

*Annual Drinking Water Quality Report for 2019  
Village of Alfred Water System  
7 West University St.  
Alfred, NY 14802  
NY. Public Water Supply ID# NY0200309*

## **INTRODUCTION**

To comply with State and Federal regulations, The Village of Alfred water department will be issuing an annual 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; we are proud to report that our system did not violate a maximum contaminant level or any other water quality statement. This report provides an overview of last year's water quality and includes 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 concerning your drinking water, please contact Bryan Dodge, Chief water operator at 607-587-9163. 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 held on the first Tuesday of the month at the 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 limiting the number 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 sources for the Village of Alfred water system are drawn from two different groundwater wells located on Shaw rd in the Town of Alfred. This source of water is called ground water, which requires a well and pump to withdrawal water from the ground. Both of Alfred's wells are located on Shaw Road in Alfred Station. The water is treated with chlorine gas at .4 MG/L prior to distribution.

## **FACTS AND FIGURES**

Our water system serves approximately 3,500 people, two campus' through 650 service connections. The total water produced in 2019 was approximately 117 million gallons. The daily average of water treated and pumped into the distribution system was 161,000 thousand gallons per day. Our highest single day was 640,000 gallons.

## ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, inorganic compounds, sodium, total trihalomethanes, halo acetic acid, nitrate, lead and copper, volatile organic compounds, arsenic, gross alpha, radium 226, radium 228, uranium, 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, though representative, is more than one year old.

Please note 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 Allegany County Health Department at 585-268-9250

<b>Table of Detected Contaminants from Well #1</b>							
<b>Contaminant</b>	<b>Violation Yes/No</b>	<b>Date Of Sample</b>	<b>Level Detected (average) (Range)</b>	<b>Unit Measurement</b>	<b>MCLG</b>	<b>Regulatory limit (MCL,TT, or AL)</b>	<b>Likely source of Contamination</b>
Sodium*	No	8/21/2019	66.2	MG/L	N/A	1.00	Naturally occurring, road salt, water softeners.
Nitrate	No	8/21/2019	1.06	MG/L	10	0.0500	Run off of fertilizer use; leaching from septic tanks, sewage; animal waste, erosion of natural deposit
Barium	No	8/21/2019	0.122	MG/L	2	2	Discharge of drilling waste; Discharge from metal refiners, erosion of natural deposits
Chromium	No	8/21/2019	0.0036	MG/L	100	100	Discharge from steel and pulp mills; Erosion of natural deposits.
Nickel	No	8/21/2019	0.0019	MG/L	N/A	N/A	N/A
Gross Alpha	No	08/21/2019	0.233	pCi/L	15	15	Erosion of natural deposits.
Radium-226	No	08/21/2019	0.598	pCi/L	15	15	Erosion of natural deposits.
Radium-228	No	08/21/2019	0.57	pCi/L	15	15	Erosion of natural deposits.
Uranium	No	08/21/2019	0.799	pCi/L	30	30	Erosion of natural deposits.

<b>Table of Detected Contaminants from Well #2</b>							
<b>Contaminant</b>	<b>Violation Yes/no</b>	<b>Date Of Sample</b>	<b>Level Detected (average) (Range)</b>	<b>Unit Measurement</b>	<b>MCLG</b>	<b>Regulatory limit (MCL,TT, or AL)</b>	<b>Likely source of Contamination</b>
Sodium*	No	8/21/2019	182	MG/L	N/A	1.02	Naturally occurring, road salt, water softeners.
Nitrate	No	8/21/2019	1.16	MG/L	10	0.0500	Run off of fertilizer use; leaching from septic tanks, sewage; animal waste, erosion of natural deposit
Barium	No	8/21/2019	0.152	MG/L	2	2	Discharge of drilling waste; Discharge from metal refiners, erosion of natural deposits
Nickel	No	8/21/2019	0.0016	MG/L	N/A	N/A	N/A
Gross Alpha	No	08/21/2019	1.47	pCi/L	15	15	Erosion of natural deposits.
Radium-226	No	08/21/2019	0.627	pCi/L	15	15	Erosion of natural deposits.
Radium-228	No	08/21/2019	1.1	pCi/L	15	15	Erosion of natural deposits.
Uranium	No	08/21/2019	0.749	pCi/L	30	30	Erosion of natural deposits.

