

***Annual Drinking Water Quality Report for 2019  
Village and Town of Avon Public Water Supply  
74 Genesee St. Avon, N.Y. 14414  
(Village of Avon Public Water Supply ID# 2501012)  
(Town of Avon Public Water Supply ID# 2501016)  
(South Avon Water District ID# 2530017)  
(Caledonia Water District #3 ID# 2500701)***

## **INTRODUCTION**

To comply with State regulations, the Village and Town of Avon water supply systems and their purchase systems listed above, 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 Kirk Vanderbilt, Lead Water Operator for the Village of Avon, at 585-226-8118. 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 the first and third Monday of each month at the Avon Village Hall.

## **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 and the FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health. Our water source for the Village and Town of Avon, and their purchase systems, is Conesus Lake. The water is pretreated with chlorine (to control zebra mussels) and then pumped from our pumping facility in Lakeville. A coagulant is added to remove organic material. The water is then filtered, chlorinated, fluoridated and corrosion control treatment is added prior to distribution. Our distribution system includes a two million gallon tank. The Town of Avon distribution system includes two water storage tanks. During 2019, our system did not experience any restriction of our water source.

The New York State Department of Health (NYSDOH) has evaluated this Public Water System's (PWS) susceptibility to contamination under the Source Water Assessment Program (SWAP), and their findings are summarized in the paragraph below. 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 this PWS. This PWS provides treatment and regular monitoring to ensure the water delivered to consumers meets all applicable standards.

The NYSDOH has found a moderate susceptibility to contamination for Conesus Lake. The amount of row crops within the assessment area results in a medium susceptibility to pesticides. There are no noteworthy contamination threats associated with other discrete contaminant sources. While lakes are not generally considered to have a high natural sensitivity to phosphorus in SWAP, this lake already has algae problems. Therefore, additional phosphorus contribution would likely result in further water quality degradation.

At the end of 2003, an Intermunicipal Agreement was signed creating the Conesus Lake Watershed Council. The Council consists of officials from all towns within the watershed, Livingston County, and the Villages of Avon and Geneseo. The purpose of the Council is to implement the Conesus Lake Watershed Management Plan, a comprehensive plan to protect and improve the Lake. The Watershed Manager and the Watershed Inspector work to move forward on the 34 recommendations put forth in the Conesus Lake Watershed Management Plan (CLWMP). You may contact the Livingston County Planning Dept. at 243-7550 (or visit the Livingston County Planning Department's website (<https://www.livingstoncounty.us/112/Watershed-Council>) to obtain copies of the *Conesus Lake Watershed Characterization Report* or the *Watershed Management Plan*.

## **FACTS AND FIGURES**

The Village of Avon supplies water to approximately 1200 customers within the Village with a total population of approximately 3,000. The system also supplies water to the Town of Avon, which has approximately 653 service connections serving a population of approximately 3,000, the South Avon Water District which has 24 service connections serving approximately 60, and the Caledonia District #3 has 12 service connections serving approximately 160. The Total water produced in 2019 was 270 million gallons. The average daily production was 740,000 gallons, with a peak one-day production of 1.02 million gallons, which occurred on July 30th. The amount of water that was billed to customers or otherwise accounted for was 233 million gallons. This leaves 37 million gallons (13.7% of the total) unaccounted for. This unaccounted water was due to flushing water mains, construction and maintenance, fighting fires, leakage, faulty meters, unmetered water, etc. Village of Avon customers were charged a \$66.00 minimum for the first 800 cubic feet and \$4.09 for each 100 cubic feet after the minimum. The Town of Avon water customers were charged a \$50.00 minimum on the first 8,000 gallons used and \$6.08 for each 1,000 gallons used after the minimum.

**For information regarding the South Avon Water District or the Caledonia #3 Water District, please contact the Livingston County Water and Sewer Authority (LCWSA) at 346-3523.**

## **SECURITY**

In cooperation with State and Federal Agencies, the Village of Avon is making a concerted effort to insure the safety and security of our water system. We consider our water customers and neighbors to be an important part of that effort. We encourage people to take note of problems with their water and/or any suspicious activity within the water system and report those problems immediately to the appropriate authorities, i.e., 911 or the Village Office.

