

# *Annual Drinking Water Quality Report for 2021*

*Village of Elbridge  
210 W. Main St.  
Elbridge, NY 13060  
(Public Water Supply ID# NY3304312)*

## **INTRODUCTION**

To comply with State regulations, **the Village of Elbridge**, 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. 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 **Brad Milton, Our Water systems Operator, (315) 689-3404**. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled village board meetings. The meetings are held on the **First Monday of each month at the Village Hall located at 210 West Main Street, Elbridge, NY at 7:00 PM.**

## **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 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's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water system serves a population of 1952 residents through 660 service connections. Our water source is Skaneateles Lake. The City of Syracuse is responsible for the treatment of our water. This treatment consists of chlorination for disinfection purposes and fluoridation for the prevention of tooth decay. The water then flows by gravity to the City of Syracuse distribution system and is then delivered to our Ultraviolet Disinfection Plant where the water passes through our UV disinfection unit prior to delivery to the Village of Elbridge.

## **Source Water Assessment**

The NYSDOH has evaluated the Village of Elbridge source water susceptibility to contamination under the Source Water Assessment Program (SWAP), and their findings are summarized here. It is important to stress that these assessments were created using available information and only estimate the potential for source water contamination. Elevated susceptibility ratings do not mean that source water contamination has or will occur for the Village of Elbridge. The City of Syracuse provides treatment and regular monitoring to ensure the water delivered to the Village of Elbridge meets all applicable standards. The assessment found a moderate susceptibility to contamination for the Skaneateles Lake source of drinking water. The amount of pasture in the assessment area results in a high potential for protozoa contamination. No permitted discharges are found in the assessment area. There are no likely contamination threats associated with the other discrete contaminant sources, even though some facilities were found in low densities.

## ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, The **City of Syracuse** tests your drinking water for 22 inorganic compounds, nitrates, nitrites, 53 volatile organic compounds, and 40 synthetic organic compounds and pH. In addition to these tests the **Village of Elbridge** tests for coliform bacteria monthly, turbidity, lead and copper, and chlorine residual on a weekly basis. The table presented below 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, are more than one year old. All test results are available in the Water Department office, if you wish to review them.

It should be noted that all drinking water, including bottled drinking water, may 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 (800-426-4791)** or the **Onondaga County Health Department, Division of Environmental Health, 421 Montgomery St., John H. Mulroy Civic Center, 12<sup>th</sup> floor, Syracuse, NY 13202, (315) 435-6600.**

<b>Table of Detected Contaminants</b>							
<b>Contaminant</b>	<b>Violation Yes/No</b>	<b>Date of Sample</b>	<b>Level Detected (Average/Ma x) (Range)</b>	<b>Unit Measurement</b>	<b>MCL G</b>	<b>Regulatory Limit (MCL, TT or AL)</b>	<b>Likely Source of Contamination</b>
<b>Village of Elbridge - Distribution System</b>							
Turbidity (1)	No	Weekly	0.44 (0.19-1.1)	NTU	N/A	TT = 5.0 NTU for systems that don't filter	Soil run off
Chlorine Residual	No	Weekly	0.53 (0.19 – 1.1)	mg/L	N/A (MRDL G)	4 (MRDL)	By-product of drinking water chlorination.
Copper (2)	No	Aug 11 2020	0.67 (0.20-0.765)	mg/L	1.3	AL=1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Lead (3)	No	Aug 11 2020	5.4 (ND-6.7)	ug/L	0	AL= 15	Corrosion of household plumbing systems; Erosion of natural deposits.
<b><u>Disinfection By-products*</u></b> Total (Trihalomethanes (TTHM))	No	Aug 10 2021	38.9	ug/L	N/A	80	By-Product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
Haloacetic Acid (HAA5)	No	Aug 10 2021	11	ug/L	N/A	60	By-product of drinking water chlorination needed to kill harmful organisms.
<b>City of Syracuse – Entry Point</b>							
Turbidity (4)	Yes	Every 4 hours	10.73 (5)	NTU	N/A	TT = 5.0 NTU for systems that don't filter	Soil run off

City of Syracuse – Entry Point							
Chlorine Residual	No	Daily	1.27 (0.46-2.69)	mg/L	N/A (MRDL G)	4 (MRDL)	By-product of drinking water chlorination.
<b><u>Inorganics</u></b> Barium	No	5/12/21	0.022	mg/L	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chloride	No	5/12/21	22.00	mg/L	N/A	250	Naturally occurring or indicative of road salt contamination.
Fluoride	No	Daily	0.72 (0.11-1.21)	mg/L	NA	2.2	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.
Manganese	No	5/25/21	<0.5	ug/L	N/A	300	Naturally occurring; Indicative of landfill contamination.
Nitrate as N	No	5/12/21	0.37	mg/L	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Odor	No	5/12/21	2	Units	N/A	3	Organic or inorganic pollutants originating from municipal and industrial waste discharges; natural sources.
Sodium (6)	No	5/12/21	11.0	mg/L	N/A	N/A	Naturally occurring; Road salt; Water softeners; Animal waste.
Sulfate	No	5/12/21	11.6	mg/L	N/A	250	Naturally occurring

**\*Disinfection by-products;** During disinfection, certain by-products form as a result of chlorine reacting with naturally occurring organic matter. The disinfection process is carefully monitored so that disinfection is effective, while levels of disinfection by-products are kept low. Trihalomethanes (TTHM) and Haloacetic Acids (HAA5) are classes of chemicals that we are required to monitor for in our distribution system.

