

City of Highland Park Water Department

# Annual Water Quality Report for 2023

PWS ID: MI-0003140

## 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 [hewaterdepartment@metroca.net](mailto:hewaterdepartment@metroca.net) o por teléfono al 313-865-1876.



# 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 inform you about the quality of your drinking water and help you make informed decisions about the water you drink. Throughout this report, we will explain where your water comes from, the results of the sampling that we performed, and the efforts to protect your water.

If, upon reading this report, you have any questions, please contact the Highland Park Water Department at 313.865.1876 and [hpwaterdepartment@metroca.net](mailto:hpwaterdepartment@metroca.net).

Sincerely,



**Damon L. Garrett, PE**  
**Water Director**  
14110 Woodward Avenue  
Highland Park, MI 48203  
313-865-1876 | [hpwaterdepartment@metroca.net](mailto:hpwaterdepartment@metroca.net)

Published June 2024

## ELECTED OFFICIALS

**Glenda McDonald,**  
Mayor

**Brenda Green,**  
City Clerk

## CITY COUNCIL

**Jamal K. Thomas,**  
Council President

**Shermaine Robinson,**  
Council President Pro Tem

**Temeko Manica,**  
Council Member, District 1

**Kallela Martin,**  
Council Member, District 2

**Khursheed Ash-Shafii,**  
Council Member, District 3

# 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. The City of Highland Park water comes from the Water Works Park and Springwells Treatment Plants in Detroit.

## We Protect the Source

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 US, and parts of the Thames River, Little River, Turkey Creek, and Sydenham watersheds in Canada. The Michigan Department of Environmental Quality, in partnership with the US 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 GLWA's Detroit River source water for potential contamination. 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 potential contaminant sources. The report described GLWA's Detroit River intake as highly susceptible to potential contamination. GLWA's Water Works Park and Springwells treatment plants that draw water from the Detroit River have historically provided satisfactory treatment and meets 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 Belle Isle Intake. The plan has seven elements that include: the 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.

## 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, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, 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 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, 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 that 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.

## **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.

## **Your Water Quality**

Highland Park distributes water treated at the Water Works Park and Springwells Treatment Plants that was treated by the Great Lakes Water Authority (GLWA). Most of the regulated drinking water contaminants and water treatment processes are monitored at the Water Works Park and Springwells Treatment Plants. Highland Park monitors for additional parameters within the

community of Highland Park: Bacteria, Chlorine, Disinfection Byproducts, and Lead and Copper.

### **Bacteria**

We collect monthly water samples at 10 locations throughout Highland Park to analyze for bacteria (total coliforms and *e. coli*) as required by regulations. We did not detect any bacteria in any of the 120 samples we collected in 2023. If bacteria had been detected, more thorough testing, evaluation, and action would have been required.

### **Chlorine**

We analyze samples for chlorine every time we collect a sample to analyze for bacteria. Chlorine should be present in every sample to protect the water traveling in our pipes from potential contamination, but it shouldn't be so high that it creates excess disinfection byproducts. All chlorine samples collected meet these requirements.

### **Disinfection byproducts (Trihalomethane (TTHM) or Haloacetic Acids (HAA5))**

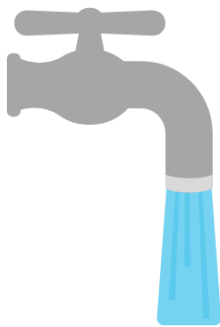
Four times per year, we look for byproducts of the disinfection process. When chlorine, the disinfectant we use to protect against bacteria and viruses, starts to break down in the water, it can form new compounds. These compounds, total trihalomethanes (TTHM) and haloacetic acid (HAA5), have been known to cause cancer at high levels. The legal limit for drinking water is 80 parts per billion and 60 parts per billion, respectively. We tested these compounds at two different locations, 17050 Hamilton Road and 14400 Oakland Avenue, in the water system.

# Lead and Copper

In 2023 Highland Park replaced 9 lead water service lines. All the lead water service lines were replaced from the water main to the water meter inside the home. As a result of these replacements, Highland Park has 2,477 lead service lines, 292 unknown service lines, and 3,438 total service lines. Replacing lead service lines with non-lead service lines reduces the risk of lead in water.

The City collects water samples from June 1<sup>st</sup> to September 30<sup>th</sup> at 20 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 6.

**Immediately following a lead service line replacement, please read and follow ALL instructions before using your water.**



## FLUSH YOUR PIPES

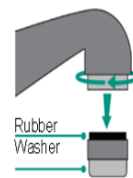
**BEFORE USING ANY water in your home, run water through your household plumbing.** Construction can release lead particles and sediment. **DO NOT USE** tap water, filtered water dispensers, or icemakers until the flushing steps below are complete.

