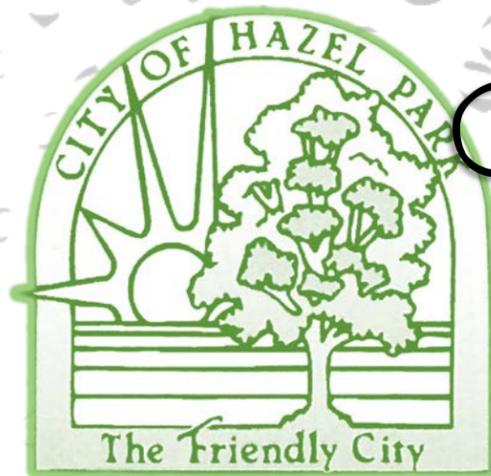


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City of Hazel Park 2017 Water Quality Report

Drinking water quality is important to our community and the region. The City of Hazel Park 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. The City of Hazel Park 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 The City of Hazel Park water professionals in delivering some of the nation's best drinking water. Together, we remain committed to protecting public health and maintaining open communication with the public about our drinking water.

The City of Hazel Park 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 the Hazel Park Water Department with any questions or concerns. (248) 546-4076

Where does our water come from?

The City of Hazel Park purchases its drinking water from the Great Lakes Water Authority (formally DWSD). Our water supply comes from surface water supplied from Belle Isle intake and is processed at the Northeast Treatment Plant on Eight Mile Road near Hoover Road.

Hazel Park also receives water from Lake Huron that is processed at our Lake Huron Plant located in Fort Gratiot, Michigan.

Your source water comes from the Detroit River, situated within Lake Huron, Lake St. Clair, Clinton River, Detroit River, Rouge River, Ecorse River, 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 in partnership with the U.S. Geological Survey, the Great Lakes Water Authority, and the Michigan Public Health Institute performed a source water assessment in 2004 to determine the susceptibility of potential contamination. The susceptibility rating is on a seven-tiered scale from "very low" to "very high" based primarily on geologic sensitivity, water chemistry, and contaminant sources. The susceptibility of our Detroit River source water intakes were determined to be highly susceptible to potential contamination and Lake Huron source water intake is categorized as having a moderately low susceptibility to potential contaminant sources. However, all four GLWA water treatment plants that use source water from the Detroit River have historically provided satisfactory treatment of this source water to meet drinking water standards.

If you would like to know more about this report, please visit the Great Lakes Water Authority website at www.GLWater.org or contact Mary Lynn Semegen, (313) 926-8102, mary.semegen@glwater.org.

How do we know our water is safe?

The treatment plant process begins with disinfecting the source water with chlorine to kill the microorganisms that can cause illness. Next, a chemical called Alum is added to the water to cause the fine particles that make the water cloudy, clump together and settle to the bottom of the basin. This is called coagulation and sedimentation. Fluoride is added to protect our teeth from cavities and decay. Then the filtration process begins where the water flows through fine sand filters. These filters remove more particles and microorganisms that are resistant to chlorine. Next, a small amount of phosphoric acid is added to control the lead that may dissolve from your household plumbing systems. Finally, chlorine is added before it leaves the treatment plant to keep the water disinfected as it travels through the water mains to reach your homes. The water is tested for various substances before the treatment process, during different stages of treatment, and throughout the distribution system. The Great Lakes Water Authority tests hundreds of samples each week in their certified laboratories. GLWA water meets all safety and health standards and also ranks among the top ten in the United States for quality and value.

Special Information

Safe drinking water is a shared responsibility. The water that GLWA delivers to our community does not contain lead. Lead can leach into drinking water through home plumbing fixtures, and in some cases, customer service lines. Corrosion control reduces the risk of lead and copper from leaching into your water. Orthophosphates are added during the treatment process as a corrosion control method to create a protective coating in service pipes throughout the system, including in your home or business. The City of Hazel Park 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.

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. Hazel Park Water Department is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components.

When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the *Safe Drinking Water Hotline* at (800) 426-4791 or at <http://www.epa.gov/safewater/lead>.

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 800-426-4791

Public Discussion

We invite public participation in decisions that affect drinking water quality. City Council meetings are regularly scheduled on the 2nd and 4th Tuesdays of the month at 7:00 pm. For more information about your water or the contents of this report, contact the City of Hazel Park Water Department at (248) 546-4076.

For more information about safe drinking water visit the US Environmental Protection Agency at : www.epa.gov/safewater/

WATER QUALITY TABLE

Regulated Contaminants	Test Date	Unit	Heath Goal MCLG	Allowed Level MCL	Highest Level Detected	Range of Detection	Major Sources in Drinking Water	Violations
INORGANIC CHEMICALS - MONITORING AT PLANT FINISHED WATER TAP								
Fluoride	5/16/2017	ppm	4	4	0.66	n/a	Erosion of natural deposits; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.	No
Nitrate	5/16/2017	ppm	10	10	0.44	n/a	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	No
Barium	5/16/2017	ppm	2	2	0.01	n/a	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	No

Regulated Contaminants	Test Date	Unit	Heath Goal MCLG	Allowed Level MCL	Highest LRAA	Range of Detection	Major Sources in Drinking Water	Violations
DISINFECTION BY-PRODUCTS - MONITORING IN DISTRIBUTION SYSTEM STAGE 2 DISINFECTION BY-PRODUCTS								
Total Trihalomethanes (TTHM)	2017	ppb	n/a	80	33	19-50	By-product of drinking water disinfection	No
Haloacetic Acids (HAA5)	2017	ppb	n/a	60	12	9-17	By-product of drinking water disinfection	No