\* 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.

**Table of Detected Contaminants from Lead and Copper**

<b>Contaminant</b>	<b>Violation Yes/No</b>	<b>Date of sample</b>	<b>Level Detected (Average ) (Range)</b>	<b>Unit measurement</b>	<b>MCLG</b>	<b>Regulatory limit</b>	<b>Likely source of contamination</b>
Lead	No	08/23/2017	0.0073	MG/L	0	AL 0.015	Corrosion of household plumbing system; Erosion of natural deposits
Copper	No	08/23/2017	0.155	MG/L	1.3	AL 1.3	Corrosion of galvanized pipes; Leaching from wood preservatives.

(If present, elevated levels of lead can be serious health problem, 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. Village of Alfred 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>.)

\*ALL ORGANICS ARE THE DETECTION LIMIT DO NOT NEED TO BE REPORTED

1 - The level presented represents the 90<sup>th</sup> percentile of the 20 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 range of detection for Lead was 0.0011 mg/l to 0.0131 mg/l. The 90<sup>th</sup> percentile is equal to or greater than 90% of the copper values detected at your water system. The range of detection for Copper was 0.028 mg/l to 0.231 mg/l. The action level for both Lead and Copper were not exceeded.

**Table of Detected Contaminants**

<b>Contaminant</b>	<b>Violation Yes/No</b>	<b>Date of Sample</b>	<b>Level Detected (Average ) (Range)</b>	<b>Unit Measure ment</b>	<b>MCLG</b>	<b>Regulatory limit (MCL, TT, or AL)</b>	<b>Likely source of contaminatio n</b>
Total Trihalomethanes	No	08/21/2019	3.75	Ug/l	80.0	2.00	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains organic matter.
Total Haloacetic Acids (HAA5)	No	08/21/2019	1.51	Ug/l	60.0	0.50	By-product of drinking water chlorination needed to kill harmful organisms.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of 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.

**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..

**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).

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

We have learned through testing that some contaminants have been detected; however, these contaminants were detected below the level allowable by the State. We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether your drinking water meets health standards. During 2018, we did not monitor for Principal Inorganic Compounds which is a violation. We did sample for Inorganic Compounds in 2019 which is reflected in the table above, which insures the quality of your drinking water is being monitored.

## **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).

## **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 several 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 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.
- ◆ 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.

♦ *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, our way of life, and our children's future. Please call our office if you have questions.

## AWQR Summary

The New York State Department of Health has completed a Source Water Assessment for this water system, based on available information. Possible and actual threats to the source of drinking water for this system were evaluated. The 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 wells. The susceptibility rating is an estimate of the potential for the contamination of the source water, it does not mean that the water delivered to consumers is, or will become contaminated. Please refer to the section in this Annual Water Quality Report (AWQR) entitled “Are There Contaminants In Our Drinking Water?” for a list of the contaminants for which the water has been tested and the test results. The source water assessments provide managers with additional information for protecting source waters into the future.

The water for this system comes from two (2) drilled wells. The Source Water Assessment has rated the wells as having a very high susceptibility to contamination from enteric bacteria and nitrates, and a high susceptibility to contamination from protozoa, metals, industrial solvents, and other industrial contaminants. Primarily, these ratings are due to the close proximity of the wells to one (1) U.S. Environmental Protection Agency (EPA) regulated discharge facility (Vesuvius Hi-Tech Ceramics) that discharges wastewater into the environment below the surface of the ground, two (2) EPA regulated pipelines, one (1) New York State Department of Environmental Conservation (DEC) permitted discharge facility (Vesuvius Hi-Tech Ceramics septic system) that discharges wastewater into the environment below the surface of the ground, and one (1) mine (Buffalo Crushed Stone, Inc.). In addition, past water sampling has shown nitrates levels consistent with the wells having high chemical sensitivity. The fact that both wells draw water from an unconfined aquifer also contributes to susceptibility ratings.

Please note that while Source Water Assessment rated the two wells as having a very high susceptibility to bacteria, the water is disinfected before it is delivered to your home to ensure the finished water meets New York State drinking water standards for bacterial contamination.

A copy of the Source Water Assessment, including a map of the assessment area, can be obtained by calling  
(607)-587-9163.