

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

2021 Annual Water Quality Report

Annual Drinking Water Quality Report for 2021

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 2021. 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 **Terry Woodworth, Water Superintendent 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 Water 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 822 service connections. The total water produced by Lyndonville in 2021 was 83,771,000 gallons for an average daily production of 229,000 gallons. The highest output for a single day was 355,000 gallons. Approximately 93% of the total water produced by Lyndonville and 92% of 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 $2.32 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 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.

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 trihalomenthanes, haloacetic acids, synthetic organic compounds and radiologicals. 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	2021 Average	1.2 (0.9-1.7)	mg/L	N/A	MRDL	Drinking water disinfection
Fluoride	No	2021 Average	0.8 (0.2-1.0)	mg/L	N/A	MCL=2.2	Erosion of natural deposits; Drinking water additive
Barium	No	2021	0.021	mg/L	2	MCL=2	Discharge of drilling wastes; Erosion of natural deposits.
Copper 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 lead and copper values detected at your water system. In this case, ten samples were collected at various sites in the distribution system and the 90th percentile value was the ninth highest value. The action levels for both lead and copper were not exceeded.	No	2021	.180	mg/L	1.3	AL=1.3	Corrosion of copper pipes; Erosion of natural deposits

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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
Lead 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 lead and copper values detected at your water system. In this case, ten samples were collected at various sites in the distribution system and the 90th percentile value was the ninth highest value. The action levels for both lead and copper were not exceeded.	No	2021	.0048	mg/L	0	AL=0.015	Corrosion of household plumbing; Erosion of natural deposits
Nitrate	No	2021	0.48	mg/L	10	MCL=10.0	Runoff from fertilizer, septic tank leaching, Erosion of natural deposits

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Entry point 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 0.04 NTU. The levels recorded were well below the acceptable range and did not constitute a treatment technique violation. Turbidity	No	2021	0.02 (0.01-0.04)	NTU	N/A	MCL=1.0	Soil Runoff
Distribution Turbidity 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 0.04 NTU. The levels recorded were well below the acceptable range and did not constitute a treatment technique violation.	No	2021	0.02 (0.01-0.04)	NTU	N/A	MCL=1.0	Soil Runoff

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
Lyndonville Disinfection Byproducts							
Total Trihalomethanes The Village of Lyndonville is on reduced monitoring for TTHMs and HAA5s. Samples were collected in August of 2021. The Town of Yates samples were collected quarterly in 2021.	No	2021 Annual Average	38 (38)	ug/L	N/A	MCL=80	Byproduct of drinking water chlorination
Haloacetic acids The Village of Lyndonville is on reduced monitoring for TTHMs and HAA5s. Samples were collected in August of 2021. The Town of Yates samples were collected quarterly in 2021.	No	2021 Annual Average	17 (17)	ug/L	N/A	MCL= 60	Byproduct of drinking water chlorination
Perfluorinated and Polyflourinated Alkyl Acids							
Perfluorobutanoic Acid (PFBA) Perfluorinated and Polyflourinated Alkyl Acids are new contaminants that we were required to test for quarterly in 2021. These contaminanats include industrial chemicals found in many consumer products. The highest detected levels and date sampled are recorded.	No	12/01/2021	3.2	ng/l	N/A	MCL = 10 ng/L	Industrial chemical found in many consumer products

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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
Perfluorooctanesulfonic Acid (PFOS) Perfluorinated and Polyflourinated Alkyl Acids are new contaminants that we were required to test for quarterly in 2021. These contaminanats include industrial chemicals found in many consumer products. The highest detected levels and date sampled are recorded.	No	12/01/2021	3.0	ng/l	N/A	MCL = 10 ng/L	Industrial chemical found in many consumer products
Perfluorooctanoic Acid (PFOA) Perfluorinated and Polyflourinated Alkyl Acids are new contaminants that we were required to test for quarterly in 2021. These contaminanats include industrial chemicals found in many consumer products. The highest detected levels and date sampled are recorded.	No	10/07/2021	2.4	ng/l	N/A	MCL = 10 ng/L	Industrial chemical found in many consumer products
Perfluoropentanoic Acid (PFPeA) Perfluorinated and Polyflourinated Alkyl Acids are new contaminants that we were required to test for quarterly in 2021. These contaminanats include industrial chemicals found in many consumer products. The highest detected levels and date sampled are recorded.	No	12/01/2021	3.06	ng/l	N/A	MCL = 10 ng/L	Industrial chemical found in many consumer products

