

City of Highland Park Water Department

Annual Water Quality Report for 2022

PWS ID: MI-0003140



A Message From the Water Department Director

Dear Community,

This is your annual report about your drinking water quality, also called a Consumer Confidence Report or CCR. Having clean, safe water is one of the most important services we provide, and we want you to be as informed as possible about your drinking water.

This report is intended to provide peace of mind and confidence in your drinking water. Here we explain where your water comes from, the results of sampling that we have performed, and what we are doing to protect you and your family. We are proud to report that the water we provide to you has met all federal and state requirements in 2022.

If upon reading this report, you have any questions or do not feel that peace of mind, please reach out. You may contact us at 313.865.1876 and hpwaterdepartment@metroca.net.

Sincerely,

A handwritten signature in blue ink, appearing to read "Damon L. Garrett".

Damon L. Garrett, PE

Water Director

14110 Woodward Avenue

Highland Park, MI 48203

313-865-1876 | hpwaterdepartment@metroca.net

About Your Water



Where Your Drinking Water Comes From

Your source water comes from the Detroit River, situated within 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. Highland Park water comes from the Water Works Treatment Plan in Detroit.

We Protect the Source

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 rating is based on a seven-tiered scale and ranges from “very low” to “very high” determined primarily using geologic sensitivity, water chemistry, and contaminant sources. The report described GLWAs Detroit River intakes as highly susceptible to potential contamination. However, all four GLWA water treatment plants that service the City of Detroit and draw water from the Detroit River have historically provided satisfactory treatment and drinking water standards.

GLWA has initiated source-water protection activities that include chemical containment, spill response, and a mercury reduction program. GLWA participates in a National Pollutant Discharge Elimination System permit discharge program and has an emergency response management plan. In 2016, the Michigan Department of Environmental Quality approved the GLWA Surface Water Intake Protection Program plan. The programs include seven elements that include the following: roles and duties of government units and water supply agencies, delineation of source water protection area, identification of potential of sources or 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 Source Water Assessment report, contact GLWA at (313) 926-8102.

What Is in Your 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 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, urban stormwater 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 stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

To ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations which limit the number 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.

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.

Sampling and Testing

We take more than 10 samples per month across our water system. We're looking for bacteria, metals, and chemicals to make sure the water continues to be safe to drink.

Bacteria

We look for bacteria regularly, as required by law, and there are 10 locations (five upstream and five downstream) in the water system where we take samples for analysis. More thorough testing, evaluation, and action are required if bacteria are found in even a small percentage of tests.

Disinfection by-products (Trihalomethane (THM) or Haloacetic Acids (HAA))

8 (two per quarter) times per year we look for byproducts of the disinfection process. When chlorine, the disinfectant we use to protect against the water of bacteria and viruses, starts to break down in the water, it can form new compounds. These compounds, trihalomethanes (THM) and haloacetic acid (HAA) have been known to cause cancer at high levels. The legal limit for drinking water is 80 parts per billion and 60 parts per billion respectively. We test for these compounds at 2 different locations, 17050 Hamilton Road and 14400 Oakland Avenue, in the water system.

Lead and Copper

We take water samples from June 1st to September 30th at 30 different homes in our system every year to test them for lead and copper. More information about lead and copper can be found on page 5.

Your Water Meets All Standards

In the table on page 4-5, you will find all the substances that we detected in your drinking water.

The substances highlighted below represent where our system has had challenges meeting the requirements of the Safe Drinking Water Act. We are (or have) taken action to address these issues by (Insert actions completed or to be completed such as:

- Making changes to our water source(s)
- Modifying or installing additional treatment technology
- Changing our distribution system operational approach
- Making repairs, replacement, or rehabilitation of our water system components. We are currently in the construction phase of the Drinking Water State Revolving Fund (DWSRF) of this work which is expected to be completed in November 2022. For more information about this project, you can call us at 313-865-1876 or go online at highlandparkmi.gov/Services/Water.

