Charter Township of Harrison – Calendar Year 2024 Annual Drinking Water Quality Report

Charter Township of Harrison – 38151 L'Anse Creuse – Harrison Township, MI 48045
www.harrisontownshipmi.gov

This report covers the drinking water quality for the Charter Township of Harrison for the 2024 calendar year. This information is a snapshot of the quality of the water that we provided you in 2024. 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.

Drinking Water Quality
Drinking water quality is important to our community and the region. The Charter Township of Harrison 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. Harrison 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 Harrison Township 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 regarding our drinking water.

Right to Know Rule
In 1998, the Environmental Protection Agency passed a federal rule to ensure that consumers of community water supplies nationwide receive an Annual Drinking Water Quality Report. Harrison Township is proud to provide your drinking water and pleased to announce that the quality of water delivered met or surpassed all standards mandated by the Environmental Protection Agency and the Michigan Department of Environment, Great Lakes & Energy (EGLE) for the 2024 calendar year. The Harrison Township Water Department strives to maintain your confidence in our efforts to provide you with safe and dependable drinking water. This report will illustrate that we are achieving this goal.

System Back Ground
The Harrison Township Water Department provides 2.5 million gallons of safe, high-quality drinking water to approximately 26,000 residents each day. Harrison Township is supplied with water from the Lake Huron Water Plant and Northeast Water Treatment Plant, which are operated and owned by the Great Lakes Water Authority (GLWA); it should be noted that approximately 80 customers are supplied by the City of Mt. Clemens Water Treatment Plant located in Harrison Township.

How Do We Know the Water Is Safe to Drink?
All three plants operate 24 hours a day, seven days a week. The treatment process begins with disinfection to kill harmful microorganisms that cause illness. A chemical called alum is mixed with the water to remove the fine particles that make the water cloudy or turbid. Fluoride is also added to protect our teeth from cavities. The water then flows through fine sand filters called beds. These filters remove even more particles and certain microorganisms that are resistant to chlorine. Finally, a small amount of phosphoric acid and chlorine are added to the treated water just before it leaves the plants. The phosphoric acid helps control the lead that may dissolve in water from household plumbing systems. The chlorine keeps the water disinfected as it travels through a water distribution system to reach your home. In addition to a carefully controlled and monitored treatment process, our water is tested for a variety of substances before treatment, and throughout the distribution system. Hundreds of samples are tested weekly in certified laboratories by highly qualified staff. Our water not only meets safety and health standards but also ranks among the top 10 drinking waters in the country for quality and value.

Source Water Assessment

Your water comes from two different locations, the Lake Huron and Northeast Water Treatment Plants. The first location of your source water comes from the lower Lake Huron watershed. The watershed includes numerous short, seasonal streams that drain to Lake Huron. The second Northeast location of your source water comes from the Detroit River, situated within the Lake St. Clair, Clinton River, Detroit River, Rouge River, Ecorse River, watersheds in the U.S. and parts of the Thames River, Little River, Turkey Creek and Sydenham watersheds in Canada. The Michigan Department of Environmental Quality (MDEQ) in partnership with the U.S. Geological Survey, the Detroit Water and Sewerage Department (DWSD) and the Michigan Public Health Institute performed a source water assessment in 2004 to determine the susceptibility of potential contamination, namely GLWA's Detroit River source water for potential contamination. The susceptibility rating is based on a seven-tiered scale ranging from "very low" to "very high" based primarily on using geologic sensitivity, water chemistry and potential contaminant sources. The Lake Huron source water intake is categorized as having a moderately low susceptibility to potential contaminant sources, while the report described GLWA's Detroit River intakes as highly susceptible to potential contamination. The Lake Huron water treatment plant as well as GLWA's Northeast water treatment plant, that draws water from the Detroit River, have both historically provided satisfactory treatment of the 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 and Belle Isle Water Intakes. The plan has seven elements: roles and duties of government units and water supply agencies, delineation of 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.

