

Annual Water Quality Report for 2016
Village of South Glens Falls
46 Saratoga Avenue, South Glens Falls, NY 12803 Public
Water Supply ID Number: NY4500170

INTRODUCTION

To comply with New York State regulations, the Village of South Glens Falls will issue an annual 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 resources. If you have any questions concerning this report or concerning your drinking water please contact: *Mr. John A. Dixon, Jr., Operator in Charge, Village of South Glens Falls, 116-½ Saratoga Avenue, South Glens Falls, NY 12803; Telephone (518) 792-5046 (work), (518) 792-8812 (home)*. We want our valued customers to be informed about their drinking water. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the 1st and 3rd Wednesday of each month, beginning 7:00 PM at the Village Hall located at 46 Saratoga Avenue, South Glens Falls, NY 12803; Telephone (518) 793-1455.

WHERE DOES OUR WATER COME FROM?

The Village is served by 20 underground springs that are located on a hillside above the flood plain of the Hudson River in the southwest corner of the Village. The springs have a yield of approximately 850,000 gallons per day and feed our 600,000 gallon concrete reservoir. Treatment of the spring supply consists of cartridge filtration and chlorination to protect against contamination from harmful bacteria and other organisms. A blended phosphate is added to the water for corrosion control. We also have an interconnection with the Town of Moreau that can be used when needed.

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 NYS DOH and the US EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. NYS DOH and U.S. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health and safety as for public water supplies.

The source water assessment (SWAP) performed by the New York State Health Department has rated our source water as having an elevated susceptibility to microbial contamination, nitrates and industrial contaminants. It should be noted that the SWAP looks at the untreated water only. Our water is treated to minimize the potential sources of contamination. A copy of the full Source Water Assessment is available for review by contacting the Village Office at the number provided in this report.

FACTS AND FIGURES

The Village of South Glens Falls water system serves approximately 3,700 individuals through 1,658 service connections. The total amount of Water produced for the year in the Village was 195,341,000. Our average daily demand during 2016 was 535,181 gallons per day. Our single highest day was 1,034,000 gallons. The lowest water production day was 283,000 gallons. We purchased 742,500 gallons of water from the Town of Moreau between [10/25/16 – 10/27/16]. Village Residential customers are not metered. Current water rates are as follows: *Residential Village Customers - \$125.00 semi-annually (customers are not metered); Commercial Customers - flat rate of \$125.00 semi-annually plus \$2.25 per 1,000 gallons for quantities over 25,000 gallons (commercial customers are metered)*.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

In accordance with State regulations, the Village of South Glens Falls routinely monitors your drinking water for numerous contaminants. We test your drinking water for inorganic contaminants, radiological contaminants, lead and copper, nitrate, volatile organic contaminants, and synthetic organic contaminants. In addition, we test four samples each month for coliform bacteria. The results of this testing are listed in Table I of this report, which lists what contaminants were detected in your drinking water in 2016. The state allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though

representative of the water quality, are more than one year old and is so noted. We purchased water from the Town of Moreau during part of the year. The Town purchases their water from Queensbury and the Saratoga County Water Authority, for which water quality data is presented in Table II and Table III respectively.

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 pose a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791) or the NYS DOH, Office of Public Health (518 793-3893). Information is also available through the US EPA's drinking water website (www.epa.gov/safewater/hfacts.html) and the NYS DOH website (www.health.state.ny.us)

WHAT DOES THIS INFORMATION MEAN?

We have learned through our monitoring and testing that some constituents have been detected; however, these compounds were detected below New York State requirements. Maximum contaminant levels (MCLs) are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink two liters (0.53 gallons) of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATION?

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether your drinking water meets health standards. During 2016, we did not complete all monitoring, and therefore cannot be sure of the quality of your drinking water during that time. We did not sample for synthetic organics, secondary inorganics, nitrate, or third quarter disinfection byproducts. Samples collected in 2017 for these parameters show compliance with the standards. The results are presented in Table I.

INFORMATION ON LEAD

If present, elevated levels of 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 lines and home plumbing. The Village of South Glens Falls 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 or at <http://www.epa.gov/safewater/lead>.