Here, we would like to highlight a few substances that we pay close attention to in our water because of their potential effects on public health:

Lead <i>Tested throughout the Drinking Water System between June 1 and September 30. Testing is done annually. The most recent tests were done in 2022.</i>	
Amount We Found	1 ppb – 38 ppb
Ideal Goal (MCLG)	0 ppb
90 th Percentile	9 ppb
Action Level	15 ppb
Highest Amount Detected	38 ppb
Source	Brighton Analytical LLC
Violation	No

Copper <i>Tested throughout the Drinking Water System between June 1 and September 30. Testing is done annually. The most recent tests were done in 2022.</i>	
Amount We Found	0 ppm
Ideal Goal (MCLG)	0 ppm
90 th Percentile	0 ppm
Action Level	1.3 ppm
Highest Amount Detected	0.1 ppm
Source	Brighton Analytical LLC
Violation	No

Total Trihalomethanes¹ <i>Tested throughout the Drinking Water System. Over 5 samples were collected throughout the City of Highland Park quarterly.</i>	
Amount We Found	10 TTHM – 52 TTHM
Ideal Goal (MCLG)	0
Highest Level Allowed (MCL)	80 ppb
Lowest Amount Detected	2.3 ppb
Highest Amount Detected	38 ppb
Source	Brighton Analytical LLC
Violation	No

Total Haloacetic Acids <i>Tested throughout the Drinking Water System. Over 5 samples were collected throughout the City of Highland Park quarterly.</i>	
Amount We Found	8.1 HAAs – 16.4 HAAs
Ideal Goal (MCLG)	0 ppb
Highest Level Allowed (MCL)	60 ppb
Lowest Amount Detected	1.5 ppb
Highest Amount Detected	8.1 ppb
Source	Brighton Analytical LLC
Violation	No

MCLG: Maximum Contaminant Level Goal or 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.

MCL - Maximum Contaminant Level: This is the highest level allowed of a pollutant in drinking water. MCLs are set as close as possible to the goal using the best available technology.

PPM: Part Per Million = 1 drop of water in a hot tub

PPB - Part Per Billion = 1 drop of water in an Olympic size swimming pool

¹ Compliance is based on the running annual average at each location (LRAA). The Highest LRAA reflects the highest average at any location and the Range Detected reflects all samples used to calculate the running annual averages.

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.

Your Role in Water Quality

Check Your Home or Business' Plumbing for Lead and Copper

We work hard to provide high quality water when it arrives on your property. Once the water we provide passes through the meter on your property however, it is exposed to a whole new environment in your home that we have no control over. But you do.



Some of the things that can change the water quality on your property include your plumbing and pipe material, how long you go without running the water, and whether or how you connect outdoor hoses to your home's water supply. 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 Highland Park is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact the Safe Drinking Water Hotline. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <http://www.epa.gov/safewater/lead> (opens in a new window).

Run Water After Vacation

Another factor that affects water quality in your home is how "stale" the water is. When you leave your home or business for a long time, as you may when you take a vacation, the water in the pipes and plumbing doesn't move. When water has been sitting in the pipes for days, bacteria can grow, and if you have lead or copper plumbing, those metals can start to seep into the water. The best thing to do when you get back from being away after a long time is to run the water on full blast for 30 seconds to two minutes before using it for drinking or cooking. And always use cold water for cooking, to draw in fresh water from the outside.



Safely Connect Outdoor Hoses

A third factor that can influence water quality in your home are connections to your water outside your home. The outdoor spigot connection to a hose provides a potential way for pollutants to enter your plumbing. If you use the hose to spray chemicals on your yard by connecting the nozzle to a spray bottle, or if you have a sprinkler system connected, there is the potential for chemicals from the bottle or the lawn to be accidentally sucked back into your internal plumbing. To prevent this from happening, we recommend (and in some states it is the law) that you have a device

installed to prevent that from happening.

Look Out for Special 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 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 at (800) 426-4791.

Additional Resources

- Information on lead in drinking water: www.epa.gov/safewater/lead
- Requirements of the Water Quality Report (also known as the Consumer Confidence Report): http://www.epa.gov/sites/default/files/201405/documents/guide_qrg_ccr_2011.pdf
- The Safe Drinking Water Act: www.epa.gov/sdwa (opens in a new window)
- CDC Guide to Understanding your CCR: http://www.cdc.gov/healthywater/drinking/public/understanding_ccr.html
- American Water Works Association: <http://www.awwa.org> (opens in a new window)
- Water Environment Federation: <http://www.wef.org> (opens in a new window)
- Groundwater Information: <https://waterdata.usgs.gov/nwis> and <http://www.epa.gov/ground-water-and-drinking-water/> (opens in a new window)
- Michigan Department of Health and Human Services (MDHHS): 844-934-1315 | <https://www.michigan.gov/mdhhs/safety-injury-prev/environmental-health/topics/care-for-mi-drinking-water/testing>

Table of Water Data for 2021

The samples were taken in 2021 unless noted otherwise.