- Remove aerators from all faucets in your home.
- Open all the cold water taps in the house, starting at the lowest level of your home. Continue opening all the cold water taps throughout the house, opening the highest or farthest faucet last.
- Run water for 30 minutes to flush out lead particles.
- Turn off each tap, starting with the first faucet you opened, finishing with the top floor.



## CLEAN YOUR AERATORS

Aerators are located on the end of your faucet. Over time, aerators collect debris and need to be cleaned periodically. Unscrew the end of the faucet. Brush and rinse the aerator before screwing it back on.



Aerator Housing



## USE A FILTER FOR SIX MONTHS

**Use the NSF/ANSI Standard 53 filter certified for lead reduction provided by the Highland Park Water Department.** Use this filter for drinking water, cooking, beverages, and infant formula.

- Always use cold water in the filter.
- Remove and clean faucet aerators monthly on faucets without filters.
- Flush your pipes if water has not been used during the last six hours.

**Replace cartridges as instructed by the manufacturer.**

# What Steps can I take to maintain water quality in my home?



Residents can take steps to protect the water quality in their homes. Actions that help to ensure water quality include:

- Always use cold water for drinking and preparing food.
- Flush your tap before using it for drinking or cooking any time the water in a faucet has gone unused for more than 6 hours. If you have a service line that is lead, galvanized, previously connected to lead, or unknown but likely to be lead, 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.
- Clean faucet aerators and strainers monthly. Replace aerators that are in poor condition.
- Clean and disinfect sinks and faucets regularly.
- Replace your faucet, refrigerator, and icemaker filters according to the manufacturer's recommendations.

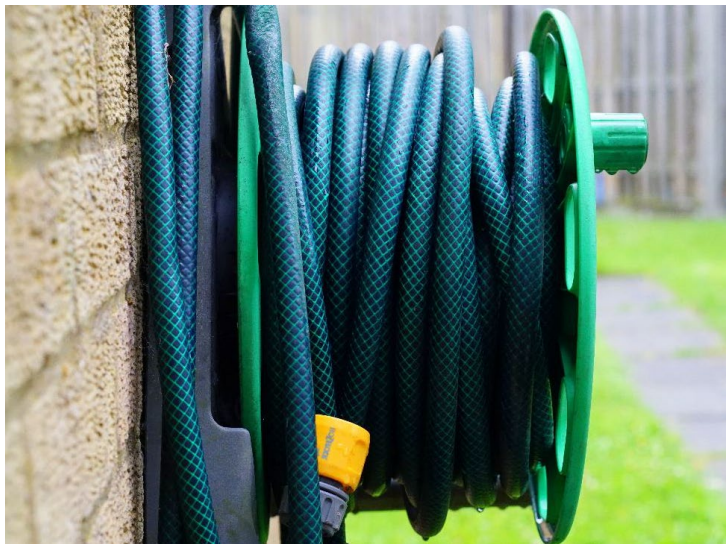
Flushing tap water is a simple and inexpensive measure you can take to protect your family's health. When water stands in lead pipes or pipes with lead solder for several hours or more, the lead may dissolve into your drinking water. This means the first water drawn from the tap in the morning or later in the afternoon after returning from work or school may contain higher levels of lead.

## Information about 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. 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. Highland Park 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 service line that is lead, galvanized, previously connected to lead, or unknown but likely to be lead, 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 or at <http://www.epa.gov/safewater/lead>

## Additional beneficial plumbing tips:

- Drain and flush your hot water heater annually.
- Identify and replace plumbing fixtures containing lead. Brass faucets, fittings, and valves leach lead into drinking water. **Drinking water plumbing products sold after January 4, 2014, must, by law, contain very low levels of lead.**
- Be sure backflow protection devices are installed properly.
- Corrosion may be greater if grounding wires from the electrical system are attached to your pipes. Check with a licensed electrician or your local electrical code to determine if your wiring can be ground elsewhere. **DO NOT** attempt to change the wiring yourself because improper grounding can cause electrical shock and fire hazards.



## Safely Connect Outdoor Hoses

Another factor that can influence water quality in your home is connections to the water outside your home. The outdoor spigot connection to a hose provides a potential way for pollutants to enter your plumbing.

## Additional Resources

- Information on lead in drinking water: [www.epa.gov/safewater/lead](http://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](http://www.epa.gov/sites/default/files/201405/documents/guide_qrg_ccr_2011.pdf)

- The Safe Drinking Water Act: [www.epa.gov/sdwa](http://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](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 2023

Below is the data collected in 2023. The information following this section explains your water source.

