

Annual Drinking Water Quality Report for 2018

Village of Watkins Glen

303 North Franklin St.

Watkins Glen, NY 14891

Public Water Supply Watkins Glen ID#NY4801188,

Town of Reading #1, #3 ID#NY4801186 & #2 ID#NY4830034 and

Town of Dix ID#NY4830037

INTRODUCTION

To comply with State regulations, **The Village of Watkins Glen, Town of Reading and the Town of Dix** 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. In 2018 we experienced a boil water notice for the village in April for a water main break, a violation for the village and all districts a boil water notice was issued in August for exceeding turbidity limits due to severe flooding. 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 **Mr. Martin Pierce, Water Department Supervisor at (607) 535-6914 or 535- 2736 during regular business hours.** We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled Watkins Glen Village board meetings. The meetings are held normally the first and third Tuesday of each month at 6:00 PM at the Municipal Building at 303 N. Franklin Street. The Town of Dix board meetings are held on the Forth Monday of each month at 7:00 PM at 304 7th Street. The Town of Reading meetings are held on the second Wednesday of each month at 7:30 PM at 3914 Route 28.

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 Health Department 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 EPA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

The revised Source Water Assessment report was not available at the time of printing. This will be included in the Annual water report when the New York Department of Health completes it.

Our water source is surface water drawn from Seneca Lake, which is truly an excellent and clean source. During 2018 Our system did not experience any restriction of our water source. The water is collected at the lake and pumped to the filtration plant located on Steuben Street. It is then put through the filtering process that includes treatment with Alum and Soda Ash and disinfection with Chlorine. The water is then put through flocculation then filtration that include four reinforced concrete filter cells each with a filter area of 100 square feet designed for an approved filtration rate of 3 gallons per minute per square foot. Each filter cell contains thirty inches of dual media comprised of eighteen inches of anthracite and twelve inches of sand on a General Filter Co. multi-crete under drain system that includes media restraining nozzles.

The Village of Watkins Glen system serves a population of 2149 through 943 metered service connections. The average daily usage for the year 2018 was 452,546 gallons a day and total usage for the year was 165,179,000 gallons.

The Town of Reading district #1 - #3 and #2 serves a population of 86 through 38 metered service connections. The average daily usage for the year 2018 was 4,230 gallons a day and the total usage for the year was 1,544,100 gallons. The Town of Dix serves a population of 201 through 82 metered service connections in their water system. The average daily usage for the year 2018 was 42,517 a day and the total usage for the year was 15,519,000 gallons. The total gallons drawn from Seneca Lake for all districts was 188,471,800. These districts used 182,242,100. This leaves 6,229,700 gallons unaccounted for (3.3%). This water was lost through leaks, fire calls and sewer and hydrant flushing. Our largest single day withdrawal was 957,900 on January 19. The average cost for 1000 gallons of water is \$6.01.

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, total haloacetic acids, radiological contaminants and synthetic organic compounds. 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.

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 Department of Health-Hornell Office, at (607) 324-8371.**

Table of Detected Contaminants							
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 *1	Yes	Daily	Avg .077 Avg.Range .025 – 19.414	NTU	NA	AL= .3 NTU	Soil run-off
Chlorine Watkins Glen distribution system	No	5 / week	Avg 1.08 Range .28 – 2.09	Mg/l	MRDLG = 4.00	MRDL= 4.00	Added for disinfection
Chlorine Watkins Glen (entry point) Chlorine = Cl2	No	Daily	Avg: 1.18 Range:.36 – 2.16	Mg/l	MRDLG = 4.00	MRDL = 4.00	Added for Disinfection
CL2 Reading 1-3	No	Weekly	Avg: .59 Range .12 – 1.22	Mg/l	MRDLG = 4.00	MRDL = 4.00	Added for Disinfection
CL2 Reading	No	Weekly	Avg: .72 Range: .28 – 1.17	Mg/l	MRDLG = 4.00	MRDL = 4.00	Added for Disinfection
CL2 Town of Dix Distribution system	No	Daily	Avg: .78 Range: .05 – 2.3	Mg/l	MRDLG = 4.00	MRDL = 4.00	Added for Disinfection
Barium	No	4/10/18	27.2	Ug/l	2000	MCL=2000	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Village of Watkins Glen, Town of Reading & Dix Copper *2	No	8/16	Highest Avg.=73.7 Range 19-160	Ug/l	1300	AL=1300	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Village of Watkins Glen, Town of Reading & Dix Lead *3	No	8\16	Highest AVG. 1.44 Range 0-2.6	Ug/l	0	AL=15	Corrosion of household plumbing systems; Erosion of natural deposits.
Village of Watkins Glen TTHM [Total trihalomethanes] *6	No	2/18 5/18 8/18 11/18	Highest Avg.=47.6 Range 30.7 – 58.8	Ug/l	0	MCL=80	By-product of drinking water chlorination
Town of Dix TTHM [Total trihalomethanes] *6	Yes *9	2/18 5/18 8/18 11/18	Highest Avg.=98.8 Range 80.2 - 110	Ug/l	0	MCL=80	By-product of drinking water chlorination
Town of Reading #1 TTHM [Total trihalomethanes] *6	Yes	2/18 5/18 8/18 11/18	Avg. 72.6 Range 45 - 110	Ug/l	0	MCL=80	By-product of drinking water chlorination
Town of Reading #2 THM[Total trihalomethanes *6]	No	2/18 5/18 8/18 11/18	Avg. 55.1 Range 28.9 – 72.5	Ug/l	0	MCL=80	By-product of drinking water chlorination

