



Annual Drinking Water Quality Report for 2023

STAR LAKE WATER DISTRICT

Town of Fine

4078 State Hwy 3

Star Lake, NY 13690

Public Water Supply ID# NY4404398

INTRODUCTION

To comply with State regulations, the Star Lake 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 contaminate 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 Water Superintendent Mark Hall at (315) 848-4079. 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. Town Board meetings are held at 6:30 pm in the Town Municipal Office Building on the second Wednesday of each month.

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 source is surface water drawn from Post Office Bay in Star Lake. The water is filtered and chemically disinfected prior to distribution. The system was expanded in 2018 to include the south side of Star Lake, the former Town of Clifton Woodhaven water district adding approximately 58 connections and was again expanded in 2019 to include Newton Falls water district adding approximately 115 connections.



The NYS DOH has evaluated our 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.

This assessment found a 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. There are no noteworthy contamination threats associated with other discrete contamination sources. Additional sources of potential contamination include: private septic and transportation routes.

The dominant considerations for defining natural sensitivity ratings for small lakes are their size and lack of high velocity and directional water flows. These water bodies are assigned medium natural sensitivity ratings for the microbial, other chemical, and phosphorous contaminate categories. This is due to the tendency for microbial to undergo some inactivation or sedimentation, and these water bodies tend to respond moderately to phosphorus problems with their watershed. The volatile nature of most organic chemicals makes these categories rate low for small lakes.

FACTS AND FIGURES

Our water system serves approximately 1200 people through approximately 600 service connections in two towns. The total water pumped for the water district in 2023 was 39,698,163 gallons. The daily average of pumped and treated water into the distribution system was approximately 109,000 gallons per day. Our highest single day of water pumped was 181,151 gallons. Our NYS DEC Water Withdrawal Permit authorizes an average daily withdrawal of up to 195,000 gallons per day. The aquifer recharge rate for Star Lake is calculated to be over 600,000 gallons per day. An additional 1,658,535 gallons of untreated water was pumped directly to our municipal golf course irrigation system that is permitted for an additional 10,000 gallons per day. In addition to water delivered to customers, additional water is used to flush mains, to fight fires and is lost to leakage. In 2023, residential water users were charged \$540.00 for up to 60,000 gallons of water use. This equates to approximately \$9.00 per 1,000 gallons of water provided.

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 table presented 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, is 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 Office in Canton at (315) 386-1040.



Radiological Contaminants

Table of Detected Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected Avg/Max (Range)	Unit Measure -ment	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Combined radium – 226 and 228	NO	12/7/23	ND	pCi/L	0	5 ¹	Erosion of natural deposits
228	NO	12/7/23	ND				
Gross alpha activity (including radium – 226 but excluding radon and uranium)	NO	12/7/23	ND	pCi/L	0	15 ¹	Erosion of natural deposits

Inorganics

Contaminant	Violation Yes/No	Date of Sample	Level Detected Avg/Max (Range)	Unit Measure -ment	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Nitrate	NO	8/15/23	<.02	mg/l	10	MCL = 10 mg/l	Runoff from fertilizer use; Leaching from Septic Tanks, sewage, Erosion of natural deposits.
Barium	NO	12/7/23	0.010	mg/l	2	MCL=2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Lead	NO	9/29/23	0.0020 (<.0010-.0020)	ug/l	15	AL=15 ²	Corrosion of household plumbing systems; Erosion of natural deposits
Copper	NO	9/29/23	0.038 (0.044-0.0075)	mg/l	1.3	AL = 1.3 ³	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Fluoride	NO	12/7/23	<0.1	mg/l	2.2	NA	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.

¹ A MCL violation occurs when the annual composite of four quarterly samples or the average of the analysis of four quarterly samples exceeds the MCL.



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 lead values detected at your water system. The action level was not exceeded at any of the sites tested. 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. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).

³ 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.

⁴ Water containing more than 20 mg/L of sodium should not be used for drinking by people on a severely restricted sodium diet. Water containing more than 270 mg/L of sodium should not be used for drinking by people on a moderately restricted sodium diet.

Disinfection Byproducts

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
Haloacetic Acids (HAA5'S -)	NO	Quarterly	33.38 23-45	ug/l	N/A	MCL=60	By-product of drinking water chlorination
Total Trihalomethanes (TTHMs - chloroform, bromodichloromethane, dibromochloromethane, and bromoform)	NO	Quarterly	53.63 29-85	ug/l	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.

Microbiological

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
Total Coliform	No	Monthly	Negative	N/A	N/A	MCL=2 or more positive samples in 1 month ⁷	Naturally Present in the environment.

⁷ A violation occurs at systems collecting less than 40 samples per month when two or more samples are total coliform positive.



Turbidity

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	No	Daily	.02-0.10	NTU	N/A	0.30 NTU	Naturally Present in the environment.

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 multiple days as was recorded at (0.10 NTU). State regulations require that turbidity must always be below 0.30 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 0.30 NTU, which we achieved.

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.

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).

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



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.

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 line lines and home plumbing. The Star Lake Water District 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 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, 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 at www.epa.gov/safewater/lead.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2023, 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 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. Remember to notify the water department in plenty of time if you need your service turned on or off for the season. You also might consider turning the water valve off inside your home if you leave your home unattended for an extended period of time. Please call our office if you have questions.

For a full-size report, please visit the town website "afineadironacktown.org" or stop and pick one up at the Municipal Office Building.