## Chlorine Residual – Monitoring in the Distribution System

Regulated Contaminant	Maximum Disinfectant Residual Level Allowed	Highest Level RAA	Yearly Range	Violation	Source
Chlorine Residual	4 ppm	0.66 ppm	0.21 – 1.4 mg/L	No	Water additive used to control microbes

## Disinfection Byproducts – Stage 2 Disinfection Byproducts 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	35.8 ppm	7.5 – 62 ppm	No	Byproduct of drinking water chlorination
Total Haloacetic Acids (HAA5)	60	19.6 ppm	7.9 – 29.6 ppm	No	Byproduct of drinking water chlorination

## Lead and Copper – Monitoring at the Customer’s Tap

Regulated Contaminant	Test Date	EPA’s AL - for a representative sampling of customer homes	Ideal Goal (MCLG)	90% of customers’ homes were less than*	Range of Test Results for the Year	Violation	Source
Lead (ppb)	June 1 – September 30, 2023	15 ppb	0 ppb	6 ppb	0 ppb – 15 ppb	No	Lead services lines, corrosion of household, plumbing, including fittings and fixtures; erosion of natural deposits.
Copper (ppm)	June 1 – September 30, 2023	1.3 ppm	1.3 ppm	0 ppm	0-0.5 ppm	No	Corrosion of household plumbing system; Erosion of natural deposits; leaching from wood preservatives.

\* 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.

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

PPM - Part Per Million



### Water Works Park 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
Fluoride	04/11/2023	4 ppm	4 ppm	0.60 ppm	N/A	No	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	04/11/2023	10 ppm	10 ppm	0.66 ppm	N/A	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

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

Regulated Contaminant	Test Date	Unit	Highest Level Allowed (MCL)	Ideal Goal (MCLG)	Highest Level RAA	Range of Quarterly Results	Violation	Major Sources in Drinking Water
Bromate	2023	ppb	10	0	ND	ND - ND	No	By-product of drinking water ozonation

*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*

*PPM – Part Per Million*

*ND – No Detection*

## Total Organic Carbon – Tested at Water Works Park Plant

Contaminant	Test Date	Unit	MCLG	MCL	Level Detected	Range	Violation	Source of Contaminant
Total Organic Carbon	Samples Taken Quarterly	ppm	N/A	Treatment Technique	2.04	1.78 - 2.04	Yes	Erosion of natural deposits

\*Health Effects: Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THM) and haloacetic acids (HAA). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver, or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.

Steps taken: GLWA has improved its removal of the total organic carbon (TOC) through optimized coagulation and has incorporated alternative compliance monitoring of specific ultraviolet absorption as a measure of continued compliance with the TOC rule. The 2023 violation duration was the third and fourth quarters.

## 2023 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
0.12 NTU	100%	No	Soil Runoff

*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.*

## 2023 Special Monitoring

Contaminant	Test Date	Unit	MCLG	MCL	Highest Level Detected	Source of Contaminant
Sodium	04/11/2023	ppm	N/A	N/A	7.1	Erosion of natural deposits

*These tables are based on tests conducted by GLWA in the year 2023 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.*

## 2023 Water Works Park Tap Water Mineral Analysis – Yearly Summary

Parameter	Units	Max.	Min.	Average
Turbidity	N.T.U.	0.17	0.04	0.09
Total Solids	mg/L	158	119	136
Total Dissolved Solids	mg/L	150	105	127
Aluminum	mg/L	0.160	0.021	0.074
Iron	mg/L	0.4	0.2	0.3
Copper	mg/L	0.001	ND	0.000
Magnesium	mg/L	8.3	7.4	7.8
Calcium	mg/L	28.4	25.4	26.6
Sodium	mg/L	7.1	4.6	5.3
Potassium	mg/L	1.3	1.0	1.0
Manganese	mg/L	ND	ND	0.000
Lead	mg/L	ND	ND	0.000
Zinc	mg/L	0.022	ND	0.002
Silica	mg/L	2.6	1.6	2.1
Sulfate	mg/L	28.0	20.1	22.5
Chloride	mg/L	15.0	8.5	10.8
Phosphorus	mg/L	0.56	0.35	0.46
Free Carbon Dioxide	mg/L	11.3	5.5	7.0
Total Hardness	mg/L	152	96	114
Total Alkalinity	mg/L	90	72	80
Carbonate Alkalinity	mg/L	0	0	0
Bi-Carbonate Alkalinity	mg/L	90	72	80
Non-Carbonate Hardness	mg/L	72	6	34
Chemical Oxygen Demand	mg/L	11.5	ND	3.6
Dissolved Oxygen	mg/L	13.9	8.3	10.3
Nitrite Nitrogen	mg/L	ND	ND	0.0
Nitrate Nitrogen	mg/L	0.66	0.32	0.39
Fluoride	mg/L	0.86	0.13	0.58
pH		7.47	7.17	7.37
Specific Conductance @ 25 °C.	µmhos	221	161	199
Temperature	°C	23.0	6.7	14.0

