

# ***Annual Drinking Water Quality Report for 2016***

Village of Alexandria Bay  
P.O. Box 367, Alexandria Bay, NY 13607  
(Public Water Supply ID#2202328)

## **INTRODUCTION**

To comply with State and Federal regulations, Village of Alexandria Bay 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 **Greg Millett, Chief Operator, at (315) 482-2171**. 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 second Tuesday of each month at 5:30 p.m. at the Municipal complex on outer Walton St.

## **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.

The Village of Alexandria Bay obtains its drinking water from the St. Lawrence River. The intake line extends 650 feet into the main shipping channel at a depth of 60 feet. The water is conveyed to the treatment facility by two low lift pumps to the three R.P. Adams diatomaceous earth filters, followed by disinfection with sodium hypochlorite. After the water is detained in a clearwell it is conveyed to the distribution system via two high lift pumps. The treatment plant was upgraded / rehabilitated in 1991.

Our water system serves a population of 1194 through 550 service connections.

## **Source Water Assessment**

The Great Lakes watershed is exceptionally large and too big for a detailed evaluation in the SWAP. General drinking water concerns for public water supplies which use these sources include: storm generated turbidity, wastewater, toxic sediments, shipping related spills, and problems associated with exotic species (e.g. zebra mussels- intake clogging and taste and odor problems). The summary below is based on the analysis of the contaminant inventory compiled for the drainage area deemed most likely to impact drinking water quality at the PWS intake.

The assessment found a moderate susceptibility to contamination for this source of drinking water. The amount of agricultural lands in the assessment area results in medium potential for microbial and DBP precursors contamination. There is also a moderate density of sanitary wastewater discharges which results in elevated susceptibility for nearly all contaminant categories. There is also noteworthy contamination susceptibility associated with other discrete contaminant sources, and these facility types include: mines and landfills. A copy of the assessment can be obtained by contacting the supplier of water.

## **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, 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 Watertown District Office of the New York State Department of Health at (315) 785-2277.

**Table of Detected Contaminants**

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Average) (Range) (Max)	Unit Measure-ment	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
<b>Inorganic Contaminants (IOC)</b>							
Copper	No	8/14	379	ug/l	1300	AL= 1300	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Lead	No	8/14	2.16	ug/l	0	AL= 15	Corrosion of household plumbing systems; Erosion of natural deposits.
Turbidity	No	Daily (2016)	(.10) (.07 - 0.2) (0.2)	NTU	0	TT= 1.0	Soil Run-off
Barium	No	9/14	24	ug/l	2000	2000	Discharge of drilling waste; Discharge from Metal refineries; Erosion of Natural deposits
Fluoride	No	03/11	0.2	mg/l	N/A	2.2	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate	No	10/25	0.21	mg/l	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
<b>Radiological Contaminants</b>							
Gross Alpha	No	Quarterly Avg	1.33	pCi/L	0	15	Erosion of natural deposits
Radium 226	No	Quarterly Avg	0.08	pCi/L	0	5	Erosion of natural deposits
Radium 228	No	Quarterly Avg	0.235	pCi/L	0	5	Erosion of natural deposits

Disinfection By-products							
Chlorine Residual	No	Daily average	1.60 (1.2 – 2.0) (2.2)	mg/l	N/A	4.0	By-product of drinking water chlorination.
Total Trihalomethanes (TTHM)	No	Annual average	45	ug/l	0	80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
Haloacetic Acids (HAA5)	No	Annual average	15	ug/l	0	60	By-product of drinking water chlorination.

#### 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 for the year occurred on January 11, 2016 (0.2 NTU). State regulations require that turbidity must always be below 1 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 0.5 NTU. Although August was the month when we had the fewest measurements meeting the treatment technique for turbidity, the levels recorded were within the acceptable range allowed and did not constitute a treatment technique violation.

2 – The level presented represents the 90<sup>th</sup> 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 90<sup>th</sup> 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 90<sup>th</sup> percentile value was the 379 ug/l value. The action level for copper was not exceeded at any of the sites tested.

3 – The level presented represents the 90<sup>th</sup> percentile of the 10 samples collected. The action level for lead was exceeded at 1 of the 10 sites tested.

#### 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.

**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.

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

**Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.

**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).

#### **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.

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

During 2016, our system was in compliance with all applicable State drinking water requirements.

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 at (315) 482-2171.**