

# 2022

## DRINKING WATER

# QUALITY REPORT



**Town of Seneca Falls**  
Public Water System  
ID#: NY490011

## INTRODUCTION

To comply with State regulations, the Town of Seneca Falls, will be annually issuing a report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Last year, your tap water met all State drinking water health standards. This report provides an overview of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to state standards.

If you have any questions about this report or concerning your drinking water, please contact James Varricchio, Chief Operator at 315-549-2508. We want you to be informed about your drinking water. If you want to learn more, please attend any of our Town Board meetings. The meetings are held on the first Tuesday of each month at 6:00 P.M. in the Town Meeting Room located at 130 Ovid St, Seneca Falls, New York.

## WHERE DOES OUR WATER COME FROM?

In general, 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 activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants.

In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Department, and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health. Our water source is surface water drawn from Cayuga Lake. During 2022, our system did not experience any restriction of our water source. The treatment plants water intake is located 1,850 feet from the western shore of Cayuga Lake and is in 25 feet of water.



## DESCRIPTION OF THE TREATMENT PROCESS

Raw water is drawn into the treatment plant through a 30" diameter intake line. As the raw water enters the treatment plant, a coagulant is added to assist in the settling of particles that may be in the water prior to filtration. The coagulant currently being used is PAC (poly-aluminum chloride). This chemical causes the particles to attract to each other and become dense enough to settle by gravity. The treatment plant also has the ability to add activated carbon for taste and odor control. After settling takes place, the water enters one of the five filters located in the main building of the plant. The water passes through a layer of anthracite coal, GAC (granular activated carbon) and several layers of sand to remove any remaining particles larger than 0.3 NTU<sup>1</sup>. After filtration, the water enters a 450,000-gallon clear well tank that is located beneath the main filter building. This filtered water then passes through an ultra-violet light unit for disinfection. Gaseous chlorine is then added to the filtered/treated water to establish a free chlorine residual. This free chlorine residual prevents any bacteria growth in the distribution system. The now potable water is then pumped through a 20" diameter transmission main to the distribution system to supply the users and maintain the level of the storage towers.

Information regarding the Cayuga Lake watershed can be found on the Internet at [www.cayugawatershed.org](http://www.cayugawatershed.org) or by contacting the Genesee/Finger Lakes Regional Planning Council, 1427 Monroe Avenue, Rochester, NY 14618, 585-442-3770. This website is an excellent source of information regarding the characterization of the entire watershed.

## FACTS AND FIGURES

The Seneca Falls Water Treatment plant is rated to produce 3,500,000 gallons of water per day, and our water system serves approximately 9,000 people with 4,450 service connections. This number includes residential as well as commercial and industrial users. The total potable water produced in 2022 was 387,968,000 total gallons for an average daily production of 1,062,926 gallons per day. Our highest single day of production was 1,771,000 gallons, which occurred on 09/16/2022. The cost for this amount of water to a Town customer is \$61.75/quarter. This amount covers 1,200 cubic feet or about 8976 gallons of water; water usage exceeding 1,200 gallons is charged 0.0468 ¢ per cubic foot.



In the Town of Fayette, Cayuga Lake Water District #3, the Town supplied 13,275,470 gallons of water (1,774,795 cu Ft) to its customers during 2022 at a rate of 3.00/1000 gallons. ALL customers of this district should contact the Town of Fayette at 315-585-6282 regarding any billing and/or service questions. The Town of Seneca Falls billed and supplied Fayette Water District #7 customers for 4,937,697 gallons (660,120 cu Ft).

## **ARE THERE CONTAMINANTS IN OUR DRINKING WATER?**

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, E. Coli, turbidity, chlorine, phosphorus, alkalinity, total organic carbon, 21 inorganic compounds, nitrate, 25 volatile organic compounds, total trihalomethanes, 52 synthetic organic compounds, PFOA/PFOS, 1,4 dioxane, microcystin (blue green algae) and metals. The table included in this report depicts which compounds were detected in your drinking water. The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data though representative, is more than one year old. Anyone interested in copies of the individual laboratory reports can contact the chief operator James Varricchio at 315-549-2508.

It should be noted that all drinking water, including bottled drinking water, might be reasonably 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 EPA's Safe Drinking Water Hotline 1-800-426-4791 or the Seneca County Health Department at 315-539-1945.





