Annual Drinking Water Quality Report for 2024
Willsboro Water District
5 Farrell Rd
Willsboro, New York 12996
(Public Water Supply ID#1500299)

INTRODUCTION

To comply with State regulations, the Willsboro Water District, 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 Pat McCauliffe, Water Operator, at (518) 963-8668. If you want to learn more, please attend any of our regularly scheduled town board meetings. The meetings are held the second Wednesday of every month at 6:30 p.m. in the Town Hall.

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 concentration 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 drinking water source is surface water drawn from Lake Champlain. The main drinking water intake is a 14-inch pipe that extends 2,000 feet into Willsboro Bay. Water is pumped through four pressure diatomaceous earth filters. The water is disinfected with a sodium hypochlorite solution at the treatment plant. A corrosion control chemical (zinc orthophosphate) is also added to the water at the treatment plant to control the levels and lead and copper in the water delivered to our users. The facility is capable of pumping, filtering, and disinfecting 650 gallons per minute during routine operations. Our system serves approximately 3,280 individuals through 1,315 service connections.

FACTS AND FIGURES

Our water system serves approximately 3,280 individuals through 1315 service connections. The amount of water produced in 2024 was 129,310,000 gallons with an average of 352,841 gallons per day. The maximum day water use was on July 21st and was 590,000 gallons. The amount of water that was lost from the system (treated, but not delivered) due to flushing of water mains, fire demand, and leaks was 1,500,000 gallons. Last year water customers paid $2.34 per 1,000 gallons.

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 contaminants, gross alpha, nitrate, lead and copper, volatile organic contaminants, and synthetic organic compounds, including PFAS and 1,4-dioxane. 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.

In 2023, the Willsboro Water District collected Unregulated Contaminant Monitoring Rule (UCMR) samples in conjunction with the US Environmental Protection Agency. Samples were collected quarterly and analyzed for PFAS chemicals and lithium. All sample results were below detection limits.

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 New York State Health Department at (518) 891-1800.

Table of Detected Contaminants

Contaminant	Violation Yes/No	Date of Sample	Level Detected	Unit Measure-ment	MCLG	Regulatory Limit	Likely Source of Contamination
Microbiological Contaminants							
Turbidity[1]	No	4/8/2024	0.846	NTU	n/a	<5 NTU (TT)	Soil Runoff
Turbidity[1]	No	2024	100%	NTU	n/a	100% of samples < 1.0 NTU (TT)	Soil Runoff
Inorganic Contaminants							

Table of Detected Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected	Unit Measure-ment	MCLG	Regulatory Limit	Likely Source of Contamination
Lead	No	2023	0.0024[2] ND-0.044[3]	mg/L	0	0.015 (AL)	Corrosion of household plumbing systems.
Copper	No	2023	0.34[2] 0.059-0.66[3]	mg/L	1.3	1.3 (AL)	Corrosion of household plumbing systems.
Chloride	No	2019	18	mg/L	n/a	250 (MCL)	Naturally occurring or indicative of road salt contamination
Zinc	No	2019	0.063	mg/L	n/a	5 (MCL)	Naturally occurring; mining wastes
Sodium	No	2022	13	mg/L	n/a	See note 6	Naturally occurring; Road salt; Water softeners; Animal waste.
Nitrate	No	2024	ND	mg/L	10	10 (MCL)	Runoff from fertilizer use; leaching from septic tanks, sewage, erosion of natural deposits.
Fluoride	No	2023	0.2	mg/L	n/a	2.2(MCL)	Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Barium	No	2023	0.00631	mg/L	2	2 (MCL)	Erosion of natural deposits.
Synthetic Organic Contaminants							
Perfluorooctanoic acid (PFOA)	No	2024	1.43	ng/l	n/a	10 (MCL)	Released into the environment from widespread use in commercial and industrial applications.
Perfluorooctane sulfonic acid (PFOS)	No	2024	1.1	ng/l	n/a	10 (MCL)	Released into the environment from widespread use in commercial and industrial applications.
Stage 2 Disinfection Byproducts							
Total Trihalomethanes (TTHMs)	No	2024	76.8[4] 60.1 – 102.0[5]	ug/L	n/a	80(MCL)	By-products of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains measurable amounts of organic matter.
Haloacetic Acids (HAA5)	Yes	2024	57.5[4] 49.2 – 64.0[5]	ug/L	n/a	60(MCL)	By-products of drinking water chlorination needed to kill harmful organisms.

Notes:

1 – Turbidity is a measure of the clarity of the water. We test it because it is a good indicator of the effectiveness of our filtration system. In 2022, our highest single turbidity measurement for the year occurred on 04/08/2024 (0.846 NTU). State regulations require that turbidity must not exceed 5 NTU and that 95% of the turbidity samples collected must measure below 1.0 NTU. All of the measurements collected last year were below 1.0 NTU.