GLWA voluntarily monitors for Cryptosporidium and Giardia in our source water monthly. The untreated water samples collected from our Belle Isle Intake indicated the presence of one Giardia cyst in November 2024. All other samples collected from the Belle Isle Intake in 2024 were absent for the presence of Cryptosporidium and Giardia. Systems using surface water like GLWA must provide treatment so that 99.9 percent of Giardia lamblia and Cryptosporidium is removed or inactivated. GLWA's

drinking water treatment process is designed to remove and inactivate these protozoans.

Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

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. Environmental Protection Agency's (EPA) Safe Drinking Water Hotline at (800) 426-4791.

Vulnerability of Sub-Populations and Health Effects

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/Center For Disease Control (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 at (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. 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 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 the result of oil and gas production and mining activities.

Important Drinking Water Information

In order to ensure that tap water is safe to drink, the U.S. EPA prescribes regulations which limit the number of certain contaminants in water provided by public water systems. The Federal Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. All of these contaminants were below the level of concern in Harrison Township water.

Important Health Information About Lead

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. *Ortho*-phosphates 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 Charter Township of Harrison 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.

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. Harrison 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 Harrison Township Water Department at (586) 466-1400 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.

In our 2020 Consumer Confidence Report, Harrison Township documented having three (3) known lead service lines connected to our distribution system. All three (3) of these lead service lines have been removed and replaced. According to historical records, there are zero known lead service lines remaining of the approximate 7,990 total water services in Harrison Township. To further investigate our water distribution system for the possibility of lead service lines, Harrison Township applied for and has been awarded a $328,116.37 DWAM (Drinking Water Asset Management) Grant, from the Department of Environment, Great Lakes & Energy (EGLE). This grant, among other things, will allow Harrison Township to physically excavate and verify service line materials throughout random geographical areas of our distribution system to support the historical water service tap applications and installation documents contained in our records for each water service tap. In closing, Harrison Township and the Great Lakes Water Authority are committed to safeguarding our water supply and delivering the highest quality drinking water to protect public health. Please contact us with any questions or concerns about your drinking water.

Please Help HARRISON TOWNSHIP Continue To Provide SAFE, QUALITY WATER To Our Residents

Combined with GLWA (Great Lakes Water Authority), EGLE (Department of Environment, Great Lakes & Energy), MCPW (Macomb County Public Works) and MCHD (Macomb County Health Department), Harrison Township is committed to providing safe, affordable drinking water to its residents. Safe drinking water begins at the source. Harrison Township continually works to improve our sanitary sewer system to prevent harmful chemicals and pollution from entering our precious waterways. Michigan is extremely fortunate to have such an abundant supply of fresh water at our disposal, which allows us to supply potable water that ranks among the top ten (10) in the country for quality and value. Without clean source water, providing high quality potable water to our residents would become increasingly more difficult to produce and would cause substantial cost increases, not only at the water source filtration plants, but to every individual resident. Please remember, what you dispose of down your drains and storm sewers ultimately makes its way back to the source water used to supply the water that enters your home for consumption. We must all do our part to keep our water safe for generations to come.

In the following tables, you will find many terms and abbreviations that might be unfamiliar to you. To help you better understand these terms, we have provided the following definitions.

Key to Contaminants Tables

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.
HAA5	Haloacetic Acids	HAA5 is the total of bromoacetic, chloroacetic, dibromoacetic, dichloroacetic and trichloroacetic acids. Compliance is based on the total.
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 MCLG 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.
MRDL	Maximum Residual Disinfectant Level	The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the 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. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.
n/a	not applicable	
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.
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.

Water Quality Data: 2024 Lake Huron and Northeast Contaminant Tables

The following tables are based on tests conducted by GLWA during the 2024 calendar year 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. For more information or to answer any questions, please contact Public Services Director, Justin Murphy, (586) 466-1426.