## TABLE OF DETECTED CONTAMINANTS

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg./Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
<b>Turbidity (Distribution System)</b> * See Note 3	NO	5/10/22 (Highest)	0.33 Avg 24.2 Max 0.06-24.2 Range	NTU	N/A	TT= < 5 NTU	Soil Runoff.
<b>Turbidity (Leaving Treatment Plant)</b> *See Note 3	NO	9/23/22 (Highest)	0.08 Avg 0.64 Max 0.01-0.64 Range	NTU	N/A	1.0	Soil Runoff.
<b>Chlorine</b>	NO	10/03/22 (Highest)	1.68 Avg 2.9 Max 1.0-2.9 Range	mg/L	N/A	4.0	Additive to drinking water to control microbes.
<b>Nitrate</b>	NO	9/22/22	0.56	mg/L	10	10	Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural.
<b>Barium</b>	NO	9/22/22	0.026	mg/L	2	2	Naturally occurring.
<b>Aluminum</b>	NO	9/26/19	0.87	mg/L			
<b>Sodium</b>	NO	9/22/22	34	mg/L	(see Health Effects)	N/A	Naturally occurring; Road salt; Water softeners; Animal waste.
<b>Total Trihalomethanes Disinfection By-Products</b>	NO	1 sample per quarter @ 2 sites	61 Avg 47-91 Range @ Site #1	µg/L	80	N/A	By-products of drinking water chlorination needed to kill harmful organisms.
<b>(TTHM's –chloroform, bromodichloromethan, dibromochloromethan, and bromofrom)</b>			49 Avg 31-84 Range @ Site #2				TTHM's are formed when source water contains large amounts of organic matter.
<b>Haloacetic Acid Disinfection By-Products</b>	NO	1 sample per quarter @ 2 sites	18 Avg 14-21 Range @ Site #1  16 Avg 10-22 Range @ Site #2	g/L	60	N/A	By-products of drinking water chlorination needed to kill harmful organisms.
<b>Copper</b> *See Note 1	NO	12/16/20	0.035-90% 0.001 – 0.36 (range)	mg/ L	1.3	AL = 1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
<b>Lead</b> (See Note 2)	NO	12/15/20	0.0012-90% ND – 0.0024 (range) <sup>2</sup>	mg/ L	0	AL = 0.015	Corrosion of household plumbing systems; Erosion of natural deposits.
<b>Fluoride</b>	NO	9/22/22	0.11	mg/ L	N/A	2.23 = MCL	Naturally occurring.
<b>Nickel</b>	NO	9/22/22	0.0014	mg/ L	N/A	N/A	Discharge from stainless steel factories.
<b>Total Organic Carbon</b>	NO	6/02/22 (Highest)	1.68 Avg 1.9 Max 1.5-1.9 Range	mg/ L	N/A	TT	Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems.
<b>Microcystin From HABs (In Raw Water)</b>	NO	9/15/22 (Highest)	1.03 Avg 2.60 Max 0.30-2.60 Range	Ug/L	0	N/A	Harmful algae blooms.

## Notes:

1 – The level presented represents the 90<sup>th</sup> percentile of the 40 sites tested. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90<sup>th</sup> percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, 40 samples were collected at your water system and the 90<sup>th</sup> percentile value was the 36<sup>th</sup> value (0.0035 mg/l). The action level for copper was not exceeded at any of the sites tested.

2 – The level presented represents the 90<sup>th</sup> percentile of the 40 samples collected. The action level for lead was not exceeded at any of the sites tested. The 90<sup>th</sup> percentile value for lead is 0.0012 mg/L.

3 – Turbidity is a measure of the cloudiness of the water. We test it because it is a good indicator of the effectiveness of our filtration system. Our highest single turbidity measurement for the year occurred on 9/23/22 (0.64 NTU). State regulations require that turbidity must always be below 5 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 0.5 NTU.

## Definitions:

**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.

**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.

**Action Level (AL):** The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.

**Non-Detects (ND):** Laboratory analysis indicates that the constituent is not present.

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

**Nephelometric Turbidity Unit (NTU):** A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**Milligrams per liter (mg/l):** Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).

**Micrograms per liter (µg/l):** Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

**Pico curies per liter (pCi/L):** A measure of the radioactivity in water.

**Maximum Residual Disinfectant Level (MRDL):** 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.

**Maximum Residual Disinfectant Level Goal (MRDLG):** 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 contamination.



## WHAT DOES THIS INFORMATION MEAN?

Although some contaminants were detected none reached the regulatory limit, therefore no violations are present. We will continue to monitor contaminants as required by the state, and report any new information on the 2023 water quality report next year.

## SANITARY CODE VIOLATIONS

A sanitary survey was completed by the Seneca County health department in September of 2022. The system was found in compliance with sanitary code, and no violations were reported.

## IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. Between January 1<sup>st</sup>, 2021 and June 30<sup>th</sup>, 2022, we did not complete the required testing for synthetic organic contaminants (SOCs) and therefore cannot be sure of the quality of your drinking water during that time. SOC samples were collected on September 22, 2022 and all results were satisfactory.

