

# Town of Oneida Water Quality Report for 2023

## Consumer Confidence Report

This report is to inform you about the excellent water and services that we deliver each day. Our constant goal is to provide you with a safe and dependable supply of drinking water that meets or exceeds all of EPA's health standards. We have conducted numerous tests for over 80 contaminants that may be in drinking water.

In 2018 Oneida purchased a new TOC (total organic carbon) and UV254 analyzer along with the addition of Carbon (PAC) in 2019 to the treatment process. In 2021-2022 a project was completed to install new underdrains and filter media on both filters and clarifiers. The improvements have helped to make Oneida a state-of-the-art water quality treatment facility and laboratory. As new challenges to drinking water safety emerge, we remain vigilant in meeting the goals of source water protection, water conservation, and community education while continuing to serve the needs of all our water users.



## Goals

Oneida has worked hard to ensure compliance; we are happy to report No violations for the past 6 years. We are currently working with NRCS on strategies to improve our source water to better deal with drought conditions and started construction in 2023 to expand the water treatment plant with EDA funds \$2.5 million dollars and 3.75 million dollars ARPA (TDEC) funds that include 2 new pre-basins totaling 4 MGD that will help improve the treatment process and meet the needs for future economic development in our area. Other improvements that helped reduce water loss by the addition of zone meters for leak detection and the replacement of 4,600 new water meters with the advanced leak detection acoustic listening (ALD). The new meters have helped to locate leaks that otherwise would go undetected, generally improving our overall water loss for the utility and customers. Other upcoming projects will include digital mapping, asset management program, ground penetration radar line replacement and upgrades to the ageing distribution system and booster pump stations.

## What is the source of my water?

Your water, which is treated surface water reservoirs comes from two sources, Baker Lake, and the Oneida City Park. Our goal is to protect our water from contaminants, and we are working with the State to determine the vulnerability of our water source to **potential** contamination. The Tennessee Department of Environment and Conservation (TDEC) has prepared a Source Water Assessment Program (SWAP) Report for the untreated water sources serving this water system. The SWAP Report assesses the susceptibility of untreated water sources to **potential** contamination. To ensure safe drinking water, all public water systems treat and routinely test their water. Water sources have been rated as reasonably susceptible, moderately susceptible, or slightly susceptible based on geologic factors and human activities in the vicinity of the water source. The City of Oneida sources rated as reasonably susceptible to potential contamination. An explanation of Tennessee's Source Water Assessment Program, the Source Water Assessment summaries, susceptibility scorings and the overall TDEC report to EPA can be viewed online at <https://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/source-water-assessment.html> or you may contact the Water System to obtain copies of specific assessments.

## Why are there contaminants in my 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 Safe Drinking Water Hotline (800-426-4791).

Este informe contiene información muy importante. Tradúscalo o hable con alguien que lo entienda bien.

## How can I get involved?

Our Water Board meets on the third Thursday of each month at 5:30 p.m. in courtroom located at City Hall, 19922 Alberta St. Please feel free to participate in these meetings.

## Is our water system meeting other rules that govern our operations?

The State and EPA require us to test and report on our water on a regular basis to ensure its safety. We have met all of these requirements. Results of unregulated contaminant analysis are available upon request. We want you to know that we pay attention to all the rules.

## Other Information

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:

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 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 stormwater 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 stormwater runoff, and septic systems. 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 and the Tennessee Department of Environment and Conservation prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health. The Oneida Water System's water treatment processes are designed to reduce any such substances to levels well below any health concern.

## Information for Consumers at Risk

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 not only their drinking water, but food preparation, personal hygiene, and precautions in handling infants and pets from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbiological contaminants are available from the safe water hot line (800 426-4791).



### Water System Security

Following the events of September 11, 2001, we realize that our customers are concerned about the security of their drinking water. We urge the public to report any suspicious activities at any utility facilities, including treatment plants, pumping stations, tanks, fire hydrants, etc. to 569-6311 or 569-4008.