Lake Huron & Northeast Water Treatment Plant
CCR Detected Regulated Contaminants Table

LEAD AND COPPER – Tested at customers' taps.								
Contaminant	Test Date	EPA's Action Level	Ideal Goal (EPA's MCLG)	Range of Results	Your Water*	Above AL	Violation	Typical Sources
Lead	2024	90% of homes less than 15 ppb	0 ppb	0 ppb-4 ppb	2 ppb	0	No	Lead service lines, corrosion of household plumbing (fittings & fixtures); Erosion of natural deposits
Copper	2024	90% of homes less than 1.3 ppm	1.3 ppm	0.0 ppm-0.2 ppm	0.1 ppm	0	No	Lead service lines, corrosion of household plumbing (fittings & fixtures); Erosion of natural deposits

*90th % value = 90% of homes tested have lead & copper levels below the given 90% value; if above the AL, additional requirements must be met.

On January 1, 2025, the action level for lead in Michigan dropped from 15 ppb to 12 ppb. All monitoring conducted on or after January 1, 2025, will be evaluated against the 12 ppb action level for lead.

INORGANIC CHEMICALS– Annually Monitored at the Plant Finished Tap							
Contaminant	Test Date	Highest Level Allowed (EPA's MCL)	Ideal Goal (EPA's MCLG)	Highest Result(ppm)	Range of Test Results	Violation	Typical Sources
Fluoride	2/13/2024	4 ppm	4 ppm	0.8	n/a	No	Erosion of natural deposits; Water additive to promote strong teeth; Discharge from fertilizer & aluminum factories
Nitrate	2/13/2024	10 ppm	10 ppm	0.35	n/a	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

DISINFECTION RESIDUAL – Quarterly Monitoring in the Distribution System							
Contaminant	Test Date	Highest Level Allowed (EPA's MRDL)	Ideal Goal (EPA's MCLG)	Highest Level LRAA (ppm)	Range of Qtr. Results (ppm)	Violation	Typical Sources
Total Chlorine Residual	2024	4 ppm	4 ppm	0.80	0.68-0.87	No	Water additive used to control microbes

DISINFECTION BY-PRODUCTS – Stage 2 Quarterly Monitoring in the Distribution System							
Contaminant	Test Date	Health Goal MCLG	Allowed Level MCL (ppb)	Highest Level LRAA (ppb)	Range of Qtr. Results (ppb)	Violation	Typical Sources
(TTHM) Total Trihalomethanes	2024	n/a	80	31.95	19.2 – 41.6	No	By-product of drinking water chlorination
(HAA5) Haloacetic Acids	2024	n/a	60	14	12 - 16	No	By-product of drinking water chlorination

Regulated Contaminants Table
Continued

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	Typical Sources
0.28 NTU	100%	No	Soil Runoff
Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.			

INORGANIC CHEMICALS		
Contaminant	Treatment Technique	Typical Sources
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

Unregulated Contaminants Table

UNREGULATED CONTAMINANTS				
Contaminant	Average Level Detected	Range	Year Sampled	Comments
HAA5 (in the distribution system)	14.2	13 – 15.4	2020	Results of monitoring are available upon request
HAA6Br	8.6	7.5 – 9.7	2020	Results of monitoring are available upon request
HAA9	22.55	20.5 – 24.6	2020	Results of monitoring are available upon request
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 Table

SPECIAL MONITORING					
Contaminant	Test Date	MCL (ppm)	MCLG (ppm)	Highest Level Detected(ppm)	Typical Sources
Sodium	2/13/2024	n/a	n/a	5.3	Erosion of natural deposits

PUBLIC PARTICIPATION OPPORTUNITIES

Harrison Township has public board meetings every second and fourth Monday of each month, with the exception of Holidays, beginning at 7:00 p.m. They are held in Rosso Hall at 38255 L'Anse Creuse. The township website, www.harrisontownshipmi.gov, has beneficial information about Harrison Township, including property tax information, minutes and agendas, paying bills online, senior center, contact information and much more.

Included with every water bill, is a newsletter which provides Harrison Township residents and business owners with helpful information, and updates related to current projects taking place as well as those being planned for future events. These newsletters are updated with every billing cycle.

Helpful Tip:

Reducing leaks and conserving water lowers your Water & Sewer bill.

Download the new app to monitor your own usage!

My Water Advisor 2.0