

*Annual Drinking Water Quality Report for 2011  
Village of Alfred Water System  
7 West University St.  
Alfred, NY 14802  
Public Water Supply ID# 0200309*

## **INTRODUCTION**

To comply with State and Federal regulations, The Village of Alfred water system 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, your tap water met all State drinking water health standards. We are proud to report that our system has never violated a maximum contaminant level or any other water quality statement. 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 James McNulty, Superintendent of Public Works, 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. The meetings are 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 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 source is drawn from two wells. This source of water is called ground water and requires a well and pump for withdrawal. 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. Our water system serves approximately 5,000 people through 648 service connections.

## **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, Inorganic Compounds, Sodium, Total Trihalo Methanes, Halo Acetic Acid, Nitrate, Nitrite, 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, are 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 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 716-268-9250

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contaminants include: total coliform, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, and synthetic organic compounds.

Table of Detected Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected (Average) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
WELL #1							
Sodium	No	10/26/11	25.1	MG/L	N/A	0.2	Naturally occurring Road salt Water softeners; Animal waste.
Nitrate	No	10/26/11	1.24	MG/L	10	0.2	Run off fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposit
Fluoride	No	1-21-2009	0.11	MG/L	N/A	2.2	Erosion of natural deposits;
Barium	No	1-21-2009	0.0847	MG/L	2	2	Discharge of drilling waste; Discharge from metal Refiners; Erosion of natural deposits.
Nickel	NO	1/21/2009	0.0019	MG/L	N/A	0.1	Erosion of natural deposits.
WELL #2							
Nitrate	No	10/26/11	1.39	MG/L	10	0.2	Run off fertilizer use; leaching from septic tanks sewage; Erosion of natural deposits.
Sodium	No	10/26/11	61.4	MG/L	N/A	0.2	Naturally occurring; Road salt Water softeners; Animal waste.
Fluoride	No	1-21-2009	0.11	MG/L	N/A	2.2	Erosion of natural deposits;
Barium	No	1-21-2009	0.0880	MG/L	2	2	Discharge of drilling waste; Discharge from metal Refiners; Erosion of natural deposits.
Nickel	NO	1/21/2009	0.0019	MG/L	N/A	0.1	Erosion of natural deposits.
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Total Trihalomethanes	No	9/01/07	7.5	ug/l	NA	80 MCL	By-product of drinking water Chlorination needed to kill harmful organisms.
Lead	no	7/21/10	0.0043	ug/l	0	AL 0.015	Corrosion of Household Plumbing system; Erosion of Natural deposits

(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>.)

Copper	no	7/21/10	0.141	MG/L	1.3	AL 1.3	Corrosion of galvanized pipes; Erosion of natural deposits; Leaching from wood Preservatives.
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\*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 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.

**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?

As you can see by the table, our system had no violations. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below the level allowed by the State.

As you can see by the table, our system had no violations, but we have learned through our testing that some contaminants have been detected; however, these contaminants were detected below New York State requirements. Although nitrate was detected below the MCL, it was detected at 1.19 MG/L at Well 1 & 1.46 at Well 2 which is less than one-half of the MCL. Therefore, we are required to present the following information on nitrate in drinking water:

“Nitrate in drinking water at levels above 10 mg/l is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from you health care provider.”

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“EPA is reviewing the drinking water standard for arsenic because of special concerns that it may not be stringent enough. Arsenic is a naturally-occurring mineral known to cause cancer in humans at high concentrations.”

## **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 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 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.

Village of Alfred  
NY0200309  
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.