

**Annual Drinking Water Quality Report for 2018
Town Of Lowville
5533 Bostwick Street
Lowville, NY 13367
Public Water Supply ID# NY 2430039**

INTRODUCTION

To comply with State regulations, The Town of Lowville 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. This report provides an overview of last year's water quality.

If you have any questions about this report or concerning your drinking water, please contact Thomas N. Widrick Superintendent of Highways/Special Districts, 315-376-6424. We want you to be informed about your drinking water.



WHERE DOES OUR WATER COME FROM?

The Town of Lowville Consolidated District # 1 purchases water from the Village of Lowville. The water is pumped from the area of the Village's 3 million gallon tank to the Town's 200,000 gallon storage tank. As the water enters the tank, chlorine is added. New monitoring and control equipment has been installed to more closely regulate the amount of chlorine added at this point in the system. From the storage tank the water is distributed to the district's customers. Attached is a copy of the Village's 2018 Annual Water Quality Report.

The Town of Lowville Consolidated District # 1 is under an Administrative Order from the EPA due to violations of the Stage 2 Disinfection Byproduct Rule. Disinfection Byproducts are formed when surface water is disinfected with chlorine. The Village's source is surface water, adding chlorine as water enters our system as the district is required to do, increases the amount of these byproducts. Currently the Town is implementing a number of efforts to bring this violation into compliance. More efficient chlorine addition is anticipated to lower the byproduct levels but alone will not solve the problem. The Town has completed a Pilot Study using Granulated Activated Carbon (GAC) filters. The test results look promising, but no official decision has been made on them. The Village of Lowville is working on lowering their Disinfection Byproduct levels with raw water pretreatment, this will further lower levels in our system but may not bring it into complete compliance. The Town of Lowville is investigating purchasing water from the Town of Watson's new groundwater system when it is operational. Groundwater typically produces very little Disinfection Products during chlorination because it does not have the Total and Dissolved Organic Carbon that surface water has. These carbons react with chlorine and produce the byproducts we are trying to eliminate. While this would require a dedicated water line from the Watson site to the Town of Lowville system, at considerable expense, it may well be the solution to our Disinfection Byproduct problems.

Town staff is always looking for unaccounted for water. Unaccounted for water includes fire fighting, hydrant flushing and leakage. Leaks typically start small and increase in size and water loss until they surface or pressure problems are noticed. If you notice any significant change in pressure, noise on your plumbing fixtures or unusual wet spots, please report them to the highway Town of Lowville department at 315-376-6424 or the Town of Lowville office at 315-376-8070.

Table of Detected Contaminants

Contaminant	Violation (Yes/No)	Date of Sample	Level Detected (Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Microbiological Contaminants							
Total Coliform	No	1/1/18-12/31/18	0	N/A	0	MCL - 2 or more positive samples	Naturally present in environment
Disinfection By-Products							
Total Trihalomethanes (TTHMs)	No	Once per Quarter 2018	56.1 (1) (36.5-92.4)	ug/l (parts per billion)	N/A	MCL = 80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter.
Total Haloacetic Acids (HAAs)	Yes	Once per Quarter 2018	139.0 (2) (60.9-247.0)	ug/l (parts per billion)	N/A	MCL = 60	By-product of drinking water disinfection needed to kill harmful organisms.
Chlorine Residual	No	01/01/18 12/31/18	2.08 (3) 0.54-2.08	mg/l	N/A	MCL = 4 ⁽⁸⁾	By-product of drinking water chlorination.

Table Notes:

⁽¹⁾ This level represents the highest locational rolling annual average calculated from data collected during the calendar year 2018, and the range of detected values.

⁽²⁾ This level represents the highest locational rolling annual average calculated from data collected during the calendar year 2018, and the range of detected values. Haloacetic acids (HAA5s) are by-products of the drinking water disinfection process.

⁽³⁾ This level represents the single highest chlorine residual measurement recorded in the distribution system on the date shown, as well as the range of chlorine residual measurements that were recorded in the distribution system during the 2018 calendar year.