## **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 bacteria, turbidity, inorganic compounds, nitrate, lead and copper, radionuclides, volatile organic compounds, total trihalomethanes, haloacetic acids, and synthetic organic compounds. In 2019 the Village of Avon also tested for asbestos in the distribution system and microcystin (a blue-green algal toxin) in the raw and treated water supply. 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, therefore some data may be more than a year old. 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 (800-426-4791) or the Livingston County Health Department at 585-243-7280.

### **Table of Detected Contaminants**

Contaminant	Violation Yes/No	Date of Sample	Level Detected	Unit of Measure	MCLG	Regulatory Limit MCL, AL MRDL	Likely Source of Contaminant
<b>Turbidity</b>							
Turbidity <sup>1</sup>	No	6/Day	.08	NTU	N/A	1 NTU	Soil Runoff
Turbidity <sup>1</sup>	No	Daily	100% below 0.5 NTU	NTU	N/A	95% of samples <0.3	Soil Runoff
Distribution Turbidity <sup>1</sup>	No	5/Week	0.27 average Range .13-.64	NTU	N/A	5 NTU	Pipe Disturbance
<b>Chlorine Residuals Measured in Distribution</b>							
Chlorine Residual Avon Village	No	5/Week	Range (0.08-0.56 0.69)	mg/l	N/A	MRDL=4.0	Water additive used to control microbes
Chlorine Residual Avon Town	No	Monthly	Range (0.16-0.90)	mg/l	N/A	MRDL=4.0	Water additive used to control microbes
Chlorine Residual South Avon	No	Monthly	Range (0.07-0.34)	mg/l	N/A	MRDL=4.0	Water additive used to control microbes
Chlorine Residual Cal. Dist. #3	No	Monthly	Range (0.06-0.41)	mg/l	N/A	MRDL=4.0	Water additive used to control microbes
<b>Inorganic Contaminants</b>							
Chloride	No	12/17/19	62	mg/L	N/A	250	Naturally occurring or indicative of road salt contamination.
Fluoride	No	07/01/19	0.60	mg/L	N/A	MCL=2.2	Erosion of natural deposits. Water additive that promotes strong teeth. Discharge from fertilizer and aluminum factories.
	No	Daily Monitoring	Avg. -.77 Range (0.6 - 0.9)	mg/L	N/A		
Barium	No	07/01/19	0.0274	mg/L	2	2	Erosion of Natural deposits.
Nickel	No	07/01/19	0.0052	mg/L	N/A	N/A	Nickel enters groundwater and surface water by dissolution of rocks and soils, from atmospheric fallout, biological decays and waste disposal.
Nitrate	No	12/17/19	0.24	mg/L	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Sodium <sup>4</sup>	No	12/17/19	34	mg/L	See Health Effects <sup>4</sup>	N/A	Naturally occurring; Road Salt; Water Softeners; Animal Waste.
<b>Lead and Copper</b>							
Copper <sup>2</sup>	No	9/26/17	0.58 <sup>2</sup> 0.07 – 0.67	mg/L	0	AL = 1.3	Corrosion of household plumbing.
Lead <sup>3</sup>	No	9/26/17	4.7 <sup>3</sup> ND – 55	ug/L	0	AL = 15	Corrosion of household plumbing.

Contaminant	Violation Yes/No	Date of Sample	Level Detected	Unit of Measure	MCLG	Regulatory Limit MCL, AL MRDL	Likely Source of Contaminant
<b>Stage 2 Disinfection By-Products</b>							

Total Tri-Halomethanes (TTHM)	No	every 90 days	<b>Avon Village</b> Highest Average 70.75 <sup>5</sup> range (54–108)	ug/L	N/A	80 ug/L average	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains organic matter.
	No	every 90 days	<b>Avon Town</b> Highest Average 67.75 <sup>5</sup> range (51 - 88)				
	Yes	every 90 days	<b>South Avon</b> Highest Average 83 <sup>5</sup> range (66 –105)				
	Yes	every 90 days	<b>Caledonia #3</b> Highest Average 82.75 <sup>5</sup> Range (60- 108)				
Halo-Acetic Acids (HAA5)	No	every 90 days	<b>Avon Village</b> Highest Average 31.5 <sup>5</sup> range (21 – 43)	ug/L	N/A	60 ug/L average	By-product of drinking water chlorination
	No	every 90 days	<b>Avon Town</b> Highest Average 8.35 <sup>5</sup> range (3.2 - 12)				
	No	every 90 days	<b>South Avon</b> Highest Average 23 <sup>5</sup> range (3.2 - 27)				
	No	every 90 days	<b>Caledonia #3</b> Highest Average 29.5 <sup>5</sup> range (24 -32)				

**Notes:**

1 – 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 (0.184 NTU) for the year occurred on 06/29/19. State regulations require that turbidity must always be below 1.0 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 0.3 NTU. Five distribution turbidity samples are required at five different locations each week. Turbidity values in the distribution system may not exceed 5 NTU.

