

VILLAGE OF LYNDONVILLE
&
TOWN OF YATES
(DISTRICT # 4)

2023 Annual Water Quality Report

Annual Drinking Water Quality Report for 2023

VILLAGE OF LYNDONVILLE WATER SYSTEM:
2 South Main Street, Lyndonville, N.Y. 14098
(Public Water Supply ID# NY3600599)

And Town of Yates Water District # 4
(Public Water Supply ID # NY3630017)

INTRODUCTION:
The Village of Lyndonville and Town of Yates are pleased to present to you this year's Annual Water Quality Report for water delivered in 2023. This report is designed to inform you about the quality and services we deliver to you every day and the efforts we make to continually improve the water treatment process and protect our water resources. Our constant goal is to provide a safe and dependable supply of drinking water. Included in this report 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 **Devan Freeman, Superintendent of Public Works at (585) 765-9312.** We encourage our valued customers to be informed about their drinking water. We invite you to attend any of our regularly scheduled meetings on the 1st Monday of every month at the Village Hall, 2 South Main Street, Lyndonville N.Y. 14098. Customers of the Town of Yates Water District #4 may also contact **Roger Wolfe, Town of Yates Highway Superintendent at (585) 765-9735** or attend Town Board meetings held on the 2nd Thursday of each month at the Town Hall, 8 South Main Street, Lyndonville. Both systems are regulated by the Orleans County Health Department at (585) 589-3278.

FACTS AND FIGURES:
The Village of Lyndonville serves approximately 1050 people through 425 service connections. In addition, the Village supplies potable water to The Town of Yates Water District # 4 which serves approximately 1965 people through 827 service connections. The total water produced by Lyndonville in 2023 was 75,003,000 gallons for an average daily production of 205,000 gallons. The highest output for a single day was 349,000 gallons. Approximately 88% of the total water produced by Lyndonville and the water purchased by Yates was billed directly to consumers. The unaccounted-for water was used for flushing mains, water plant operations, distribution system leaks, and fighting fires. Customers were charged $3.50 to $9.00 per 1000 gallons, with the average customer using about 9000 gallons per quarter.

WHERE DOES OUR WATER COME FROM?
The drinking water source for the Village of Lyndonville is surface water drawn from Lake Ontario. The water treatment plant, located at the northern end of Lyndonville Rd in the Town of Yates, has the capacity to produce 400,000 gallons per day. The treatment process includes coagulation, flocculation, sedimentation and a slow-sand filtration process to ensure the quality of the water. Chlorine for disinfection and fluoride for the prevention of tooth decay is added prior to distribution to Lyndonville and Yates.

HOW DO CONTAMINANTS GET INTO THE SOURCE WATER?
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 materials, 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 and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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, lead and copper, volatile organic compounds, total trihalomenthanes, haloacetic acids, radiological and synthetic organic compounds, 1.4 dioxane and perfluorinated and polyfluorinated alkyl acids. 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 the 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 Orleans County Health Department at (585) 589-3278.

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.

Table 1: Detected Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected Avg./Max (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT, AL or MRDL)	Likely Source of Contamination
Inorganic Contaminants							
Chlorine	No	2023 Average	1.2 (1.0-1.7)	mg/L	N/A	MRDL	Drinking water disinfection
Fluoride	No	2023 Average	0.7 (0.6-0.9)	mg/L	N/A	MCL=2.2	Erosion of natural deposits; Drinking water additive
Barium	No	8/2023	0.024	mg/L	2	MCL=2	Discharge of drilling wastes; Erosion of natural deposits.
Copper	No	8/2022	0.18*	mg/L	1.3	AL=1.3	Corrosion of copper pipes; Erosion of natural deposits
Lead	No	8/2022	.0028**	mg/L	0	AL=0.015	Corrosion of household plumbing; Erosion of natural deposits
Nitrate	No	3/2023	0.39	mg/L	10	MCL=10.0	Runoff from fertilizer, septic tank leaching, Erosion of natural deposits
Entry point Turbidity	No	2023	0.02† (0.01-0.03)	NTU	N/A	MCL=1.0	Soil Runoff
Distribution Turbidity	No	2023	0.02† (0.01-0.29)	NTU	N/A	MCL=1.0	Soil Runoff
Lyndonville Disinfection Byproducts							
TotalTrihalomethanes	No	2023 Annual Average	44‡ (44)	ug/L	N/A	MCL=80	Byproduct of drinking water chlorination
Haloacetic acids	No	2023 Annual Average	22‡ (22)	ug/L	N/A	MCL= 60	Byproduct of drinking water chlorination

* The level presented represents the 90th percentile of the ten sites tested. A percentile is a value on the 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, ten samples were collected at our water system and the 90th percentile value was the ninth highest value of 0.18 mg/l. The action levels for copper were not exceeded at any of the 10 sites tested

** The level presented represents the 90th percentile of the ten sites tested. The 90th percentile value was the ninth highest value of 2.8 mg/l. The action level for lead was not exceeded at any of the 10 sites tested.

† 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. State regulations require that turbidity must always be below 1 NTU and 95% of the turbidity samples collected have measurements below 1 NTU. Our highest turbidity measurement for the year was 0.29 NTU. The levels recorded were well below the acceptable range and did not constitute a treatment technique violation.

