

City of Oneida Water Quality Report for 2019

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 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 both 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 two years. We are currently working with NRCS on strategies to improve our source water to better deal with drought conditions and meet the needs for future economic development in our area. Other goals are to reduce water loss by adding zone meters for leak detection, updating APR meters and generally improving our water service to our customers.

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/article/wr-wq-source-water-assessment> 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 6:00 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, 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 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 under-gone 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 Drinking Water Hotline (800-426-4791).

Water System Security

Following the events of September 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 569-4008.

Pharmaceuticals In Drinking Water

Flushing unused or expired medicines can be harmful to your drinking water. Learn more about disposing of unused medicines

www.tn.gov/environment/sustainable-practices/unwanted-prescriptions.shtml

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/lead/protect-your-family%23water%23water>

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 or MRDL: 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 2019 calendar year

Contaminant (Unit Measurement)	Violation Yes/No	Level Detected	Range of Detections	Date of Sample	Unit of Measurement	MCLG	MCL	Likely Source of Contamination
Total Coliform Bacteria (RTCR)	No	0	0	2019		0	TT Trigger	Naturally present in the environment
Finished Water Turbidity ¹	No	0.09	.03-.09	2019	NTU	N/A	TT	Soil Runoff
Copper	No	90 th % = .20	BDL - .297	2017	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits leaching from wood preservatives
Fluoride	No	Avg. .065 Max. .86	.42-.86	2019	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.
Lead ²	No	90 th % = 1.25	BDL - 3.14	2017	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits.
Gross Alpha ⁵	No	BDL	.936	2016	pCi/l	0	15	Erosion of natural deposits
Combined radium ⁶	No	1.57	.508	2016	pCi/l	0	5	Erosion of natural deposits
Nitrate (as Nitrogen)	No	.130	.100	2019	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage erosion of natural deposits
Sodium	No	6.68		2019	ppm	N/A	N/A	Erosion of natural deposits; used in water treatment
TTHM ³ [Total trihalomethanes]	No	34.10 Avg.	8.13-51.60	Quarterly 2019	ppb	N/A	80	By-product of drinking water chlorination
Haloacetic Acid ⁴ (HAA5)	No	29.85 Avg.	6.37-30.50	Quarterly 2019	ppb	N/A	60	By-product of drinking water disinfection.

Cryptosporidium 7	No	1		2018	Oocyst	0	Footnote 7	Human or animal wastes
Chlorine	No	1.45 Ave	.80-2.00	Monthly 2019	ppm	4	4	Water additive used to control microbes.

We have met all treatment technique requirements for Total Organic Carbon removal 100% of the time.

¹100% 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.

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

³TTHMs [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.

⁴HAA5 [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.

⁵ Alpha emitters. Certain minerals are radioactive and may emit a form of radiation known as alpha radiation.

⁶Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer. Combined Radium 226/228. Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.

- 1. ⁷ Cryptosporidium is a microbial parasite which is found in surface water throughout the U.S. Although Cryptosporidium can be removed by filtration, the most commonly used filtration methods cannot guarantee 100 percent removal. Monitoring of our source water indicated the presence of cryptosporidium in 1 out of 12 samples tested. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals are able to overcome the disease within a few weeks. However, immuno-compromised people have more difficulty and are at greater risk of developing severe, life threatening illness. Immuno-compromised individuals are encouraged to consult their doctor regarding appropriate precautions to take to prevent infection. For more information on Cryptosporidium, contact the Safe Drinking Water Hotline (800-426-4791). Oneida was classified as Bin 1 system that requires No additional treatment for Cryptosporidium.*