**Notes:**

1 - The Village of Elbridge measures the turbidity in its distribution system weekly. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants. Our highest single turbidity measurement for the year occurred on December 11, 2020 (0.84 NTU). 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.

2 - The level presented represents the 90<sup>th</sup> percentile of the 10 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, 10 samples were collected at your water system and the 90<sup>th</sup> percentile value was 0.67 mg/l. The action level for copper was not exceeded at any of the sites tested.

3 - The level presented represents the 90<sup>th</sup> percentile of the 10 samples collected. The action level for lead was not exceeded at any of the 10 sites tested.

4 - The City of Syracuse measures the turbidity in its raw water every 4 hours. Turbidity has no health effects. However, Turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites, including Giardia Lamblia and Cryptosporidium. Please pay special attention to the additional statement in this document regarding Cryptosporidium.

5 - This value was the highest turbidity result detected during the year.

6 - There is no MCL established for Sodium, however, water containing more than the 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.

**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.

**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.

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

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

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

**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 (ug/L):** Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

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

**HAA5 ( Haloacetic Acids)** – the combined concentration of the following five contaminants; Dibromo-, Dichloro-, Monobromo-, Monochloro-, and Trichloro-, acetic acids.

**TTHM (Total Trihalomethanes)** – the combined concentration of the following four contaminants; Bromodichloromethane, Bromoform, Chloroform, and Dibromochloromethane.

**WHAT DOES THIS INFORMATION MEAN?**

The table shows that our system uncovered some problems this year. On November 12, 2021, due to sustained southerly winds, the turbidity levels entering the City of Syracuse's intake exceeded the maximum allowable standard of 5 Nephelometric Turbidity Units (NTU). Turbidity levels reached 10.73 NTU and triggered a Treatment Technique/MCL violation (1 day exceedance). Notification of this event was made to the public and to the Onondaga County Health Department.

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. Please pay special attention to the additional statements in this document regarding Cryptosporidium.

We have learned through our testing that some other contaminants have been detected; however, these contaminants were detected below the level allowed by the State. For more information please contact the Village of Elbridge Water Department at 315-689-3404.

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

During 2021, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

**INFORMATION ON CRYPTOSPORIDIUM AND GIARDIA**

New York State law requires water suppliers to notify their customers about the risks of Cryptosporidium and Giardia. These pathogens are of concern because they are found in surface water and groundwater under the influence of surface water throughout the United States. Filtration and disinfection are the best methods for use against them, but 100% removal or inactivation cannot be guaranteed. Cryptosporidiosis and Giardiasis are intestinal illnesses caused by these microscopic parasites. Symptoms of infection include nausea, diarrhea, and cramps. Most healthy people can overcome the disease within a few weeks.

The City of Syracuse Water Dept. took a total of 24 Cryptosporidium and Giardia samples in 2021 representing water originating from Skaneateles Lake. Two Raw water samples (one from each intake) were sampled monthly. No Cryptosporidium or Giardia were detected in any of the City of Syracuse's Raw water samples.

### **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 (800-426-4791)**.*

### **INFORMATION ON FLUORIDE ADDITION**

Our system is one of the many drinking water systems in New York State that provides drinking water with a controlled, low level of fluoride for consumer dental health protection. Fluoride is added to your water by the City of Syracuse before it is delivered to us. According to the United States Centers for Disease Control, fluoride is very effective in preventing cavities when present in drinking water at an optimal range from 0.8 to 1.2 mg/l (parts per million). To ensure that the fluoride supplement in your water provides optimal dental protection, the State Department of Health requires that the City of Syracuse monitor fluoride levels on a daily basis to make sure fluoride is maintained at a target level of 0.7 mg/l. During 2021 monitoring showed that fluoride levels in your water were within 0.1 mg/L of the target level for 68 % of the time. None of the monitoring results showed fluoride at levels that approach the 2.2 mg/L MCL for fluoride.

### **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 fire fighting 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.

### **CLOSING**

Thank you for allowing us to continue to provide your family with quality drinking water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements. We ask that all our customers help us protect our water sources, which are the heart of our community. **Please call our office if you have questions at (315) 689-3404.**