

City of Northville

2022 Consumers Annual Report on Water Quality

City of Northville Failed to Correct a Significant Deficiency Within Required Time Frame.

Our water system recently violated a drinking water requirement. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we are doing to correct this situation.

A routine inspection conducted on February 10 and 11, 2022 by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) identified significant deficiencies related to our underground finished water reservoir.

As required by the Safe Drinking Water Act, we were required to take action to correct these deficiencies. However, we failed to complete the corrective actions by the deadline established by EGLE. The City is currently performing a feasibility study regarding the underground finished water reservoir to determine the corrective actions needed. This study is in compliance with the established schedule approved by EGLE.

Northville Public Works Department wants you to know that your tap water is safe to drink and that it *meets or surpasses* all 2022 Federal and State monitoring and reporting standards for quality and safety.

The City of Northville's source water comes from the Detroit River, situated within Lake St. Clair, Clinton River, Detroit River, Rouge River, Ecorse River in the U.S., and parts of 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 Detroit Water and Sewerage Department (now known as the Great Lakes Water Authority or GLWA), 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. *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 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 a National Pollution 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 program includes seven elements that include the following: roles and duties of government units and water supply agencies, delineation of a source water protection area, identification of potential sources of contamination, management approaches for protection, contingency plans, siting of new 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- 926-8102.

What do you mean by "contaminants"?

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. Unregulated contaminants are those for which the EPA has not established drinking water standards. Monitoring helps the EPA to determine where certain contaminants occur and whether it needs to regulate them. Beginning in July 2008-April 2009, monitoring began for unregulated contaminants under the Unregulated Contaminant Monitoring Rule (UCMR2). 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 storm water runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organics, 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 are naturally occurring or the result of oil and gas production and mining activities.

"Northville's tap water meets or surpasses all 2022 Federal and State standards for quality and safety."

SPRINGWELLS WATER TREATMENT PLANT

2022 Regulated Detected Contaminants Tables

The Great Lakes Water Authority voluntarily monitors for the protozoans *Cryptosporidium* and *Giardia*. Systems using surface water, like GLWA, must provide treatment so that 99.9% of *Giardia Lamblia* is removed or inactivated.

2022 Inorganic Chemicals - Annual Monitoring at Plant Finished Tap

Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Allowed Level MCL	Highest Level Detected	Range of Detection	Violation	Major Sources in Drinking Water
Fluoride	7-12-2022	ppm	4	4	0.60	n/a	no	Erosion of natural deposit; Water additive, which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	7-12-2022	ppm	10	10	0.54	n/a	no	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Barium	5-16-2017	ppm	2	2	0.01	n/a	no	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.

2022 Disinfection Residual - Monitoring in the Distribution System

Regulated Contaminant	Test Date	Unit	Health Goal MRDLG	Allowed Level MRDL	Highest Level RAA	Range of Quarterly Results	Violation	Major Sources in Drinking Water
Total Chlorine Residual	2022	ppm	4	4	0.67	0.61-0.73	no	Water additive used to control microbes

2022 Disinfection By-Products - Stage 2 Disinfection By-Products Monitoring in the Distribution System

Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Allowed Level MCL	Highest Level LRAA	Range of Quarterly Results	Violation	Major Sources in Drinking Water
¹ (TTHM) Total Trihalomethanes	2022	ppb	n/a	80	25	20 - 25	no	By-product of drinking water chlorination
² (HAA5) Haloacetic Acids	2022	ppb	n/a	60	15	<1.0 - 15	no	By-product of drinking water chlorination

2022 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
0.25 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.

Symbol	Abbreviation	Definition / Explanation
>	Greater than	
Level 1	Level 1 Assessment	A study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our system.
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 MCLGs as feasible using the best available treatment technology.
MCLG	Maximum Contaminant Level Goal	The level of 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 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. MRDLGs 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.
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 analytical results for all samples during the previous four quarters.
SMCL	Secondary Maximum Contaminant Level	
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.
°C	Celsius	A scale of temperature in which water freezes at 0° and boils at 100° under standard conditions.
µohms	Microhms	Measure of electrical conductance of water

Is the water tested for lead?

