

Annual Drinking Water Quality Report for 2022
Alexander Public Water Supply
Alexander, NY 14005
(Public Water Supply ID# NY1800542)

INTRODUCTION

To comply with State regulations The Village of Alexander 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 many different contaminants. Some of these were tested daily. The other contaminants were tested in accordance with State and Federal guidelines. We did have some occasions where our results that were higher than the State allows. However, none of the violations were an immediate threat to public health. 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 Troy Robbins Water Superintendent 585-993-5871. 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 2nd Thursday of every month at 3350 Church St at 7:00pm.

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'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 785 people through 351 service connections. We purchase our water from the Village of Attica whose water source is three manmade reservoirs located in the Village of Attica on Dunbar Rd. Raw water enters the treatment plant through a 16 inch ductile iron pipe and is currently dosed with Sodium Permanganate. This chemical is a strong oxidant and has taken place of pre-filter chlorine as part of our efforts to reduce disinfection by-products in our system. The water is then strained to remove sticks, stones, plants, etc. Polyhydroxyl Aluminum Chloride (PAC) is added as a coagulant to help remove suspended dirt, silt, and color. The treated water flows through two flocculation chambers and into a settling chamber. Most of the coagulated materials are trapped in the settling tubes and the settled water then flows through a mixed media filter. These filters contain

layers of anthracite coal, silica sand and high density, sand. Filtered water is collected by an under drain system receives a precisely metered dose of hydrofluorsilicic acid (fluoride). The finished water is also treated with polyorthophosphate. This chemical reduces lead and cooper corrosion in the distribution system by forming a protective barrier between the water and the metal surfaces that it comes in contact with. It also controls the iron and manganese through sequestration which reduces staining of fixtures and clothing. A final dose of chlorine is injected to, insure that we maintain a minimum residual through the entire system. This process is completed in the Village of Attica Water Treatment Plant and delivered to the Town and Village of Alexander through water pipe system. Daily chlorine residual samples are taken at random locations and tested.

SOURCE WATER ASSESSMENT:

The New York State Health Department has completed a source water assessment for this system based on available information. The state source water assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how easy contaminants can enter our water source. A copy of this report is available at the Village office at 9 Water St, Attica New York. The assessment found elevated susceptibility to contamination for this 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 noteworthy contamination threats associated with discrete contaminant sources. Finally, it should be noted that hydrologic characteristics (e.g. basin shape and flushing rates) generally make reservoirs highly sensitive to existing and new sources of phosphorus and microbial contamination. The County and State Health Departments will use this information to direct future source water protection activities. The Village of Alexander and the New York Rural Water association have developed a written source water protection plan for our water supply. The plan addresses our watershed (water supply area) with regards to potential contaminants, susceptibility to contamination, source protection, best management practices and water system security and protection. In addition to these measures the Village of Alexander has an approved set of watershed rules and regulations that regulate many activities that could be negative impacts on water quality.

A copy of the assessment, including a map of the assessment area, can be obtained by contacting the Village Clerk at (585) 708-4167, the Genesee County Health Department at (585) 344-2580 or the NYSDOH.

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 cooper, volatile organic compounds, total trihalomethanes, haloacetic acids and synthetic organic compounds. 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, through representative, may be more than one year old.

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 the 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 Genesee Health Department at 344-2580.

Alexander Village – Table of Detected Contaminants

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Maximum) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL or AL)	Likely Source of Contamination
Lead	No	9/29/2022	.0014(1) ND-.0104	mg/L	0	0.015	Corrosion of household plumbing systems; Erosion of natural deposits
Copper	No	9/29/2022	.804(1) .0053-.839	mg/L	1.3	1.3	Corrosion of household plumbing systems; Erosion of natural deposits
Total Trihalomethanes	YES	2022 quarterly	84.5 (2) (54.3-71.3)	ug/L	n/a	80	By-product of water chlorination
Haloacetic Acids	No	2022 quarterly	50 (2) (34.7-61.6)	ug/L	n/a	60	By-product of water chlorination

NOTES:

- (1) The level in the table represents the 90th percentile of the 10 sites tested. The results of the lead and copper tested at the ten sites did not exceed the action level (AL)
- (2) This level represents the highest locational running annual average (LRAA) calculated from data collected.

Definitions:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close 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 that a water system must follow.

Milligrams per Liter (mg/L): Corresponds to one part 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).

WHAT DOES THIS INFORMATION MEAN?

The table shows that our system encountered some problems this year. In the 1st and 2nd quarter of 2022 our water system exceeded the Total Trihalomethanes (TTHM) LRAA MCL. The TTHM levels in our system exceeded the LRAA MCL every quarter from the 2nd quarter of 2021 through the 2nd quarter of 2022 resulting in five consecutive quarters of MCL violations. This triggered an administrative order from the EPA. To satisfy this order the Village Of Alexander is testing monthly for TTHM and has submitted a corrective action plan. To improve this situation we have implemented a flushing program that will draw fresh water into the system and increased the filling cycle on our storage tank. We are also working with the Village Of Attica to improve these levels.

Disinfection Byproducts including TTHM's are the result of chlorination of our water supply. When chlorine is added to water with large amounts of organic matter these compounds can be formed. 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. We have had marginal success with treatment chemicals named Sodium Permanganate and powdered activated carbon. Treating with these chemicals has reduced our dependency on chlorine at our treatment plant and generally reduced the levels.

INFORMATION ON 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. Alexander Village PWS 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>.

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 FLUORIDE ADDITION

Our system is one of the many drinking water systems in New York State that provide drinking water with 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. We have determined to use a target level of 0.60 mg/L. Our daily testing shows results ranging from 0.54 to 0.85 mg/L and we remained within 0.10 mg/L of that target dosage in 94.8% of the samples. The yearly average of daily fluoride testing was 0.654mg/L. None of the monitoring results showed fluoride at levels that approach the 2.2 mg/l MCL for fluoride. This information is included in the Village Of Attica's attached report.

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 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 cost 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 any questions about this report or concerning your drinking water, please contact Troy Robbins, Water Superintendent at 585-993-5871.

Troy Robbins Water Superintendent,
Alexander PWS

ATTACHED IS THE VILLAGE OF ATTICA'S ANNUAL WATER QUALITY REPORT 2022