Lead and Copper – Monitoring at the Customer’s Tap in 2021

Regulated Contaminant	Test Date	EPA’s AL - for a representative sampling of customer homes	Ideal Goal (MCLG)	90% of customers’ homes were less than	Violation	Source
Lead (ppb)	June 1 – December 30, 2021	15 ppb	0 ppb	9 ppb	No	Lead services lines, corrosion of household, plumbing including fittings and fixtures; erosion of natural deposits”
Copper (ppm)	June 1 – December 30, 2021	1.3 ppm	1.3 ppm	0 ppm	No	Corrosion of household plumbing system; Erosion of natural deposits; leaching from wood preservatives.
<p>* 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.</p>						

MCL - Maximum Contaminant Level: This is the highest level allowed of a pollutant in drinking water. MCLs are set as close as possible to the goal using the best available technology.

MCLG - Maximum Contaminant Level Goal: The goal level of a pollutant in drinking water. Below this amount, there is no known or expected health effect.

PPB - Part Per Billion = 1 drop of water in an Olympic size swimming pool

PPM - Part Per Million = 1 drop of water in a hot tub

Health Effects Language

Contaminant	Susceptible Vulnerable Subpopulation	Level of Concern
Fecal coliform or E. coli	Infants, young children, the elderly and people with severely compromised immune supplies	Confirmed Presence
Copper	People with Wilson’s Disease	1.3 mg/l (ppm)
Fluoride	Children	4.0 mg/l (ppm)
Lead	Infants and Children	15.0 µg/l (ppb)
Nitrate	Infants below the age of six months	10.0 mg/l (ppm)
Nitrite	Infants below the age of six months	1.0 mg/l (ppm)
<p>Notes:</p> <ul style="list-style-type: none"> Confirmed presence means that the routine distribution system sample or the repeat sample was total coliform-positive or fecal-positive or E. coli-positive and the other sample (routine distribution system sample or repeat sample) was fecal-positive or E. coli-positive. ppm parts per million; ppb parts per billion Health effects language is found in R 325.10405. 		

2021 Inorganic Chemicals (IOC) – Annual Monitoring at Plant Finished Tap

Regulated Contaminant	Test Date	Highest Level Allowed (MCL)	Ideal Goal (MCLG)	Highest Result	Range of Test Results for the Year	Violation	Source
Barium	05/16/2017	2 ppm	2 ppm	0.01	N/A	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	04/13/2021	4 ppm	4 ppm	0.55	N/A	No	Erosion of natural deposit; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	04/13/2021	10 ppm	10 ppm	0.33	N/A	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

MCL - Maximum Contaminant Level: This is the highest level allowed of a pollutant in drinking water. MCLs are set as close as possible to the goal using the best available technology.

MCLG - Maximum Contaminant Level Goal: The goal level of a pollutant in drinking water. Below this amount, there is no known or expected health effect.

PPB - Part Per Billion = 1 drop of water in an Olympic size swimming pool

PPM - Part Per Million = 1 drop of water in a hot tub

Total Chlorine Residual – Continuously Monitored at Water Works Park Plant

Sample Location	Minimum Disinfectant Residual Level Allowed	Highest Level Detected	Yearly Range	Violation	Source
Waterworks Park Plant	4 ppm	0.75	0.58 – 0.83 ppm	No	Water additive used to control microbes

PPM - Part Per Million = 1 drop of water in a hot tub

Total Organic Carbon – Tested at Water Works Park Plant

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 monthly there is no requirement for TOC removal.	Erosion of natural deposits

2021 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
0.21 NTU	100%	no	Soil Runoff
<p><i>Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.</i></p>			

NTU - Nephelometric Turbidity Units: Turbidity is measured with an instrument called a nephelometer. Measurements are given in nephelometric turbidity units.

2021 Special Monitoring – Lead and Copper at the Customers Tap in 2021

Contaminant	Test Date	Unit	MCLG	MCL	Highest Level Detected	Source of Contaminant
Sodium	04/13/2021	ppm	n/a	n/a	4.39	Erosion of natural deposits

MCL - Maximum Contaminant Level: This is the highest level allowed of a pollutant in drinking water. MCLs are set as close as possible to the goal using the best available technology.

MCLG - Maximum Contaminant Level Goal: The goal level of a pollutant in drinking water. Below this amount, there is no known or expected health effect.