WATER CONSERVATION TIPS

The Village of South Glens Falls encourages water conservation. There are many things you can do to conserve water in your own home. Conservation tips include:

- Only run the dishwasher and clothes washer when there is a full load
- Use water saving showerheads
- Install faucet aerators in the kitchen and the bathroom to reduce the flow from 4 to 2.5 gallons per minute
 - The Village promotes conservation of water by limiting outside water usage. The Village requests that the outside use of water for lawns and gardens be performed on odd/even days, corresponding to your property address. In addition, outside water should be performed between the hours of 6:00 to 9:00 AM and 6:00 to 9:00 PM. • Check faucets, pipes and toilets for leaks and repair all leaks promptly
- Take shorter showers

CAPITAL-IMPROVEMENTS

During 2016, the cast iron water main on Prospect Street was replaced with new 12" PVC and the 14" asbestos cement pipe, located between the storage tank and distribution system, was replaced.

CLOSING

Thank you for allowing us to continue providing your family with clean quality water this year. To maintain a safe and dependable water supply we sometimes need to make improvements that will benefit our customers. You will be informed of system improvements in future Annual Water Quality Reports. We ask that all our customers help us protect our water source, which is the heart of our community. Please call the Village office if you have questions.

Table I
Table of Detected Contaminants in 2016 for the Village of South Glens Falls
Spring Box Source Water

(Note: Some test data shown in the table are from prior years monitoring. Also, some 2017 data is shown.)†

	Violation Yes/No	Date(s) of Sample	Level Detected (Maximum) (Range)	Unit of Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Inorganic Contaminants							
Barium	No	12/20/16	0.016	mg/L	N/A	2 = MCL	Naturally occurring.
Chloride	No	3/15/17	207	mg/L	N/A	250 = MCL	Geology, naturally occurring; and road salt
Copper (At customer's taps)	No	Mar-Jun 2016 Jul-Dec 2016	0.18 ¹ (0.013-0.243) ² 0.202 ¹ (0.013-0.358) ²	mg/L	1.3	1.3 = AL	Corrosion of household plumbing systems and erosion of natural deposits.
Lead (At customer's taps)	No	Mar-Jun 2016 Jul-Dec 2016	6 ¹ (ND-23) ² 2 ¹ (ND-6.8) ²	mg/L	0	15 = AL	Corrosion of household plumbing systems; and erosion of natural deposits.
Iron	No	3/15/17	0.015	mg/l	N/A	0.3=MCL	Naturally occurring.
Nitrate (as Nitrogen)	No	2/23/17	3.92	mg/L	10	10 = MCL	Runoff from fertilizer use; leaching from septic tanks, sewage; and erosion of natural deposits
Sodium ³	No	3/15/17	101	mg/L	N/A	N/A	Naturally occurring and road salt
Sulfate	No	3/15/17	17.1	mg/L	N/A	250 = MCL	Naturally occurring
Zinc	No	3/15/17	0.004	mg/L	N/A	5 = MCL	Naturally occurring
Disinfection Byproducts							
Total Trihalomethanes (TTHMs)	No	Quarterly during 2016	Village Hall 8.2 (average) 6.7-10.7 (range) Chestnut St 6.3 (average) 4.1-9.3 (range)	µg/L	N/A	80 = MCL	Byproduct of drinking water chlorination
Haloacetic Acids (HAA5)	No	Quarterly during 2016	Village Hall 1.9 (average) 1.1-2.3 (range) Chestnut St 2.2 (average) ND-2.2 (range)	µg/L	N/A	60 = MCL	Byproduct of drinking water chlorination
Free Chlorine Residual							
Chlorine Residual	No	Daily Samples	1.24 (average) 0.40-1.34 (range)	mg/L	MRDLG	MRDL	Used in the disinfection and treatment of drinking water
					N/A	4	
Combined Filter Effluent Turbidity (6 filters) and Microbiologicals							
Turbidity ⁴	No	2/17/16	0.233	NTU	N/A	TT=<1 NTU	Soil Runoff
Turbidity ⁴	No	2015	100	%	100%	TT=95% of samples <0.3 NTU	Soil Runoff

**Note:* † All contaminants listed on Table I and tested for in previous years, were not required to be tested for in 2016. Some samples that were required but not collected in 2016 were sampled for in early 2017.