2 - The level presented represents the 90th percentile of the 10 sites tested in 2023. 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 our water system and the 90th percentile value was the second highest value. The action level for copper was not exceeded at any of the sites tested. The action level for lead was exceeded at one location.

3- The level presented represents the range of the 10 samples collected in 2023.

4 – The value represents the highest Locational Running Annual Average of the quarterly samples collected.

5 – The values represent the range of the quarterly samples collected.

6 - Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets.

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 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).

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

EPA Test Method 533 is used to measure PFOA and PFOS which are regulated perfluoroalkyl analytes with an MCL level of 10 nanograms per liter (ng/L) or 10 parts of liquid per 1 trillion parts of liquid. As part of EPA Test Method 533 a total of 25 analytes are also measured as part of that test. Unregulated perfluoroalkyl analytes that were analyzed in our water samples and had detectable levels are shown in the Unregulated Perfluoroalkyl Substances table provided below.

Unregulated Perfluoroalkyl Substances MCL level for each Unregulated PFAS Substance = 50,000 ng/L					
Contaminant	**Violation (Yes/No)**	**Date of Sample**	**Level Detected**	**Unit Measurement**	**MCGL or Health Advisory Level[1,2]**
Perfluoroheptanoic Acid (PFHPA)	No	2024	0.842	ng/L	NA
Perfluorohexanoic Acid (PFHXA)	No	2024	0.806	ng/L	NA
Perfluorobutanoic Acid (PFBA)	No	2024	2.46	ng/L	NA
Perfluorooctane Sulfonic Acid 6:2 FTS	No	2024	22	ng/L	NA
Perfluoropentanoic Acid (PFPEA)	No	2024	0.886	ng/L	NA

1 USEPA Health Advisory Levels identify the concentration of a contaminant in drinking water at which adverse health effects and/or aesthetic effects are not anticipated to occur over specific exposure durations. Health Advisory Levels are not to be construed as legally enforceable federal standards and are subject to change as new information becomes available.
2 All perfluoroalkyl substances, besides PFOA and PFOS, are considered Unspecified Organic Contaminants (UOC) which have an MCL = 50,000 ng/L.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the tables, our system had one water quality or monitoring violation. The Willsboro Water District received a violation for exceeding the MCL for the disinfection byproduct Haloacetic Acids (HAA5) during the first and second quarters of 2024, and public notification was sent out to all customers, as required. Our system is now back in compliance and Haloacetic Acid concentrations have been below the Maximum Contaminant Level set by New York State and the EPA since August 2024.

We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below the level allowed by the State. Our lead samples showed that one sample location was above the Action Level and the owners of this residence were notified, as required. We are required to provide the following information regarding lead: Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. The Willsboro Water District is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure the filter is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from water. Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, doing laundry or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for a longer period. If you are concerned about lead in your water and wish to have your water tested, contact the Willsboro Water Superintendent – Pat McCauliffe at (518) 963-8668. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at *https://www.epa.gov/safewater/lead*.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

Last year, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements, including the preparation of a lead service line inventory. This inventory is publicly available and can be accessed at the Willsboro Town Office.

INFORMATION ON LEAD SERVICE LINE INVENTORY

The Town of Willsboro recently completed a Lead Service Line Inventory (LSLI) of the Willsboro Water District distribution system and submitted it to the NYS Department of Health on October 16, 2024, as required. A Lead Service Line (LSL) is defined as any portion of pipe that is made of lead which connects the water main to the building inlet. An LSL may be owned by the water system, owned by the property owner, or both. The inventory includes both potable and non-potable service lines within a system. In accordance with the federal Lead and Copper Rule Revisions (LCRR) our system has prepared a lead service line inventory and has made it publicly accessible at the Willsboro Town Office. The LSLI is an ongoing effort and will be updated annually. Our system has a total of 1,315 service connections. We have identified 848 of these service lines. We have not identified any lead service lines or galvanized service lines requiring replacement to date. There are still 467 service lines that are of unknown material. If you have not already done so, please contact the Town to let us know if your service line is either lead, galvanized pipe, copper, or plastic. If you need help making this determination, please contact the Town directly.

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).

SOURCE WATER ASSESSMENT SUMMARY

The NYS Dept. of Health completed a source water assessment for this system based on available information.
The Lake Champlain watershed is exceptionally large and too big for a detailed evaluation in the SWAP. General drinking water concerns for public water supplies which use this source include: storm generated turbidity, eutrophication (excessive nutrients and algae) wastewater, toxic sediments, toxic algae and problems associated with exotic species (e.g. zebra mussels- intake clogging). 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 slight to moderate susceptibility to contamination for this source of drinking water. Land cover and its associated activities within the assessment area does not increase the potential for contamination. While there are some facilities present, permitted discharges to groundwater do not likely represent an important threat to source water quality. There are no likely contamination threats associated with other discrete contaminant sources, even though some facilities were found in low densities. Additional sources of potential contamination include septic systems.

The health department will use this information to direct future source water protection activities. These may include water quality monitoring, resource management, planning, and education programs.

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 an 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.