If present, elevated levels of lead can cause serious health problems, especially for pregnant woman and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Northville 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. 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 you have a lead service line, 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 at (800) 426-4791** or at <http://www.epa.gov/safewater/lead>. Other steps to take include:

- * Anytime your water has not been used for more than six hours, run your water for 30 seconds to two minutes.
- * Always use cold water for drinking, cooking, or making baby formula.
- * Use faucets and plumbing material that are either lead free or will not leach unsafe levels of lead into your water.
- * For more information call the **Safe Drinking Water Hotline at (800) 426-4791** or at www.epa.gov/safewater/lead

Lead and Copper Monitoring at the Customer's Tap in 2022									
Regulated Contaminant	Test Date	Unit	Health Goal MCLG	Action Level AL	90 th Percentile Value*	Number of Samples Over AL	Range of Individual Samples Results	Violation	Major Sources in Drinking Water
Lead	2022	ppb	0	15	3	1	0 – 16	no	Lead services lines, corrosion of household plumbing including fittings and fixtures; erosion of natural deposits"
Copper	2022	ppm	1.3	1.3	0.2	0	0.0 - 0.1	no	Corrosion of household plumbing systems; Erosion of natural deposits.

• 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.

Total number of service lines: **2,527 Water Customers. 11 known lead service lines, 95 service lines of unknown material.**

Who is responsible for safe drinking water?

In order to ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations, which limit the amount of specific contaminants in water provided by public water systems. In turn, the City annually tests the water to ensure the regulations are being met. Beginning in January 2023, the City of Northville began monitoring quarterly for unregulated contaminants under the Unregulated Contaminant Monitoring Rule. A summary of the results for the UCMR 5 will be included in 2023 CCR. Additionally, the Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which provide the same protection for public health.

2022 Special Monitoring						
Contaminant	Test Date	Unit	MCLG	MCL	Highest Level Detected	Source of Contaminant
Sodium	7-12-2022	ppm	n/a	n/a	5.6	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 is measured each quarter and because the level is low, there is no requirement for TOC removal.					Erosion of natural deposits

Should I be concerned about drinking the City's 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. However, 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 and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791.



215 West Main · Northville MI 48167

Concerns about lead?

The United States Environmental Protection Agency (EPA) and the City of Northville are concerned about lead in your drinking water. Although most homes have very low levels of lead in their drinking water, some homes in our community (mostly because of their age) may have lead levels above the EPA action level of 15 parts per billion (ppb). Under Federal law, we are required to have a program in place to minimize lead in your drinking water. Since 1996, the Detroit Water and Sewerage Department, now called the Great Lakes Water Authority, has provided corrosion control treatment for our drinking water and whenever Northville DPW encounters a lead water service line to a home, we remove it and replace it with copper or plastic lines.

Keep in mind that elevated lead levels, if detected, are primarily from piping materials. This includes the service line to your home and all the plumbing in your home. Lead is colorless, odorless and tasteless. If you are interested in testing your water for lead, you can contact the Department of Public Works 248-449-9930 to obtain a list of local labs who can do this for you for a fee.

The Michigan Department of Environmental Quality at 586-753-3700, the Oakland County Health Division at 248-858-1280, or the Wayne County Health Department at 734-727-7000 can provide you with information about the health effects of lead and how you can have your child's blood tested.

This report contains important information about your drinking water. If you have difficulty understanding anything in this report, have someone translate it for you, or speak with someone who understands it. This notice is being sent to you by the City of Northville Department of Public Works at 248-449-9930.

Copies of this report are available at Northville City offices located at 215 West Main Street, Northville MI 48167

¹ *TTHM, also known as total Trihalomethanes, are tested by collecting one sample and testing that sample for chloroform, bromodichloromethane, dibromochloromethane, and bromoform.*

² *HAA5, also known as haloacetic acids, are tested by collecting one sample and testing that sample for monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, and monobromoacetic, and dibromoacetic acid.*