## LEAD

If present, elevated levels of lead can cause serious health problems, especially for pregnant women, infants, and young children. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. The Town of Seneca Falls 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 (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

## HEALTH EFFECTS OF SODIUM IN WATER

Water containing more than 20 mg/L of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/L of sodium should not be used for drinking by people on moderately restricted sodium diets.

## **INFORMATION ON HARMFUL ALGAW BLOOMS (BLUE GREEN ALGAE)**

The Town of Seneca Falls routinely monitors lake conditions to spot harmful algae blooms by our intake lines. During the HAB (Harmful Algae Bloom) season, we frequently sample for microcystin in our raw and finished water. Levels of the toxin have been detected in the raw untreated water entering the facility, but our treatment process has been successful in removing all of the toxin to ensure your drinking water remains unaffected.

## **INFORMATION ON RADON**

Radon is a naturally occurring radioactive gas found in soil and outdoor air that may also be found in drinking water and indoor air. Some people exposed to elevated radon levels over many years in drinking water may have an increased risk of getting cancer. The main risk is lung cancer from radon entering indoor air from soil under homes. For additional information call your state radon program (1-800-458-1158) or call EPA's Radon Hotline (1-800-SOS-Radon).

## **DO I NEED TO TAKE SPECIAL PRECAUTIONS?**

Although our drinking water met or exceeded state and federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens 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 from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbial pathogens are available from the Safe Drinking Water Hotline (1-800-426-4791).

## **WHY SAVE WATER AND HOW TO AVOID WASTING IT?**

Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water:

- ◆ Saving water saves energy and some of the costs associated with both of these necessities of life;
- ◆ Saving water reduces the cost of energy required to pump water and the need to construct costly new, pumping systems and water towers; and
- ◆ Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential firefighting needs are met.





You can play a role in conserving water by becoming conscious of the amount of water your household is using, and by looking for ways to use less whenever you can. It is not hard to conserve water.

#### Conservation tips include:

- ◆ Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So, get a run for your money and load it to capacity.
- ◆ Turn off the tap when brushing your teeth.
- ◆ Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it up, and you can save almost 6,000 gallons per year.
- ◆ Check your toilets for leaks by putting a few drops of food coloring in the tank, watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you save more than 30,000 gallons a year.
- ◆ Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances, then check the meter after 15 minutes, if it moved, you have a leak.

## SYSTEM IMPROVEMENTS

During 2022, the following work was completed:

#### Distribution System:

- 112 New water meters were installed.
- Our staff have been working to identify, and replace hydrants around the system that are past their useful lifespan. Many date back to the 1900's.
- Radio reading equipment installed/updated at multiple locations. With this equipment water meters can be read remotely without physically going on the property. This can also provide real time data if a leak occurs at the residence.
- Staff have been identifying any possible lead service lines in our water system, and creating an inventory of them per new guidelines.
- Multiple water main leak repairs. Our system is aging, and water main leaks do happen. They are repaired quickly by our staff whenever they occur.

#### Treatment Plant:

- Moving forward with the installation of a new CO<sub>2</sub> injection system at the treatment plant. Currently we have no means of controlling the raw water pH that comes out of the lake. This system will now enable us to lower the pH of the raw water to better utilize chemicals, and provide a better product to our customers.
- Along with the Co<sub>2</sub> Injection system we are working on a caustic soda feed system. This system will allow us to increase the finish water pH before it enters the distribution system. Being able to control

finish water pH will help to keep the water from corroding the pipes, and helps with corrosion control.

- Installation of a new concrete spill containment pad. This makes sure a chemical spill is properly contained if an incident happens while unloading liquid chemicals from a delivery truck into our treatment plant.
- To keep the property secure, we are currently in the process of replacing sections of fencing that need repair. The security and camera systems were also upgraded.
- Both UV Reactors have been rebuilt, and inspected by our staff for proper operation. These are crucial to our treatment process as UV light is our main source of disinfection.

## IN CLOSING

Thank you for allowing us to continue to provide your family and/or business with quality drinking water this year. We ask that all our customers help us protect our water sources, which are the heart of our community. Look forward to seeing our staff working in the street during the 2023 construction season, as many projects are currently planned. Again, if you have any questions about our treatment processes or water sample results please feel free to contact the Chief Operator James Varricchio at 315-257-7104. We look forward to serving our community for another year!

## Town of Seneca Falls

### Water Department Staff – 2022

Superintendent	Joseph Tullo
Chief Operator	James Varricchio
Plant Operator	Brian DeVay
Plant Operator	Mason Hawker
Plant Operator	Edward Thurston
Plant Operator	Joshua Sahler
Maintainer	Fred Peterman
Maintainer	Joseph McLane
Maintainer	Timothy Pagano
Maintainer	Lewis Archer
Senior Account Clerk	Sarah Wright