2 – The level presented represents the 90<sup>th</sup> percentile of the 20 sites tested for lead and copper. 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. The action level for copper was not exceeded at any of the sites tested.

3 – Similar to (2) above, this level presented represents the 90<sup>th</sup> percentile of the 20 samples collected.

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

5 – This represents the highest locational running annual quarterly average calculated from data collected. Compliance is based on annual running average. The LCWSA South Avon system exceeded the TTHM MCL in the 3<sup>rd</sup> and 4<sup>th</sup> quarters, and the LCWSA Caledonia District #3 exceeded the TTHM MCL in the 4<sup>th</sup> Quarter. Health Effects of elevated Disinfection Byproducts: 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 system and may have an increased risk of getting cancer.

**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.

**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.

**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).

**Haloacetic acids (five) (HAA5)** means the sum of the concentrations in milligrams per liter of five specific haloacetic acid compounds.

**Total Trihalomethane (TTHM)** means the sum of the concentration of trichloromethane (chloroform), dibromochloromethane, bromodichloromethane and tribromomethane (bromoform).

## **WHAT DOES THIS INFORMATION MEAN?**

As you can see by the table, the Village of Avon and the Town of Avon public water supplies had no MCL violations in 2019. 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. You can obtain copies of the original test results by stopping at the Village Office and requesting them.

The LCWSA South Avon District and Caledonia District #3 public water supplies were in violation of the Stage 2 Disinfection Byproducts Rule. The South Avon District exceeded the MCL for TTHM in the 3<sup>rd</sup> and 4<sup>th</sup> quarters of 2019. Caledonia District #3 exceeded the MCL for TTHM in the 4<sup>th</sup> quarter of 2019. Both incidents were described previously in this report. See footnote 5 above. The LCWSA will continue to address disinfection byproducts in the distribution system. More aggressive and frequent flushing, additional sampling, and adjusting the chlorine residuals at chlorine booster stations are methods used to lower TTHM's.

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

During 2019, The Village and Town of Avon public water supplies were in compliance with applicable State drinking water operating, monitoring and reporting requirements.

The LCWSA South Avon Water District collected the first quarter disinfection byproducts sample set (TTHM and HAA5) at an unapproved location. Samples must be collected from a point in distribution that represents the maximum residence time. Unapproved sample locations may not be representative of the oldest water (and highest contaminant level) in the distribution system. This sample was not used for compliance.

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

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 FLUORIDATION**

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. According to the United States Centers for Disease Control, fluoride is very effective in preventing cavities when present in drinking water at a properly controlled level. To ensure that the fluoride supplement in your water provides optimal dental protection, we monitor fluoride levels on a daily basis to make sure fluoride is maintained at a target level of 0.7 mg/l. During 2019,

monitoring showed that fluoride levels in your water were within 0.1 mg/l of the target level for 99% of the time. None of the monitoring results showed fluoride at levels that approach the 2.2 mg/l MCL for fluoride.

### **Information on Lead in Drinking Water**

If present, elevated levels of lead can cause serious health problems, especially for pregnant women 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 Village of Avon 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>.

## **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 wells, 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**

The Village of Avon made improvements to both the Filtration Plant and the distribution system during the year. Some highlights include:

- Continued engineering studies for long-term and cooperative system improvements for Town and Village
- Replacement of 700ft. of aging water main at driving park
- Continued progress in the upgrade of meter-reading technology
- First stages of plans for major capital improvement at Lake Pump House
- Replacement of motor on main pumping equipment at Pump House
- Replacement of granular activated carbon at Filtration Plant

## **CLOSING**

We at the Village of Avon are doing our very best to provide high quality water to our customers, and are happy to answer any questions. If you have any questions or concerns regarding the quality or treatment of your water, feel free to call us at 226-8118. Questions regarding the Town of Avon Water District should go to 226-2425, and Questions about the South Avon Water District or the Caledonia Water District #3 should go to the LCWSA at 346-3523.