

Annual Drinking Water Quality Report for 2016

***Town of Louisville
14810 SH 37, Massena NY 13662
Public Water Supply ID# NY 4430133***

INTRODUCTION

To comply with State regulations, the Town of Louisville, 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 did not violate a maximum contaminant level or any other water quality standard. 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 Steve Siddon, Water Plant Operator, at (315) 769-2431. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled town board meetings. The meetings are held the second Wednesday of each month at the Town Office Building on Rt. 37. Please call the Town of Louisville office at (315) 769-0457 for more information.

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 approximately 3100 people through 1136 service connections. Our water comes from the St. Lawrence River which is a surface water source. The Water Treatment Plant is located on Country Club Lane, next to the golf course. The water is pumped through diatomaceous earth filters, then chlorinated and a small amount of zinc orthophosphate is added to control corrosion. It is then stored temporarily in a clearwell tank at the water plant site. Seasonally, the water may pass through carbon filters to remove taste and odor compounds. High-lift pumps then pump the water into the distribution system and the water storage tanks.

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, radiological and synthetic organic compounds. The following table 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 NYS Health Department Canton office at (315) 386-1040.

The NYS DOH has evaluated this Public Water Supply (PWS's) susceptibility to contamination under the Source Water Assessment Program (SWAP), and their findings are summarized in the paragraphs below. It is important to stress that

these assessments were created using available information and only estimate the potential for untreated drinking water sources to be impacted by contamination. Elevated susceptibility ratings do not mean that source water contamination has or will occur for this PWS. This PWS provides treatment and regular monitoring to ensure the water delivered to consumers meets all applicable standards.

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 this PWS intake.

This assessment found a moderate susceptibility to contamination for this source of drinking water. The amount of agricultural lands in the assessment area results in elevated potential for protozoa and pesticides contamination. In addition, the moderate density of CAFOs (Concentration Animal Feeding Operations) in the assessment area may add to the potential for contamination. There is also noteworthy contamination susceptibility associated with other discrete contaminate sources, and these facility types include: landfills and mines.

Table of Detected Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Turbidity ¹ Entry Point	No	12/2016	100% ≤ 1.0	NTU	N/A	TT= 95% Of samples ≤ 1.0 NTU	Soil runoff.
Turbidity ¹ Distribution	No	11/2016	0.33	NTU	N/A	TT=<5.0 NTU	Soil runoff.
Nitrate	No	10/2016	0.167	mg/l	10	10	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits.
Total Trihalomethanes	No	8/2016	Average= 11	ug/l	N/A	80	Byproduct of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
Haloacetic Acids	No	8/2016	Average= 26	ug/l	N/A	60	Byproduct of drinking water chlorination needed to kill harmful organisms.
Barium	No	12/2016	0.0219	ug/l	2	2	Discharge of drilling wastes; runoff from orchards.
Fluoride	No	10/2015	0.124	mg/l	2.2	2.2	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
Lead	No	9/2015	< 0.0007-0.0014	ug/l	0	AL= 15	Corrosion of household plumbing systems; Erosion of natural deposits;
Copper ²	No	9/2015	< 0.143-0.706	mg/l	1.3	AL= 1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.

Gross Alpha	No	12/2016	0.549 ± 0.341	pCi/L	N/A	15	Erosion of natural deposits.
Gross Beta	No	12/2016	1.86 ± 0.563	pCi/L	N/A	50	Erosion of natural deposits.
Radium 226	No	12/2016	-0.091± 0.590	pCi/L	N/A	5	Erosion of natural deposits.
Radium 228	No	12/2016	0.480 ± 0.415	pCi/L	N/A	5	Erosion of natural deposits.

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 Dec.17th. State regulations require that turbidity must always be below 5 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 0.5 NTU.

2 – 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 was the second highest value, 0.61 mg/l. The action level for copper was not exceeded at any of the 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).

pCi/L - Picocuries per liter (a measure of radiation).

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 applicable State drinking water operating, monitoring and reporting requirements.

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.

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. Please call our office if you have questions.