1 - The level presented represents the 90th percentile of the 40 sites tested during each 6-month monitoring period in **2016**. A percentile is a value on a scale of 1 to 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 or copper values detected at your water system.

2 - The level presented represents the range of results. One site exceeded the action level for lead during the January-June monitoring period. No sites exceeded the copper action level in either round of sampling.

3 - Water containing more than **20 mg/L** of sodium should not be consumed by persons on severely restricted sodium diets.

4 - Turbidity is a measure of the cloudiness of the water. We measure it because it is a good indicator of the effectiveness of our filtration system. Our highest single entry point turbidity measurement for the year occurred on 2/17/2016 (0.233 NTU). State regulations require that entry point turbidity must always be below 1.0 NTU. The regulations also require that 95% of the entry point turbidity samples collected have measurements below 0.3 NTU. All levels recorded were below the acceptable range allowed and did not constitute a treatment violation.

Table II
Table of Detected Contaminants for the Town of Queensbury 2016

Contaminant	Violation Yes/No	Date of Sample	Level Detected	Unit Measurement	MCLG	Regulatory Limit MCL	Likely Source of Contamination
Radiologicals							
Combined Radium 226 and 228	No	2008	0.468	pCi/l	0	5 pCi/L	Erosion of natural deposits.
Radium 228	No	5/13/08 2/14/08	0.139 0.129	pCi/l	0	5pCi/L	Erosion of natural deposits.
Radium 226	No	2/19/08	0.0334	pCi/l	0	5pCi/L	Erosion of natural deposits.
Combined Filter Effluent Turbidity (5 filters) and Microbiologicals							
Turbidity ¹	No	11/9/16, 11/17/16	0.13	NTU	N/A	TT=<1 NTU	Soil Runoff
Turbidity ¹	No	November 2016	100%	%	100%	TT=95% of samples <0.3 NTU	Soil Runoff
Inorganic Contaminants							
Barium	No	2/3/16	0.005	mg/l	2.0 mg/l	2.0 mg/l	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Sodium	No	5/4/16 8/3/16 11/2/16	17.4 14.6 15.4 ²	mg/l	N/A	N/A	Naturally occurring, road salt, animal waste, sodium carbonate
Nitrate	No	2/3/16	0.11	mg/l	10 mg/l	10.0 mg/l as Nitrogen	Erosion of natural deposits, Runoff from fertilizer
Chloride	No	2/13/2013	5.8	mg/l	N/A	250 mg/l	Erosion of natural deposits, water disinfection by-product
Iron	No	2/13/2013	0.009	mg/l	N/A	0.3 mg/l	Erosion of natural deposits
Manganese	No	2/13/2013	0.005	mg/l	N/A	0.3 mg/l	Erosion of natural deposits
Sulfate	No	2/13/2013	11.5	mg/l	N/A	250 mg/l	Erosion of natural deposits, Runoff from fertilizer
Zinc	No	2/13/2013	0.006	mg/l	N/A	5.0 mg/l	Erosion of natural deposits
Contaminant	Violation Yes/No	Date of Sample	Level Detected	Unit Measurement	MCLG	Regulatory Limit MCL	Likely Source of Contamination

<i>Principal Organic Compounds</i>							
Bromomethane	No	2/3/16 4/6/16 7/13/16 11/2/16	0.58 ND ND ND	ug/l	N/A	N/A	Erosion of Natural Deposits
<i>Disinfection Byproducts</i>							
Total Organic Carbon	No	Monthly	Annual Range ³ ND-2.1 Average – 1.62	mg/l	N/A	TT	Naturally present in the environment
<i>Unregulated Contaminant Monitoring Regulation 3 (UCMR3)⁵</i>							
Strontium	No	Quarterly Samples 2/13/15, 4/13/15, 7/16/15, 10/15/15	22 – 28 Annual Range	ug/L	N/A	N/A	Erosion of Natural Deposits
Chlorate	No	Quarterly Samples 2/13/15, 4/13/15, 7/16/15, 10/15/15	44-160 Annual Range	ug/L	N/A	N/A	Agriculture Runoff
Vanadium	No	Quarterly Samples 2/13/15, 4/13/15, 7/16/15, 10/15/15	0.2-0.5 Annual Range	ug/L	N/A	N/A	Erosion of Natural Deposits
Chromium (hexavalent)	No	Quarterly Samples 2/13/15, 4/13/15, 7/16/15, 10/15/15	0.03 Annual Range	ug/L	N/A	N/A	Erosion of Natural Deposits

