# 2023 Water Quality Report for City of Ithaca

**Water Supply Serial Number: MI0003460**

This report covers the drinking water quality for the City of Ithaca for the 2023 calendar year. This information is a snapshot of the quality of the water that we provided to you in 2023. Included are details about where your water comes from, what it contains, and how it compares to United States Environmental Protection Agency (U.S. EPA) and state standards.

Your water comes from four (4) groundwater wells, each over 180 feet deep. The State performed an assessment of our source water 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 on geologic sensitivity, well construction, water chemistry and contamination sources. The susceptibility of our source water is rated “very low” on all four wells.

There are no significant sources of contamination in our water supply. The city strives to protect our sources by annually sampling our source water, routine monthly bacteria sampling within our distribution system, and participating in the states Wellhead Protection Program.

If you would like to know more about this report, please contact: Jarred Waldron, Water-Sewer Superintendent, by phone at 989-875-3200 or email at water@ithacami.com.

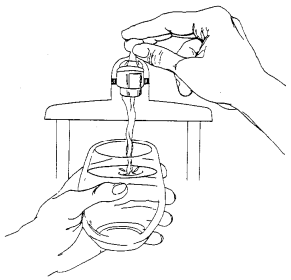
**Contaminants and their presence in water:** Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the U.S. EPA’s Safe Drinking Water Hotline (800-426-4791).

**Vulnerability of sub-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 systems 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. U.S. EPA/Center for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the U.S. EPA’s Safe Drinking Water Hotline (800-426-4791).

**Sources of drinking water:** The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. Our water comes from 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, 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 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 stormwater runoff, and septic systems.



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

## Water Quality Data

The table below lists all the drinking water contaminants that were detected during the 2023 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 through December 31, 2023. 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. All the data is representative of the water quality, but some are more than one year old.

### Terms and abbreviations used below:

- Maximum Contaminant Level Goal (MCLG): 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.
- Maximum Contaminant Level (MCL): 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.
- N/A: Not applicable
- ND: Not detectable at testing limit
- ppm: parts per million or milligrams per liter
- ppb: parts per billion or micrograms per liter
- ppt: parts per trillion or nanograms per liter
- pCi/l: picocuries per liter (a measure of radioactivity)
- Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

1. During the monitoring period of 1/1/2023 and 6/30/2023, we did not collect the required number of lead/copper samples from residents. This violation did not pose a threat to the quality of your drinking water. We have developed better sampling procedures to ensure this does not happen again.

2. During the monitoring period of 7/1/2023 and 12/31/2023, we collected 19 of 20 lead/copper samples resulting in a violation. This violation did not pose a threat to the quality of your drinking water. As a result, during the calendar year 2024 we are required to collect 40 lead/copper samples from residents as well as continuing with our lead/copper inspection and replacement program.

3. During the calendar year 2023 we inadvertently missed the 2$^{nd}$ quarter Radium sample for Well #6. We have since performed all the required samples and are now back into compliance.

| Regulated Contaminant | MCL, TT, or MRDL | MCLG or MRDLG | Level Detected | Range | Year Sampled | Violation Yes/No | Typical Source of Contaminant |
|---|---|---|---|---|---|---|---|
| Arsenic (ppb) | 10 | 0 | 3.6 ppb | 3.6 ppb | 2021 | NO | Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes |
| Barium (ppm) | 2 | 2 | 0.10 | 0.07-0.10 | 2019 | NO | Discharge of drilling wastes; Discharge of metal refineries; Erosion of natural deposits |
| Nitrate (ppm) | 10 | 10 | N/D | N/A | 2023 | NO | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits |
| Fluoride (ppm) | 4 | 4 | 0.56 | 0.55-0.71 | 2023 | NO | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories |
| Sodium[1] (ppm) | N/A | N/A | 28 | 22-58 | 2023 | NO | Erosion of natural deposits |
| Combined radium (pCi/L) | 5 | 0 | N/D-0.369 | 5 | 2023 | NO | Erosion of natural deposits |
| Total Coliform | TT | N/A | N/A | N/A | 2023 | NO | Naturally present in the environment |
| E. coli in the distribution system (positive samples) | See E. coli note[2] | 0 | 0 | N/A | 2023 | NO | Human and animal fecal waste |
| Fecal Indicator – E. coli at the source (positive samples) | TT | N/A | 0 | N/A | 2023 | NO | Human and animal fecal waste |

**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 | N/D | 0 | 2023 | NO | Discharge and waste from industrial facilities utilizing the Gen X chemical process |
| Perfluorobutane sulfonic acid (PFBS) (ppt) | 420 | N/A | N/D | 0 | 2023 | NO | Discharge and waste from industrial facilities; stain-resistant treatments |
| Perfluorohexane sulfonic acid (PFHxS) (ppt) | 51 | N/A | N/D | 0 | 2023 | NO | Firefighting foam; discharge and waste from industrial facilities |
| Perfluorohexanoic acid (PFHxA) (ppt) | 400,000 | N/A | N/D | 0 | 2023 | NO | Firefighting foam; discharge and waste from industrial facilities |
| Perfluorononanoic acid (PFNA) (ppt) | 6 | N/A | N/D | 0 | 2023 | NO | Discharge and waste from industrial facilities; breakdown of precursor compounds |
| Perfluorooctane sulfonic acid (PFOS) (ppt) | 16 | N/A | N/D | 0 | 2023 | NO | Firefighting foam; discharge from electroplating facilities; discharge and waste from industrial facilities |
| Perfluorooctanoic acid (PFOA) (ppt) | 8 | N/A | N/D | 0 | 2023 | NO | Discharge and waste from industrial facilities; stain-resistant treatments |
| Inorganic Contaminant Subject to Action Levels (AL) | Action Level | MCLG | Your Water[3] | Range of Results | Year Sampled | Number of Samples Above AL | Typical Source of Contaminant |
| Lead (ppb) | 15 | 0 | 0-4 ppb | 0-2 | 2023 | 0 | Lead service lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits |
| Copper (ppm) | 1.3 | 1.3 | 0.4 ppm | 0-1.5 | 2023 | 2 | Corrosion of household plumbing systems; Erosion of natural deposits |

[1] Monitoring Data for Regulated Contaminants

[2]

[3] Ninety (90) percent of the samples collected were at or below the level reported for our water

**Information about 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. The City of Ithaca 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 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 or at http://www.epa.gov/safewater/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.

**Information about Copper:** Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal physician.

Our water supply has 1135 total service lines. Of those, there are (2) lead service lines and 276 service lines of unknown material.

Monitoring and Reporting to the Department of Environment, Great Lakes, and Energy (EGLE) Requirements: The State of Michigan and the U.S. EPA require us to test our water on a regular basis to ensure its safety. All monitoring and reporting requirements were met for 2023.

We will update this report annually and will keep you informed of any problems that may occur throughout the year, as they happen. Copies are available at Ithaca City Hall Monday-Friday 8:00 AM-4:00 PM.

We invite public participation in decisions that affect drinking water quality. City Council meetings are held the first and third Tuesday of every month at 7:00 PM. For more information about your water, or the contents of this report, contact Water/Sewer Superintendent  Jarred Waldron at 989-875-3200. For more information about safe drinking water, visit the U.S. EPA at http://www.epa.gov/safewater.