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
Perfluorobutanesulfonic Acid (PFBS) Perfluorinated and Polyflourinated Alkyl Acids are new contaminants that we were required to test for quarterly in 2021. These contaminanats include industrial chemicals found in many consumer products. The highest detected levels and date sampled are recorded.	No	12/01/2021	1.19	ng/l	N/A	MCL = 10 ng/L	Industrial chemical found in many consumer products
Perfluorohexanoic Acid (PFHxA) Perfluorinated and Polyflourinated Alkyl Acids are new contaminants that we were required to test for quarterly in 2021. These contaminanats include industrial chemicals found in many consumer products. The highest detected levels and date sampled are recorded.	No	12/01/2021	3.06	ng/l	N/A	MCL = 10 ng/L	Industrial chemical found in many consumer products
Perfluoroheptanoic Acid (PFHpA) Perfluorinated and Polyflourinated Alkyl Acids are new contaminants that we were required to test for quarterly in 2021. These contaminanats include industrial chemicals found in many consumer products. The highest detected levels and date sampled are recorded.	No	12/01/2021	1.99	ng/l	N/A	MCL = 10 ng/L	Industrial chemical found in many consumer products

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
Perfluorohexanesulfonic Acid (PFHxS) Perfluorinated and Polyflourinated Alkyl Acids are new contaminants that we were required to test for quarterly in 2021. These contaminanats include industrial chemicals found in many consumer products. The highest detected levels and date sampled are recorded.	No	12/01/2021	1.26	ng/l	N/A	MCL = 10 ng/L	Industrial chemical found in many consumer products
Yates #1 Disinfection Byproducts							
Total Trihalomethanes	No	2021 Quarterly Average	42 (31-50)	ug/L	N/A	MCL=80	Byproduct of drinking water chlorination
Haloacetic Acids	No	2021 Quarterly Average	19 (14-22)	ug/L	N/A	MCL=60	Byproduct of drinking water chlorination

NOTES:

1. 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 lead and copper values detected at your water system. In this case, ten samples were collected at various sites in the distribution system and the 90th percentile value was the ninth highest value. The action levels for both lead and copper were not exceeded.
2. 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 0.04 NTU. The levels recorded were well below the acceptable range and did not constitute a treatment technique violation.
3. The Village of Lyndonville is on reduced monitoring for TTHMs and HAA5s. Samples were collected in August of 2021. The Town of Yates samples were collected quarterly in 2021.
4. Perfluorinated and Polyflourinated Alkyl Acids are new contaminants that we were required to test for quarterly in 2021. These contaminanats include industrial chemicals found in many consumer products. The highest detected levels and date sampled are recorded.

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.

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

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.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the tables, our systems had no violations in 2021. We're proud that your drinking water meets or exceeds all federal and state requirements for all of the other listed contaminants. We have learned through our monitoring and testing that some contaminants have been detected. However, these contaminants were detected below the level allowed by the State.

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 Lyndonville and Town of Yates are 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.

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. Since most of the drinking water produced in the United States is now fluoridated and we also take in some amount of fluoride from food and beverages that are prepared with that water, the US Department of Human and Health services, and the Environmental Protection Agency in 2011 lowered the optimal level of fluoride in drinking water to 0.7 mg/L from the previous optimal range of 0.8 to 1.2 mg/L (parts per million). To ensure that the fluoride supplement in your water provides optimal dental protection, the State Department of Health requires that we monitor fluoride on a daily basis. 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 2021, our systems did not exceed the MCL for total coliform.

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, 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 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.
- 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 (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. The operation and maintenance programs are critical in maintaining the quality of finished water. In 2021 Lyndonville installed two new 6" check valves at the water plant. 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: Village of Lyndonville.com or Town of Yates.org.

REMEMBER: EVERY DROP COUNTS!