1 - Turbidity is a measure of the cloudiness of the water. We measure it because it is a good indicator of the effectiveness of our filtration system. Our highest combined filter effluent turbidity measurement for the year occurred on 11/9/2016 and 11/17/2016 (0.13 NTU). State regulations require that combined filter effluent point turbidity must always be below 1.0 NTU. The regulations also require that 95% of the combined filter effluent point turbidity samples collected have measurements below 0.3 NTU. All levels recorded were well below the acceptable range allowed and did not constitute a treatment violation.

2 - Water containing more than 20 mg/l sodium should not be used for drinking by people on severely restricted diets. This represents 4.73 mg of sodium in one 8 fluid oz. glass of water.

3 - Total Organic Carbon is not regulated, but its calculated removal and compliance ratio must equal or exceed performance requirements established by the US-EPA. All levels recorded were well below the acceptable range allowed and did not constitute a treatment technique violation.

4- The Long Term 2 Enhanced Surface Water Treatment Rule was implemented by the US-EPA to monitor drinking water sources. Specifically, Giardia and Cryptosporidium which are highly resistant to traditional water treatment practices. Our system is required to test monthly for two years, starting October 2016. Please note that these results are prior to any water treatment. For more information, please review the US-EPA website.

5- In 2015, we were required to collect and analyze drinking water samples under the Unregulated Contaminant Monitoring Regulation 3 (UCMR3). The contaminants currently do not have a maximum contaminant level but are being tested for future regulations. More information can be found the EPA website under UCMR3.

INFORMATION ON GIARDIA - QUEENSBURY

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 2016, as part of our routine sampling, three samples were collected of untreated Hudson River source water and analyzed for Giardia cysts. Of these samples one showed three cysts, a second showed forty-six cysts, and a third showed fifteen 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. 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 6 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.

Table III
Table of Detected Contaminants Saratoga County Water Authority 2016

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
Microbiological Contaminants							
Turbidity (Highest Result -Entry Point)	No	11/14/2016	0.158	NTU	N/A	TT-1.0	Soil Runoff.
Transmission System	No	6/28/16	0.29	NTU	N/A	TT-5.0	
Total Organic Carbon (TOC)	No	Raw Avg Treated Avg	3.6 1.6	mg/l	N/A	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, TT or AL)	Likely Source of Contamination
Nitrate	No	2/24/2016	0.13	mg/l	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Fluoride	No	1/11/2011	0.038	mg/l	N/A	2.2	Erosion of Natural Deposits; Water additive that promotes strong teeth.
Manganese	No	1/22/2013	12	ug/l	N/A	300	Naturally occurring; Indicative of landfill contamination
Sodium	No	1/22/2013	8.44	mg/l	N/A	270*	Naturally occurring; Road salt; Water softeners; Animal waste.
Zinc	No	1/22/2013	21	ug/l	N/A	5000	Naturally occurring; Mining waste.
Chloride	No	1/22/2013	10.8	mg/l	N/A	250	Naturally occurring or indicative of road salt contamination.
Sulfate	No	1/22/2013	3.8	mg/l	N/A	250	Naturally occurring.
Barium	No	3/8/16	0.006	mg/l	2	2000	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.

* 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.

INFORMATION ON CRYPTOSPORIDIUM – SARATOGA COUNTY WATER AUTHORITY

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. During 2016, as part of our routine sampling, three samples were collected of untreated Hudson River source water and analyzed for Cryptosporidium oocysts. Of these samples, one sample showed two oocysts and two samples 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 – SARATOGA COUNTY WATER AUTHORITY

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 2016, as part of our routine sampling, three samples were collected of untreated Hudson River source water and analyzed for Giardia cysts. Of these samples, of these samples one showed five cysts and two 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. 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.

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.

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. Regulatory level is 4.0 mg/L chlorine.

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.

Action Level (AL): The concentration of a contaminant, 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.

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

Milligrams per liter (mg/L): Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).

Micrograms per liter (µg/L): Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb). **N/A = Not Applicable.**

