

Annual Drinking Water Quality Report for 2017
Village of Stillwater
1 School Street Stillwater, New York 12170
Public Water Supply ID# 4500171

INTRODUCTION

To comply with State regulations, the Village of Stillwater 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. This report is a snapshot of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to New York State standards. Our constant goal is and always has been, to provide to you a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and to protect our water resource.

If you have any questions concerning this report or concerning your drinking water, please contact: Village of Stillwater PO Box 507, Stillwater, N.Y. 12170 at (518) 664-3298. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled Village Board meetings. The meetings are held at 7:00 p.m., the third Tuesday of each month at the Village Boardroom on Palmer Street.

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 Departments and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water is purchased from Saratoga County Water Authority (SCWA). The source is the upper Hudson River in Moreau where it is treated by membrane filters, granular activated carbon and disinfected with chlorine. Water flows through a water main to the Luther Forest Technology Park. A 12" transmission main constructed by the Village of Stillwater brings water from the SCWA system to our two storage tanks. The Village of Stillwater has a 488,000-gallon steel storage tank located off Dick Lynch Road and an older 200,000-gallon steel standpipe located near Saratoga Hills Mobile Home Park.

FACTS AND FIGURES

Our water system serves over 1,600 people through 520 service connections within the Village of Stillwater. The total water purchased from the Saratoga County Water Authority in 2017 was 80,374,600 gallons. The daily average of water treated and pumped into the distribution system is 220,204 gallons per day. Our highest monthly average daily water demand was 253,167 gallons in July 2017. The amount of water used includes an accounting of the total annual amount of water delivered to customers in addition to the water that is lost from the system. In 2017, the amount of water delivered was 32,353,909 gallons to customers of the Village of Stillwater, 30,609,179 gallons delivered to customers of the Town of Stillwater and 8,697,000 gallons delivered to residents of Saratoga Hills Mobile Home Park. This leaves an unaccounted total of 8,714,512 gallons. This water was used to flush hydrants and mains three times per year, fight fires and leakage in the system. In 2016, water customers were charged \$4.50 per 1,000 gallons of water for Village residents. The Town of Stillwater was charged \$6.38 per 1,000 gallons and Saratoga Hills Mobile Home Park was charged \$6.38 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 bacteria, lead and copper, orthophosphate, trihalomethanes and haloacetic acids. In addition, the Saratoga County Water Authority tests for turbidity, inorganic compounds, nitrate, nitrate, volatile organic compounds, synthetic organic compounds and radiological contaminants. 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, might 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 Department of Health Glens Falls District Office at (518) 793-3893.

Table of Detected Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit of measure	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Total Coliform Bacteria	No	Monthly	N/A	N/A	0	TT = two or more positive samples	Naturally present in the environment
Turbidity ¹	No	5 per week	0.0 – 0.0	NTU	N/A	Above 5 NTU for monthly average	Corrosion/rust especially during flushing or hydrant use.
Inorganic compounds							
Copper	No	6/15/17 12/12/17	0.171 ² (0.015-0.309) ³ 0.165 ² (0.014-0.799) ³	mg/L	1.3	1.3 (AL)	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead	No No	6/15/17 12/12/17	5.0 ² (ND-133) ³ 3 ² (ND-35.5) ³	ug/L	0	15 (AL)	Corrosion of household plumbing systems; erosion of natural deposits.
Disinfection Byproducts⁶							
Total Trihalomethanes	No	2/08/17 5/10/17 8/09/17 11/30/17	LRAA (Q2) 59.4 ⁴ (30.3-69.2) ³	ug/L	N/A	80 (MCL)	Byproduct of drinking water chlorination
Total Haloacetic Acids	No	2/08/17 5/10/17 8/09/17 11/30/17	LRAA (Q3) 40.1 ⁴ (29.0-53.4) ³	ug/L	N/A	60 (MCL)	Byproduct of drinking water chlorination

1 – Turbidity is a measure of the cloudiness of the water. We monitor turbidity in the distribution system. We test it because it is a good indicator of the effectiveness of our filtration system. Our highest single turbidity measurement for the year was 0 NTU. State regulations require that turbidity must always be below 5 NTU in the distribution system.

2 – The level presented represents the 90th percentile. The first round of samples was collected in June 2017. During this monitoring period, a total of twenty (20) lead and copper samples were collected. The second round of samples was collected in December 2017. Twenty (20) lead and copper samples were collected during this monitoring period. 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, (include number of samples, e.g. ten samples) samples were collected at your water system and the 90th percentile value was the (include what sample had the highest value, e.g. second highest) value (include level detected, e.g. 1.1 mg/l). The action level for copper was not exceeded at any of the sites tested.

3 – This number represents the range of sample results.

4 – This level represents the highest locational running annual average calculated for 2016. The running annual average is calculated by taking the average of the four most recent sample results collected.