Regulated Contaminants	Test Date	Unit	Heath Goal MRDGL	Allowed Level MRDL	Highest RAA	Range of Detection	Major Sources in Drinking Water	Violations
DISINFECTANT RESIDUAL - MONITORING IN DISTRIBUTION SYSTEM								
Total Chlorine Residual	Jan-Dec 2017	ppm	4	4	0.78	0.66-0.82	Water Additive Used to Control Microbes	No

2017 TURBIDITY - MONITORED EVERY FOUR HOURS AT PLANT FINISHED WATER TAP								
Highest Single Measurement Cannot exceed 1 NTU			Lowest Monthly % of Samples Meeting Turbidity Limit of 0.3 NTU (minimum 95%)			Major Sources in Drinking Water		Violations
0.18 NTU			100%			Soil Runoff		No
Turbidity is a measure of the cloudiness of water. We monitor it because it is a good indicator of the effectiveness of our filtration system.								

JANUARY - DECEMBER 2017 MICROBIOLOGICAL CONTAMINANTS - MONTHLY MONITORING IN DISTRIBUTION SYSTEM								
Regulated Contaminant	MCLG	MCL	Highest Number Detected	Major Sources in Drinking Water		Violations		
Total Coliform Bacteria	0	Presence of Coliform bacteria > 5% of monthly samples	One Month - 0	Naturally Present in the Environment		No		
<i>E. coli</i> Bacteria	0	*See <i>E. coli</i> info below	Entire Year - 0	Human waste and animal fecal waste		No		

* *E. coli* MCL violation occurs if: (1) routine and repeat samples total coliform-positive and either is *E. coli*-positive, or (2) supply fails to take all required repeat samples following *E. coli*-positive routine sample, or (3) supply fails to analyze total coliform-positive repeat sample for *E. coli*.

2017 SPECIAL MONITORING					
Contaminant	Unit	MCLG	MCL	Level Detected 2017	Source of Contamination
Sodium	ppm	n/a	n/a	4.85	Erosion of natural deposits
Regulated Contaminant	Treatment Technique				Typical Source of Contaminant
Total Organic Carbon (ppm)	The Total Organic Carbon (TOC) removal ratio is calculated as the ratio between the actual TOC removal and the TOC removal requirements. The TOC was measured each quarter and because the level was low, there is no requirement for TOC removal.				Erosion of natural deposits

2017 LEAD AND COPPER MONITORING AT CUSTOMER'S TAP								
Detected Contaminants	Test Date	Unit	Health Goal MCLG	Action Level AL	90th Percentile Value*	Number of Samples Over AL	Sources of Contaminants	Violations
Lead	2017	ppb	0	15	3.9	0	Corrosion of household plumbing system; Erosion of natural deposits.	No
Copper	2017	ppm	1.3	1.3	0.1	0	Corrosion of household plumbing system; Erosion of natural deposits; Leaching from wood preservatives.	No

* The 90th percentile value means 90 percent of the homes tested have lead and copper levels below the given 90th percentile value.
Collection and sampling result information in the table provided by Great Lakes Water Authority (GLWA) Water Quality Division, ML Semegen

2015 UNREGULATED CONTAMINANT MONITORING RULE 3				
Contaminant	Unit	Results	Range of Detection	Use or Environmental Source
Hexavalent Chromium	ppb	0.10	.094 - .10	Naturally-occurring element; used in making steel and other alloys; chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation.
Chromium	ppb	0.26	.25 - .26	Naturally-occurring element; used in making steel and other alloys; chromium-3 or -6 forms are used for chrome plating, dyes and pigments, leather tanning, and wood preservation.
Strontium	ppb	108	106 - 108	Naturally-occurring element; historically, commercial use has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions

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

Table Key Definitions

Symbol	Abbreviation	Definition/Explanation
>	Greater than	
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	Location Running Annual Average	The average of sample results taken at a particular monitoring location during the previous four calendar quarters
MCL	Maximum Contaminant Level	The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
MCLG	Maximum Contaminant Level Goal	The level of a contaminant in drinking water below which there is no known or expected risk to health.
mg/L	Milligrams per liter	A milligram = 1/1000 gram, 1 milligrams per liter is equal to 1 ppm
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.
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	
ND	Not Detected	
NTU	Nephelometric Turbidity Units	Measures the cloudiness of water
pCi/L	Picocuries Per Liter	A Measure of radioactivity. Picocurie (pCi) means the quality of radioactive material producing 2.22 nuclear transformations per minute.
ppb	Parts per Billion (one in one billion)	The ppb is equivalent to micrograms per liter. A microgram = 1/1000 milligram
ppm	Parts per Million (one in one million)	The ppm is equivalent to milligrams per liter. A milligram = 1/1000 gram.
RAA	Running Annual Average	The average of sample results during the previous four calendar 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.
µmhos	Micromhos	Measure of electrical conductance of water
°C	Celsius	A Scale of temperature in which water freezes at 0° and boils at 100° under standard conditions.

Additional Information

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 and from human activity.

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.

Contaminants that may be present in source water include:

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

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

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

Organic Chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.

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