aquifer. The State of Michigan performed an assessment of our source water in 2003 to determine the susceptibility or the relative potential contamination. This report determines the susceptibility of or the relative potential of contamination. The susceptibility rating is on a seven-tier scale from "very-low" to "very-high" based primarily on geologic sensitivity, water chemistry, and contamination sources. The susceptibility of our well's ranges from low to moderate. Wells number three and four have a low rating and wells number one, two, five, and six have a moderate rating.

If you would like to know more about the report a copy can, be obtained from The Charter Township of Union Public Services Department located at 5228 South Isabella Road, Mt. Pleasant MI 48858. Or call 989-772-4600 ext. 224 if you wish to have a copy of this report mailed to you.

There are no significant sources of contamination in our water supply. We are making efforts to protect our water sources by having an up to date and approved Wellhead Protection Program and by monitoring the use of surrounding land areas.

EPA is reviewing the drinking water standard for arsenic because of special concerns that it may not be stringent enough. Arsenic is a naturally occurring mineral known to cause cancer in humans at high concentrations.

Unregulated contaminants are those for which EPA has not established drinking water standards. Monitoring helps the U.S. EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants. We monitor for these contaminants and the results of monitoring are available on request.

#### Contaminants that may be present in source water.

Microbial contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as salt and metals, can be naturally occurring or result from urban storm water runoff, industrial, or domestic wastewater discharges, oil and gas production, mining and farming.

Pesticides and herbicides, which may come from a variety of sources such as agricultural, urban storm water runoff, and residential uses.

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

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. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

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 cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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 will be mailed to each customer. If you wish to obtain an additional copy of this report it can be obtained from the Charter Township of Union Hall located at 2010 South Lincoln Road, Mt. Pleasant, MI 48858. You can also call 989-772-4600 ext. 224 if you wish to have a copy of the report mailed to you. It is also available online

<http://www.uniontownshipmi.com/Departments/PublicServicesDepartment.aspx>.