

2016 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:

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; 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;

and radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities. 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 2015 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, 2015. 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

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. 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>.

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.

| <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 | 16.0 | 2.0 | 16.0 | 2016 | No | By-product of drinking water disinfection |
| TTHMs [Total Trihalomethanes] (ppb) Lowell Twp. | NA | 80 | 9.8 | 1.0 | 9.8 | 2016 | No | By-product of drinking water disinfection |
| Total Haloacetic Acid (ppb) City of Lowell | NA | 60 | 2.0 | ND | 2.0 | 2016 | No | By-product of drinking water disinfection |
| Total Haloacetic Acid (ppb) Lowell Twp. | NA | 60 | <1.0 | ND | 1.0 | 2016 | No | By-product of drinking water disinfection |
| Chlorine (as Cl ₂) (ppm) City of Lowell | 4 | 4 | .465 | 0.26 | 0.64 | 2016 | No | Water additive used to control microbes |
| Chlorine (as Cl ₂) (ppm) Lowell Twp. | 4 | 4 | .421 | .21 | .58 | 2016 | No | |
| Inorganic Contaminants | | | | | | | | |
| Nitrate [measured as Nitrogen] (ppm) | 10 | 10 | 0.95 | 0.8 | 1.1 | 2016 | No | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| Fluoride (ppm) | 4 | 4 | 0.72 | 0.6 | 0.8 | 2016 | No | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories |
| Sodium (optional) (ppm) | | MPL | 13.5 | 12 | 15 | 2016 | No | Erosion of natural deposits; Leaching |
| Microbiological Contaminants | | | | | | | | |
| Total Coliform (positive samples/month) | 0 | 0 | 0 | NA | NA | 2016 | No | Naturally present in the environment |
| Fecal coliform/E. coli - in the distribution system (positive samples) | 0 | 0 | 0 | NA | NA | 2016 | 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 | 2.7 | NA | NA | 2013 | No | Erosion of natural deposits |

| <u>Contaminants</u> | <u>MCLG</u> | <u>AL</u> | <u>Your Water</u> | <u>Sample Date</u> | <u># Samples Exceeding AL</u> | <u>Exceeds AL</u> | <u>Typical Source</u> |
|--|-------------|-----------|-------------------|---------------------|-------------------------------|-------------------|--|
| Inorganic Contaminants | | | | | | | |
| Lead - action level at consumer taps (ppb) City of Lowell & Lowell Twp. | 0 | 15 | ND | 6/13 thru 6/14 2016 | 0 | No | Corrosion of household plumbing systems; Erosion of natural deposits |
| Copper - action level at consumer taps (ppb) City of Lowell & Lowell Twp. | 1300 | 1300 | ND | 6/13 thru 6-14 2016 | 0 | No | Corrosion of household plumbing systems; Erosion of natural deposits |

| 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 |

For more information please contact:

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