**Saratoga County Water Authority
Table of Detected Contaminants**

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TI or AL)	Likely Source of Contamination
Microbiological Contaminants							
Total Coliform Bacteria	No	<i>Monthly</i>	None	<i>Monthly</i>	0	Systems with less than 40 samples per month- two or more samples positive for Total Coliform represents an <u>MCL</u> violation	Naturally present in the environment.
Turbidity (Highest Result -Entry Point)	No	7-21-2017	0.092	NTU	<i>NIA</i>	TT-1.0	Soil Runoff.
Transmission System	No	7-5-2017	0.28	NTU	<i>NIA</i>	TT-5.0	
Total Organic Carbon (TOC)	No	Raw Avg Treated Avg	4.30 1.65	mg/l	<i>NIA</i>	TT	Naturally present in the environment.
Inorganics							
Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TI or AL)	Likely Source of Contamination
Nitrate	No	2/28/2017	0.16	mg/l	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Manganese	No	3-28-2017	3	ug/l	<i>NIA</i>	300	Naturally occurring; Indicative of landfill contamination
Sodium	No	3-28-2017	9.07	mg/l	<i>NIA</i>	270*	Naturally occurring; Road salt; Water softeners; Animal waste.
Chloride	No	3-28-2017	10.8	mg/l	<i>NIA</i>	250	Naturally occurring or indicative of road salt contamination.
Barium	No	3-28-2017	0.005	mg/l	2	2000	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.

Definitions:

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

Locational Running Annual Average (LRAA): The arithmetic average of the results for four consecutive quarters. For disinfection byproducts the MCL and RAA are rounded to the nearest tenth when the results are given in micrograms per liter.

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 a 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.

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).

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

Millirems per year (mrem/yr): A measure of radiation absorbed by the body.

Million Fibers per Liter (MFL): A measure of the presence of asbestos fibers that are longer than 10 micrometers.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system did not have any violations for 2017. We have learned through our monitoring and testing that some constituents have been detected; however, these compounds were detected at levels below New York State and federal requirements. These Maximum Contaminant Levels (MCLs) are set at very stringent levels. To understand the possible health effects for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the prescribed health effect.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. The Village of Stillwater was in compliance with all applicable State drinking water operating, monitoring and reporting requirements.

INFORMATION ON CRYPTOSPORIDIUM

Cryptosporidium is a microbial pathogen found in surface water and groundwater under the influence of surface water. Although filtration removes Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. The Saratoga County Water Authority utilizes membrane filtration technology which removes these contaminants at higher rates than conventional water treatment technologies. During 2017, as part of our routine sampling, eleven samples were collected of untreated Hudson River source water and analyzed for Cryptosporidium oocysts. Of these samples, one showed one oocysts and ten showed no oocysts. Therefore, our testing indicates the presence of Cryptosporidium in our source water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Cryptosporidium may cause cryptosporidiosis, a gastrointestinal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their health care provider regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

INFORMATION ON GIARDIA

Giardia is a microbial pathogen present in varying concentrations in many surface waters and groundwater under the influence of surface water. Giardia is removed/inactivated through a combination of filtration and disinfection or by disinfection. During 2017, as part of our routine sampling, eleven samples were collected of untreated Hudson River source water and analyzed for Giardia cysts. Of these samples, six samples showed a total of six cysts and five samples showed no cysts. Therefore, our testing indicates the presence of Giardia in our source water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Giardia may cause giardiasis, an intestinal illness. The Saratoga County Water Authority utilizes membrane filtration technology which removes these contaminants at higher rates than conventional water treatment technologies. People exposed to Giardia may experience mild or severe diarrhea, or in some instances no symptoms at all. Fever is rarely present. Occasionally, some individuals will have chronic diarrhea over several weeks or a month, with significant weight loss. Giardiasis can be treated with anti-parasitic medication. Individuals with weakened immune systems should consult with their health care providers about what steps would best reduce their risks of becoming infected with Giardiasis. Individuals who think that they may have been exposed to Giardiasis should contact their health care providers immediately. The Giardia parasite is passed in the feces of an infected person or animal and

may contaminate water or food. Person to person transmission may also occur in day care centers or other settings where hand washing practices are poor.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Although our drinking water meets 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 HN/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).

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 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>.

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 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 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.

SOURCE WATER ASSESSMENT

Our drinking water is purchased from the Saratoga County Water Authority, which is derived from the Hudson River in the Town of Moreau, upstream of Fort Edward. Hydrologic characteristics generally make rivers highly sensitive to existing and new sources of nitrate, phosphorus and microbial contamination. Elevated susceptibility ratings do not mean that source water contamination has or will occur for this Public Water System (PWS). This PWS provides treatment and regular monitoring to ensure that the water delivered to consumers meets all applicable standards. Continued vigilance in compliance with water quality protection and pollution prevention programs as well as continued monitoring and enforcement will help to continue to protect our source water quality.

CLOSING

Thank you for allowing us to continue to provide your family with drinking water this year. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future. **Please call our office if you have questions at 518-664-3298.**