Town of Reading #1 HAA [Total haloacetic acids]	No	2/18 5/18 8/18 11/18	Avg. 20.5 Range 17 - 22	Ug/l	0	MCL=60	By-product of drinking water chlorination
Town of Reading #2 HAA [Total haloacetic acids]	No	2/18 5/18 8/18 11/18	Avg. 20.2 Range 11 - 25	Ug/l	0	MCL=60	By-product of drinking water chlorination
Nitrate	No	4/18	.478	Mg/l	10	MCL= 10	Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits.
Sodium	No	4/18	73.3	Mg/l			
Chloride	No	5/18	125	Mg/l	250	MCL = 250	
Village of Watkins Glen HAAs [Total Haloacetic Acids]	No	2/18 5/18 8/18 11/18	Highest Avg.= 18.8 Range 14 - 23	Ug/l	0	MCL=60	By-Product of drinking water chlorination.
Town of Dix HAAs [Total Haloacetic Acids]	No	2/18 5/18 8/18 11/18	Highest Avg.=20.9 Range 19.2 - 22	Ug/l	0	MCL=60	By-Product of drinking water chlorination.

The Town of Dix has been in violation since August 2014 for Trihalomethanes. We are working on lowering the levels by flushing and keeping the water tanks at lower levels. The Town of Dix will be installing an aeration system May/June 2019 to correct this problem.

***Notes:**

1. 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 on 8/16/18, (19.414 NTU) State regulations require that turbidity must always be below 1 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 0.3 NTU.
2. The copper 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. In this case, ten samples were collected at the Village of Watkins Glen Town of Reading & Dix water systems and the 90th percentile value was 73.7 ug/l. The action level for copper was not exceeded at any of the sites tested.
3. The Lead 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 the Village of Watkins Glen Town of Reading & Dix water systems. In this case, ten samples were collected at your water system and the 90th percentile value was 1.44 ug/l. The action level for lead was not exceeded at any of the sites tested.
5. Total Haloacetic Acids (HAA's - mono-,di-, and trichloroacetic acid, and mono- and di-bromoacetic acid)
6. Total Trihalomethanes (TTHM's - chloroform, bromodichloromethane, , dibromochloromethane, and bromoform)
7. The State considers 50 pCi/L to be level of concern for beta particles. If beta particles are detected above 50pCi/l, the water supplier must determine the actual radioactive constituents present in the present in the water to calculate the dose exposure level in mrem/year, and must report both the detected level and MCL as mrem/year.
8. Arsenic: NYS and EPA have promulgated a drinking water arsenic standard of 10 parts per billion. While your drinking water meets the standard for arsenic, it does contain low levels of arsenic. The standard balances the current understanding of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.
9. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

Definitions:

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

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 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.

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).

Nephelometric Turbidity Unit (NTU): A measure of the clarity of water. Turbidity in excess of 1 NTU is just noticeable to the average person.

Non-Detects(ND): Laboratory analysis indicates that the constituent is not present.

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

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

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system uncovered some problems this year. In August, the monthly performance standard and maximum contaminate level (MCL) for turbidity were exceeded. This occurred between August 16 and August 24. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches. We are working to prevent further violations by adding valving and automation to the treatment plant. In addition the maximum contaminate level for trihalomethanes was exceeded in Reading Water District #1-3 (August 2018) and in the Town of Dix (Feb, May, Aug, and Nov. 2018). The Town of Dix has been in violation since August 2014 for total trihalomethanes. We are working on lowering the levels by flushing and keeping water tanks at lower levels. An aeration treatment system designed to reduce total trihalomethanes is being installed in the Town of Dix in 2019. Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

In 2018, the water facility received an administrative order from the Department of Health on September 21, mandating improvements to the water treatment plant and its' operation. Some items addressed in this administrative order include additional alarming, valving, data acquisition, equipment, and changes to sampling locations for improved monitoring. The Town of Dix also received an administrative order from the DOH to make improvements to its system on January 30. Some items addressed in this order are emergency power supplies to all pump stations, replacements of outdated pumping equipment and back-up pumping. The Town of Dix and village have contracted an engineering firm to work towards addressing the concerns identified in this order. The Town of Dix improvements should be completed by the end of August 2019.

GENERAL INFORMATION ON LEAD:

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 Watkins Glen 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?

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. Immune-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 or shaving.
- ◆ 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.

CLOSING:

Thank you for allowing us to continue to provide your family with quality drinking water this year. We ask that all our customers help us protect our water sources, which are the heart of our community and our way of life. Please call our office if you have questions.