## 2023 Springwells Regulated Detected Contaminants Table

### 2023 Inorganic Chemicals – 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
Fluoride	04/11/2023	4 ppm	4 ppm	0.86 ppm	N/A	No	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	04/11/2023	10 ppm	10 ppm	0.63 ppm	N/A	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

### 2023 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
0.09 NTU	100%	No	Soil Runoff

### Total Organic Carbon – Tested at Springwells Water Treatment Plan

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

### 2023 Special Monitoring

Contaminant	Test Date	Unit	MCLG	MCL	Highest Level Detected	Source of Contaminant
Sodium	4/11/2023	ppm	N/A	N/A	7.0	Erosion of natural deposits

These tables are based on tests conducted by GLWA in the year 2023 or 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 water quality, but some are more than one year old.

## 2023 Springwells Tap Water Mineral Analysis

Parameter	Units	Max.	Min.	Average
Turbidity	NTU	1.08	0.03	0.14
Total Solids	ppm	153	115	138
Total Dissolved Solids	ppm	156	102	129
Aluminum	ppm	0.077	0.018	0.038
Iron	ppm	0.4	0.2	0.3
Copper	ppm	0.003	ND	0.001
Magnesium	ppm	8.4	7.2	7.9
Calcium	ppm	28.5	25.3	26.9
Sodium	ppm	7.0	4.6	5.3
Potassium	ppm	1.3	1.0	1.0
Manganese	ppm	0.001	ND	ND
Lead	ppm	ND	ND	ND
Zinc	ppm	0.003	ND	0.001
Silica	ppm	2.9	1.1	2.1
Sulfate	ppm	32.3	22.5	25.0
Chloride	ppm	11.5	9.5	10.4
Phosphorus	ppm	0.61	0.37	0.49
Free Carbon Dioxide	ppm	11.6	4.4	8.4
Total Hardness	ppm	146	90	116
Total Alkalinity	ppm	94	70	77
Carbonate Alkalinity	ppm	ND	ND	ND
Bi-Carbonate Alkalinity	ppm	94	70	77
Non-Carbonate Hardness	ppm	66	10	39
Chemical Oxygen Demand	ppm	11.1	ND	4.5
Dissolved Oxygen	ppm	20.0	7.2	11.4
Nitrite Nitrogen	ppm	ND	ND	0.0
Nitrate Nitrogen	ppm	0.63	0.32	0.38
Fluoride	ppm	0.86	0.10	0.59
pH		7.52	7.09	7.28
Specific Conductance @ 25 °C.	µmhos	219	180	191
Temperature	°C	23.4	3.4	13.2

## Definitions

SYMBOL	ABBREVIATION	DEFINITION/EXPLANATION
>	Greater than	
°C	Celsius	A scale of temperature in which water freezes at 0° and boils at 100° under standard conditions.
AL	Action Level	The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.
HAA5	Haloacetic Acids	HAA5 is total 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 allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
MCLG	Maximum Contaminant Goal	The level of a contaminant in drinking water below which there is no known or expected risk to health.
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 the control of microbial contaminants.
MRDLG	Maximum Residual Disinfectant Level Goal	The level of Drinking water disinfectant below which there is no known or expected risk to health. MRLDGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
n/a	Not applicable	
ND	Not detected	
NTU	Nephelometric Turbidity Units	Measures the cloudiness of water.
ppb	Parts Per Billion (one in one billion)	The ppb is equivalent to micrograms per liter. A microgram = 1/1000 milligrams.
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 analytical results for all samples during the previous four quarters.
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.
µmhs	Microhms	Measure of electrical conductance of water.

**Communities served by Springwells water treatment plant.**

**Required information on Great Lakes Water Authority's (GLWA) Administrative Compliance Agreement (ACA) with Michigan Department of Environment, Great Lakes, and Energy Drinking Water and Environment Health Division (EGLE):**

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Great Lakes Water Authority (GLWA) is required to notify water users of any unresolved significant deficiencies identified by the Michigan Department of Environment, Great Lakes, and Energy, Drinking Water and Environment Health Division (EGLE). Below is the status of significant deficiencies in the GLWA water system identified by EGLE:

Date Identified by EGLE	Description	Compliance Agreement Deadline	Status
05-25-2022	Inoperable rapid mixing equipment at the Springwells 1930's water plant	12-31-2023	Completed in December 2023.
05-25-2022	Inoperable flocculation equipment at the 1958 Springwells water plant	11-11-2027	Phase I - Construction phase in progress and is scheduled to be completed in 2025