

Annual Drinking Water Quality Report for 2021
Athens Village Water System
2 First Street, Athens, NY 12015
(Public Water Supply ID# NY1900024)

INTRODUCTION

To comply with State regulations, Village of Athens Water, 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, we conducted tests for over 80 contaminants. We detected one of those contaminants, and only found one of those contaminants at a level higher than the State allows. As we told you at the time, our water temporarily exceeded a drinking water standard and we rectified the problem by altering the chemical injection and increased distribution system flushing. 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. We want our valued customers to be informed about their water service. If you want to learn more, please attend any of our regularly scheduled Village Board meetings. They are held on the 2nd and 4th Wednesday of the month at the Village Hall at #2 First Street Athens, NY 12015, 2787. If you have any questions about this report or concerning your drinking water, please contact Joseph Myers, Operator, at (518) 945-1551. We want you to be informed about your drinking water.

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

Source of our water is Hollister Lake located on Schoharie Turnpike in the Town of Athens. During 2021, our system did not experience any restriction of our water source. Water is pumped to the treatment plant and the water treatment consists of the following processes which begin in the clarifier: 1) coagulation using an alum based product which causes large and small particles to stick together forming what is termed a "floc", these particles are then trapped and removed from the clarifier; 2) filtration then occurs as the water travels through layers of media beds of sand and charcoal; 3) new ultraviolet light technology along with chlorination is used to kill harmful bacteria and other organisms; 4) water is then polished in carbon filter tanks and sent to a storage tank where a corrosion inhibitor is added to protect the distribution system piping and household plumbing fixtures from corrosion. The storage capacity at the treatment plant is 100,000 gallons of treated water and a 750,000 gallon storage tank in the Village gives us a combined total storage capacity of 850,000 gallons of water to meet consumer demand and to provide adequate fire protection.

The NYSDOH has completed a source water assessment for this system, based on available information. Possible and actual threats to the drinking water sources were evaluated. The state source water assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how easily contaminants can move through the subsurface to the drinking water sources.

The susceptibility rating is an estimate of the potential for contamination of the source water, it does not mean that the water delivered to consumers is, or will become contaminated. See section "Are there contaminants in our Drinking Water?" for a list of the contaminants that have been detected.

As mentioned before, our water is derived from a reservoir. The source water assessment found no noteworthy risks to drinking water quality. While some potential contaminant sources were found, they are associated with the drinking water treatment plant and are therefore unlikely sources of contamination. It should be noted that reservoirs in general are highly sensitive to phosphorus and microbial contaminants. While the source water assessment rates our reservoir as being susceptible to microbials, please note that our water is disinfected to ensure that the finished water delivered into your home meets New York State's drinking water standards for microbial contamination. A copy of the assessment, including a map of the assessment area, can be obtained by contacting us, as noted below.

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, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, synthetic organic compounds, and radiologicals. 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.

It should be noted that all drinking water, including bottled drinking water, maybe 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 NYSDOH Oneonta District Office at (607) 432-3911.

FACTS AND FIGURES

The Village provides water through 795 service connections to a population of approximately 1700 people. Our average daily demand is approximately 112,730 gallons per day.