### Pharmaceuticals In Drinking Water

Flushing unused or expired medicines can be harmful to your drinking water. Learn more about disposing of unused medicines. <https://tdeconline.tn.gov/rxtakeback/>

**Lead in Drinking Water** 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 Oneida Water System 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>

For more information about your drinking water, please call Ronnie Duncan or Stephen Owens at (423) 569-4008

### Water Quality Data

#### What does this chart mean?

- **MCLG** - Maximum Contaminant Level Goal, or 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** - Maximum Contaminant Level, or 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. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.
- **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 the 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.
- **AL** - Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.
- **Below Detection Level (BDL)** - laboratory analysis indicates that the contaminant is not present at a level that can be detected.
- **Non-Detects (ND)** - laboratory analysis indicates that the contaminant is not present.
- **Parts per million (ppm) or Milligrams per liter (mg/l)** – explained as a relation to time and money as one part per million corresponds to one minute in two years or a single penny in \$10,000.
- **Parts per billion (ppb) or Micrograms per liter** - explained as a relation to time and money as one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.
- **Million Fibers per Liter (MFL)** - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.
- **TT** - Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water.
- **RTCR**– Revised Total Coliform Rule. This rule went into effect on April 1, 2016, and replaces the MCL for total coliform with a Treatment Technique Trigger for a system assessment.
- **pCi/L (picocuries per liter)**.
- **NTU** - Nephelometric Turbidity Units - Turbidity is a measure of the clarity of the water. Turbidity in excess of 5 NTUs is just noticeable to the average person.

Unless otherwise noted, the data in this table is from sampling performed during the 2023 calendar year.

Contaminant Measurement)	(Unit	Violation Yes/No	Level Detected	Range of Detections	Date of Sample	Unit of Measurement	MCL G	MCL	Likely Source of Contamination
Total Coliform Bacteria (RTCR)		No	0		2023		0	TT Trigger	Naturally present in the environment
Finished Water Turbidity <sup>1</sup>		No	0.06	.04-.06	2023	NTU	N/A	TT	Soil Runoff
Lead <sup>2</sup>		No	90 <sup>th</sup> %= 1	1-9.4	2023	ppb	0	AL= 15	Corrosion of household plumbing systems; Erosion of natural deposits
Copper <sup>2</sup>		No	90 <sup>th</sup> %= .213	0.0538-0.946	2023	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits leaching from wood preservatives
Barium		No	.00517		2021	ppm	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion from natural deposits.

Contaminant (Unit Measurement)	Violation Yes/No	Level Detected	Range of Detections	Date of Sample	Unit of Measurement	MCL G	MCL	Likely Source of Contamination
Fluoride	No	Avg. .567	.511-.616	2023	ppm	4	4	Erosion of natural deposit: water additive which promotes strong teeth: discharge from fertilizer and aluminum factories.
Sodium	No	5.91		2023	ppm	N/A	N/A	Erosion of natural deposits; used in water treatment
TTHM <sup>3</sup> [Total trihalomethanes]	No	33.78 Avg.	10.10-33.20	Quarterly 2023	ppb	N/A	80	By-product of drinking water chlorination
Haloacetic Acid (HAA5) <sup>4</sup>	No	25.75 Avg.	10.90-34.60	Quarterly 2023	ppb	N/A	60	By-product of drinking water disinfection.
Chlorine	No	1.49 Ave	1.00-2.00	Monthly 2023	ppm	4	4	Water additive used to control microbes.
*Total Organic Carbon (ppm)	No	TT		Monthly 2023	ppm	TT*	N/A	Naturally present in the environment

\* Monthly ratio is the % TOC removal achieved to the % TOC removal required. The annual average must be 1.00 or greater for compliance. We have met all treatment technique requirements for Total Organic Carbon removal 100% of the time in 2023.

**\*Footnotes**

<sup>1</sup>100% of our samples were below the turbidity limit. Turbidity is a measurement of the cloudiness of water. We measure turbidity because it is a good indicator of the effectiveness of our filtration system.

<sup>2</sup>During the most recent round of Lead and Copper testing, 0 out of 30 households sampled contained concentrations exceeding the action level.

<sup>3</sup>TTHMs [Total Trihalomethanes]. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

<sup>4</sup>HAA5 [Haloacetic Acids]. Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.