

2022 Water Quality Report for City of Lowell and Lowell Charter Township

Is my water safe?

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies.

Do I need to take special precautions?

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/Centers 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 Water Drinking Hotline (800-426-4791).

Where does my water come from?

Your water comes from 4 groundwater wells, each over 87 feet in depth, and drawing from the Grand River watershed. They are located at 1596 Bowes Road in Lowell behind the water plant.

Source water assessment and its availability

The state performed an assessment of our source water in 2003 to determine the susceptibility or the relative potential of 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 source is moderate.

Why are there contaminants in my drinking 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 Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).

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

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

How can I get involved?

We invite public participation in decisions that affect drinking water quality. Lowell City Council meetings are held on the first and third Mondays of the month at 7:00pm in the Council Chambers at Lowell City Hall, 301 E. Main, Lowell, MI. Lowell Township meetings are held at 7:00pm on the first and third Mondays of each month at the Lowell Township hall, 2910 Alden Nash s.e. Lowell, MI. For more information about your water, or the contents of this report, contact Brian VanVeelen at 897-5234. For more information about safe drinking water, visit the U.S. Environmental Protection Agency at [WWW.epa.gov/safewater/](http://www.epa.gov/safewater/).

Variance and Exemptions

The table below lists all the drinking water contaminants that we detected during the 2022 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1 to December 31, 2022. 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,

Additional Information for 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. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. City of Lowell 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 or at <http://www.epa.gov/safewater/lead>.

The City of Lowell water supply has 0 lead service lines and 431 service lines of unknown material out of a total of 1302 service lines.

Significant Deficiency

On August 25, 2021, the City of Lowell was issued a Significant Deficiency, for not meeting the firm pumping capacity for the Lowell Township water system. The city of Lowell is upsizing the pumps that provide water to Lowell Township. The firm pumping capacity was 0.576 million gallons per day (MGD) and will be increased to 1.153 MGD. This project will be completed by April 30, 2023.

Water Quality Data Table

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring levels; these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one-year-old. In this table, you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

For more information, please contact:

Water Plant Superintendent: Brian VanVeelen

Address: 1596 Bowes Rd. Lowell, MI 49331

Phone: (616) 897-5234

E-Mail: bvanveelen@ci.lowell.mi.us

Unit Descriptions	
Term	Definition
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
positive samples/month	positive samples/month: Number of samples taken monthly that were found to be positive
positive samples	positive samples/yr.: The number of positive samples taken that year
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.

Important Drinking Water Definitions	
Term	Definition
MCLG	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	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	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection 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.
MRDL	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.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

<u>Contaminants</u>	<u>MCLG or MRDLG</u>	<u>MCL, TT, or MRDL</u>	<u>Your Water</u>	<u>Range</u>		<u>Sample Date</u>	<u>Violation</u>	<u>Typical Source</u>
				<u>Low</u>	<u>High</u>			
Disinfectants & Disinfectant By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
TTHMs [Total Trihalomethanes] (ppb) City of Lowell	NA	80	16.5	NA	19.9	2022	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes] (ppb) Lowell Twp.	NA	80	10.9	NA	10.9	2022	No	By-product of drinking water disinfection
Total Haloacetic Acid (ppb) City of Lowell	NA	60	2.00	NA	2.0	2022	No	By-product of drinking water disinfection
Total Haloacetic Acid (ppb) Lowell Twp.	NA	60	2.98	NA	2.98	2022	No	By-product of drinking water disinfection
Chlorine (as Cl ₂) (ppm) City of Lowell	4	4	.516	0.40	0.62	2022	No	Water additive used to control microbes
Chlorine (as Cl ₂) (ppm) Lowell Twp.	4	4	.49	.39	.63	2022	No	
Inorganic Contaminants								
Nitrate [measured as Nitrogen] (ppm)	10	10	1.2	1.1	1.3	2022	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Arsenic (ppb)	0	10	<1.0	NA	<1.0	2020	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Fluoride (ppm)	4	4	0.71	0.0	0.85	2022	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Sodium (optional) (ppm)		MPL	15.5	13.0	18.0	2022	No	Erosion of natural deposits; Leaching
Microbiological Contaminants								
Total Coliform (positive samples/month)	0	0	0	NA	NA	2022	No	Naturally present in the environment
Fecal coliform/E. coli - in the distribution system (positive samples)	0	0	0	NA	NA	2022	No	Human and animal fecal waste
A violation occurs when a routine sample and a repeat sample, in any given month, are total coliform positive, and one is also fecal coliform or E. coli positive.								
Radioactive Contaminants								
Alpha Emitters (pCi/L)	0	15	ND	NA	NA	2022	No	Erosion of natural deposits

Per- and polyfluoroalkyl substances (PFAS)							
Regulated Contaminant	MCL, TT, or MRDL	MCLG or MRDLG	Level Detected	Range	Year Sampled	Violation Yes/No	Typical Source of Contaminant
Hexafluoropropylene oxide dimer acid (HFPO-DA) (ppt)	370	N/A	ND	ND	2022	No	Discharge and waste from industrial facilities utilizing the Gen X chemical process
Perfluorobutane sulfonic acid (PFBS) (ppt)	420	N/A	ND	ND	2022	No	Discharge and waste from industrial facilities; stain-resistant treatments
Perfluorohexane sulfonic acid (PFHxS) (ppt)	51	N/A	ND	ND	2022	No	Firefighting foam; discharge and waste from industrial facilities
Perfluorohexanoic acid (PFHxA) (ppt)	400,000	N/A	ND	ND	2022	No	Firefighting foam; discharge and waste from industrial facilities
Perfluorononanoic acid (PFNA) (ppt)	6	N/A	ND	ND	2022	No	Discharge and waste from industrial facilities; breakdown of precursor compounds
Perfluorooctane sulfonic acid (PFOS) (ppt)	16	N/A	ND	ND	2022	No	Firefighting foam; discharge from electroplating facilities; discharge and waste from industrial facilities
Perfluorooctanoic acid (PFOA) (ppt)	8	N/A	ND	ND	2022	No	Discharge and waste from industrial facilities; stain-resistant treatments
Inorganic Contaminant Subject to Action Levels (AL)	Action Level	MCLG	Your Water ¹	Range of Results	Year Sampled	Number of Samples Above AL	Typical Source of Contaminant
Lead - action level at consumer taps (ppb) City of Lowell	15	0	0	0 to 2	2022	0	Lead service lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits
Copper - action level at consumer taps City of Lowell Copper (ppm)	1.3	0	0	0.0	2022	0	Corrosion of household plumbing systems; Erosion of natural deposits
Lead - action level at consumer taps (ppb) Lowell Twp.	15	0	0	0 to 2	2022	0	Lead service lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits
Copper - action level at consumer taps Lowell Twp. Copper (ppm)	1.3	0	0	0.0	2022	0	Corrosion of household plumbing systems; Erosion of natural deposits

¹ Ninety (90) percent of the samples collected were at or below the level reported for our water.