‡ The Village of Lyndonville is on reduced monitoring for TTHMs and HAA5s. Samples were collected in August of 2023. The Town of Yates samples were collected quarterly in 2023.

Table 2: Detected Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected Avg./Max (Range)	Unit	MCLG	Regulatory Limit (MCL, TT, AL or MRDL)	Likely Source of Contamination
Perfluorinated and Polyflourinated Alkyl Acids							
Perfluorobutanoic Acid (PFBA)	No	11/2023	2.74[§]	ng/l	N/A	MCL = 10 ng/L	Industrial chemical found in many consumer products
Perfluorooctanesulfonic Acid (PFOS)	No	11/2023	1.41§	ng/l	N/A	MCL = 10 ng/L	Industrial chemical found in many consumer products
Perfluorooctanoic Acid (PFOA)	No	11/2023	1.87§	ng/l	N/A	MCL = 10 ng/L	Industrial chemical found in many consumer products
Perfluoropentanoic Acid (PFPeA)	No	11/2023	1.98§	ng/l	N/A	MCL = 10 ng/L	Industrial chemical found in many consumer products
Perfluorobutanesulfonic Acid (PFBS)	No	11/2023	0.9571§	ng/l	N/A	MCL = 10 ng/L	Industrial chemical found in many consumer products
Perfluorohexanoic Acid (PFHxA)	No	11/2023	2.11§	ng/l	N/A	MCL = 10 ng/L	Industrial chemical found in many consumer products
Perfluoroheptanoic Acid (PFHpA)	No	11/2023	1.32§	ng/l	N/A	MCL = 10 ng/L	Industrial chemical found in many consumer products
Perfluorohexanesulfonic Acid (PFHxS)	No	11/2023	0.818§	ng/l	N/A	MCL = 10 ng/L	Industrial chemical found in many consumer products
Yates #4 Disinfection Byproducts							
Total Trihalomethanes	No	2023 Quarterly Average	53 (46-65)	ug/L	N/A	MCL=80	Byproduct of drinking water chlorination
Haloacetic Acids	No	2023 Quarterly Average	26 (21-37)	ug/L	N/A	MCL=60	Byproduct of drinking water chlorination

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.

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

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).

Maximum Residual Disinfection Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.

[§] Perfluorinated and Polyflourinated Alkyl Acids are new contaminants that we were required to test for quarterly beginning in 2021. These contaminants include industrial chemicals found in many consumer products. The highest detected levels and date sampled are listed.

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 New York State requirements. We are required to present the following information on lead in drinking water:

Lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Village of Lyndonville is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact **Devan Freeman, Superintendent of Public Works at (585) 765-9312**. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at *http://www.epa.gov/safewater/lead*.

INFORMATION ON FLUORIDE ADDITION:
Our system is one of the many water systems in New York State that provides drinking water with a controlled, low level of fluoride for consumer dental health protection. According to the United States Center for Disease control, fluoride is very effective in preventing cavities when present in drinking water at a properly controlled level. To ensure that the fluoride supplement in your water provides optimal dental protection, the Village of Lyndonville monitors fluoride on a daily basis to make sure fluoride is maintained at a target level of 0.7 mg/l. During 2023 monitoring showed fluoride levels were within 0.1 mg/l of the target level 85% of the time at 0.6-0.9 mg/l. None of the monitoring results showed fluoride at levels that approach the 2.2 mg/l MCL for fluoride.

IS OUR WATER SYSTEMS MEETING OTHER RULES THAT GOVERN OPERATIONS?
The Village of Lyndonville and Town of Yates are required to monitor your drinking water for specific contaminants on a regular basis as an indicator of whether or not your drinking water meets prescribed health standards. During 2023, our systems were 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 demand, 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 purify and pump water and the need to construct costly new pumping systems and water towers;
- 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 firefighting 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. The Lyndonville water department is available by appointment to assist in the detection of leaks by calling (585-765-9312).

Source Water Assessment Program (SWAP)

The NYS DOH has evaluated the Lyndonville water system's susceptibility to contamination under the 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 source water contamination. Elevated susceptibility ratings do not mean that source water contamination has or will occur for this water system. The Lyndonville water system provides treatment and monitoring to ensure the water delivered to consumers meet 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 is based on the analysis of the contaminant inventory compiled for the drainage area deemed most likely to impact drinking water quality at the Lyndonville water 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 elevated potential for protozoa, DBP precursors, and pesticides contamination. While there are some facilities present, permitted discharges do not likely represent an important threat to source water quality based on their density in the assessment area. There are no noteworthy contamination threats associated with other discrete contaminant sources. A complete copy of the Lyndonville water systems SWAP is available at the Village Clerks office, 2 South Main Street.

SYSTEM IMPROVEMENTS

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. The operation and maintenance programs are critical in maintaining the quality of finished water. In 2023 Lyndonville replaced the mixer in the water tower and began installing new radio read water meters. Lyndonville/Yates did routine maintenance on valves and hydrants.

CLOSING

The Village of Lyndonville and the Town of Yates are proud to continue providing you with clean, quality water. Please call the Village at (585)765-9312 or the Town at (585)765-9735 if you have any questions. A copy of this report is available for those with internet access at: https://villageoflyndonville.com or https://townofyates.org.

REMEMBER: EVERY DROP COUNTS!