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).

Nanograms per liter (ng/l): Corresponds to one part of liquid to one trillion parts of liquid (parts per trillion - ppt).

Picograms per liter (pg/l): Corresponds to one part per of liquid to one quadrillion parts of liquid (parts per quadrillion – ppq).

Picocuries per liter (pCi/L): A measure of the radioactivity in water.

Millirems per year (mrem/yr): A measure of radiation absorbed by the body.

Million Fibers per Liter (MFL): A measure of the presence of asbestos fibers that are longer than 10 micrometers.

WHAT DOES THIS INFORMATION MEAN?

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. The Village of Lowville 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).



IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

The Town has had continual difficulties meeting the requirements for the Stage II DBP levels for HAA5's. TTHM's, while currently in compliance, have had violations in the past. Violations occur when the running average for an individual location exceed the MCL. The running average is calculated with the 4 most recent quarter results for an individual site. A violation that occurs at a single site that is not isolated from the rest of the system requires a city wide notification.

Where do TTHM's and HAA5's come from? Trihalomethanes and Haloacetic acids are a groups of chemicals that are formed in drinking water during treatment by chlorine, which reacts with certain acids that are in naturally-occurring organic material (e.g., decomposing vegetation such as tree leaves, algae or other aquatic plants) in surface water sources such as rivers and lakes. The amount of Trihalomethanes and Haloacetic acids in drinking water can change from day to day, depending on the temperature, the amount of organic material in the water, the amount of chlorine added, and a variety of other factors. Drinking water is disinfected by public water suppliers to kill bacteria and viruses that could cause serious illnesses. Chlorine is the most commonly used disinfectant in New York State. For this reason, disinfection of drinking water by chlorination is beneficial to public health.

IMPORTANT INFORMATION ABOUT THM'S Some studies suggest that people who drink chlorinated water (which contains trihalomethanes) or water containing elevated levels of trihalomethanes for long periods of time may have an increased risk for certain health effects. For example, some studies of people who drank chlorinated drinking water for 20 to 30 years show that long term exposure to disinfection by-products (including trihalomethanes) is associated with an increased risk for certain types of cancer. A few studies of women who drank water containing trihalomethanes during pregnancy show an association between exposure to elevated levels of trihalomethanes and small increased risks for low birth weights, miscarriages and birth defects. However, in each of the studies, how long and how frequently people actually drank the water, as well as how much trihalomethanes the water contained is not known for certain. Therefore, we do not know for sure if the observed increases in risk for cancer and other health effects are due to trihalomethanes or some other factor. The individual trihalomethanes chloroform,

bromodichloromethane and dibromochloromethane cause cancer in laboratory animals exposed to high levels over their lifetimes. Chloroform, bromodichloromethane and dibromochloromethane are also known to cause effects in laboratory animals after high levels of exposure, primarily on the liver, kidney, nervous system and on their ability to bear healthy offspring. Chemicals that cause adverse health effects in laboratory animals after high levels of exposure may pose a risk for adverse health effects in humans exposed to lower levels over long periods of time.

IMPORTANT INFORMATION ABOUT HAA5's Some studies of people who drank chlorinated drinking water for 20 to 30 years show that long term exposure to disinfection by-products (possibly including haloacetic acids) is associated with an increased risk for certain types of cancer. However, how long and how frequently people actually drank the water as well as how much haloacetic acids the water contained is not known for certain.

Therefore, we do not know for sure if the observed increased risk for cancer is due to haloacetic acids, other disinfection by-products, or some other factor. The individual haloacetic acids dichloroacetic acid and trichloroacetic acid cause cancer in laboratory animals exposed to high levels over their lifetimes. Dichloroacetic acid and trichloroacetic acid are also known to cause other effects in laboratory animals after high levels of exposure, primarily on the liver, kidney and nervous system and on their ability to bear healthy offspring. Chemicals that cause effects in animals after high levels of exposure may pose a risk to humans exposed to similar or lower levels over long periods of time.

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 (800426-4791).