Table of Detected Contaminants							
Contaminant	Violation Yes/No	Dates of Samples	Level Detected (Avg/Max) (Range)	Unit Measurement	Regulatory Limit (MCL, TT or AL)	MCL G	Likely Source of Contamination
Copper	No	9/2020	0.20 ¹ Range: 0.012 -0.20	mg/l	AL=1.3	1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Lead	No	9/20	1.6 ² Range: 1.0 – 3.4	ug/l	AL=15	0	Corrosion of household plumbing systems; Erosion of natural deposits.
Barium	No	5/6/21	0.007	mg/l	MCL=2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	No	5/6/21	0.15	mg/l	MCL=2.2	N/A	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.
Total Trihalomethanes (TTHMs – chloroform, bromodichloromethane, dibromochloromethane, and bromoform)	Yes	Quarterly	82.89 ³ Range: 51.4-105.3	ug/l	MCL=80	N/A	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains organic matter.
Haloacetic Acids (mono-, di-, and trichloroacetic acid, and mono- and dibromoacetic acid)	No	Quarterly	42.0 ⁴ Range: 29.0-53.0	ug/l	MCL=60	N/A	By-product of drinking water disinfection needed to kill harmful organisms.
Chloride	No	10/2016	38	mg/l	MCL=250	N/A	Naturally occurring or indicative of road salt contamination.
Odor	No	10/2016	2	Units	MCL=3	N/A	Organic or inorganic pollutants originating from municipal and industrial waste discharges; natural sources.
Manganese	No	10/2016	20	ug/l	MCL=300	N/A	Naturally occurring; Indicative of landfill contamination.
Sodium	No	10/2016	24	mg/l	(see Health Effects) ⁵	N/A	Naturally occurring; Road salt; Water softeners; Animal waste.
Sulfate	No	10/2016	6	mg/l	MCL=250	N/A	Naturally occurring.
Zinc	No	10/2016	10.6	ug/L	MCL=5000	N/A	Naturally occurring; Mining waste.
Nickel	No	5/6/21	0.0013	mg/l	N/A	N/A	Naturally occurring.
Turbidity ⁶	No	8/16/21	0.18	NTU	TT≤1.0	N/A	Soil runoff
Turbidity ⁶	No	8/2021	100% ≤ 0.3	NTU	TT=95% of samples ≤0.3 NTU	N/A	
PFOA	No	Quarterly	<2.0 Range- ND-<2.0	ng/L	MRL- 2.0	N/A	Ground Water Contamination
PFOS	No	Quarterly	<2.0 Range- ND-<2.0	ng/L	MRL- 2.0	N/A	Ground Water Contamination

1,4-Dioxane	No	Quarterly	<0.07 Range- ND-<0.07	ug/L	MRL- 2.0	N/A	Ground Water Contamination
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Notes:

1. The level presented represents the 90th 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 90th 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 90th percentile value (0.20 mg/l) is the second highest value. The action level for copper was not exceeded at any of the sites tested.
2. The level presented represents the 90th percentile of the 10 sites tested. In this case, 10 samples were collected at your water system and the 90th percentile value (1.6 ug/l) is the highest value. The action level for lead was not exceeded at any of the sites tested.
3. The TTHM level reported (82.89 ug/l) is the highest locational running annual average calculated during 2021 and occurred during the 4th calendar quarter (October 1 – December 31). The locational running annual average is the average of the four most recent quarterly samples from a specific sampling point.
4. The HAA level reported (42.0 ug/l) is the highest locational running annual average calculated during 2020 and occurred during the 4th calendar quarter (October 1 – December 31). The locational running annual average is the average of the four most recent quarterly samples from a specific sampling point.
5. 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.
6. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. Our highest single turbidity measurement for the year occurred on 8/16/20 of 0.18 NTU. State regulations require that turbidity must always be less than or equal to 1.0 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 0.3 NTU. The levels recorded were within the acceptable range allowed and did not constitute a treatment technique violation.

Definitions:

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

Milligrams per liter (mg/L)-Corresponds to one part of liquid in one million parts of liquid (ppm)

Micrograms per liter (ug/L)-Corresponds to one part of liquid in one billion parts of liquid (ppb)

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

Minimal Risk Level (MRL)- An estimate of daily human exposure to a concentration of a chemical which has a minimal appreciable risk of cancerous effects over a specified time period.

Maximum Contaminant Level (MCL)- The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's 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. MCLG's 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

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.

WHAT DOES THIS INFORMATION MEAN?

The table shows that our system uncovered some problems this year. During the 2nd, 3rd, and 4th calendar quarter (April 1 through October 30) we exceeded the MCL for TTHMs. This violation existed until the quarterly sample was collected in the 1st calendar quarter of 2022 (January 1 – March 31). 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. We have corrected this by increasing backwash frequency of carbon filters, adjusting chemical addition and flushing of distribution system.

We are required to present the following information on lead in drinking water.

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 higher than at other homes in the community as a result of

materials used in your home's plumbing. Athens Village Water is responsible for providing high quality drinking water, but can not 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 the 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>.

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 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. 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, Village of Athens monitor fluoride levels on a daily basis to make sure fluoride is maintained at the 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 21% of the time. None of the monitoring results showed fluoride at levels that approach the 2.2 mg/l MCL for fluoride.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

All though our drinking water met or exceeded state and federal regulations, some people maybe 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).

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.
- 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.

IMPROVEMENTS

The Village of Athens made no significant improvements to the system this year, however the distribution system was flushed 3 times during the year 2021.

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. If you have questions, please call the Village Office at (518) 945-1551 and leave a message for Joseph Myers and he will return your call.