PPM - Part Per Million = 1 drop of water in a hot tub

Disinfection By-Products – Stage 2 Disinfection By-Products Monitoring in the Distribution System

Regulated Contaminant	Highest Level Allowed (MCL) - One Year Average	Maximum Locational Running Annual Average (Year)	System Wide Range of Results	Violation	Source
Total Trihalomethanes (TTHMs)	80	29 ppb	10 – 52 ppm	No	By-product of drinking water chlorination
Total Haloacetic Acids (THAAs)	60	13 ppb	8 – 16 ppm	No	By-product of drinking water chlorination

Disinfection By-Product – Monitoring at the Waterworks Park Plant Finished Tap

Regulated Contaminant	Test Date	Unit	Allowed Level MCL	Highest Level RAA	Range of Quarterly Results	Violation	Major Sources in Drinking Water
Bromate	2021	ppb	10	ND	ND - ND	No	By-product of drinking water ozonation

TTHMs - Total Trihalomethanes

THAAs - Total Haloacetic Acids

MCL - Maximum Contaminant Level: This is the highest level allowed of a pollutant in drinking water. MCLs are set as close as possible to the goal using the best available technology.

PPB - Part Per Billion = 1 drop of water in an Olympic size swimming pool

PPM - Part Per Million = 1 drop of water in a hot tub

ND – No Detection

These tables are based on tests conducted by GLWA in the year 2021 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.

Unregulated Contaminant Monitoring

Parameter	Units	Max.	Min.	Average.
Turbidity	NTU	0.12	0.05	0.08
Total Solids	ppm	171	90	139
Total Dissolved Solids	ppm	142	92	121
Aluminum	ppm	0.170	0.014	0.069
Iron	ppm	0.3	0.1	0.2
Copper	ppm	ND	ND	0.000
Magnesium	ppm	8.2	5.9	7.4
Calcium	ppm	28.6	20.5	25.0
Sodium	ppm	5.5	4.4	5.0
Potassium	ppm	1.3	0.8	1.0
Manganese	ppm	ND	ND	0.000
Lead	ppm	ND	ND	0.000
Zinc	ppm	0.002	ND	0.001
Silica	ppm	2.6	1.7	2.2
Sulfate	ppm	25.2	19.7	22.9
Phosphorus	ppm	11.9	8.4	10.1
Free Carbon Dioxide	ppm	0.51	0.36	0.42
Total Hardness	ppm	9.2	5.7	7.6
Total Alkalinity	ppm	110	94	101
Carbonate Alkalinity	ppm	80	70	73
Bi-Carbonate Alkalinity	ppm	0	0	0
Non-Carbonate Hardness	ppm	80	70	73
Chemical Oxygen Demand	ppm	34	14	28
Dissolved Oxygen	ppm	5.8	ND	2.9
Chloride	ppm	16.4	9.7	12.9
Nitrite Nitrogen	ppm	ND	ND	0.0
Nitrate Nitrogen	ppm	0.44	0.22	0.33
Fluoride	ppm	0.84	0.45	0.63
pH		7.39	7.20	7.29
Specific Conductance @ 25 °C.	µmhos	232	182	216
Temperature	°C	23.5	2.5	13.6

PPB - Part Per Billion = 1 drop of water in an Olympic size swimming pool

PPM - Part Per Million = 1 drop of water in a hot tub

µmhos – Micromhos = Measure of electrical conductance of water

NTU – Nephelometric Turbidity Units

°C – Celsius = A scale of temperature in which water freezes at 0° and boils at 100° under standard conditions

Definitions

ACRONYMS	DEFINITIONS
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.
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.
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
MRDLG	Maximum Residual Disinfectant Level Goal: This is the lowest amount of cleaning chemical drinking water should have, because it is the lowest amount needed to make sure bacteria and viruses can't live.
MRDL	Maximum Residual Disinfectant Level: 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.
Level 1 Assessment	A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
Level 2 Assessment	A Level 2 assessment is 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.
mg/L	Number of milligrams in one liter of water
pCi/L	Picocuries per liter (a measure of radioactivity)
NA	Not applicable
ND	Not detected
NR	Monitoring not required, but recommended
NTU	Nephelometric Turbidity Units: Turbidity is measured with an instrument called a nephelometer. Measurements are given in nephelometric turbidity units.
PPM	Part Per Million= 1 drop of water in a hot tub
PPB	Part Per Billion = 1 drop of water in an Olympic size swimming pool
PPT	Part Per Trillion (ppt) = 1 drop of water in a lake that's 6 square acres

En español

Este informe incluye información importante sobre el agua potable. Si tiene preguntas o comentarios sobre éste informe en español, contáctenos por correo electrónico a hpwaterdepartment@metroca.net o por teléfono al 313-865-1876.