

Annual Drinking Water Quality Report for 2018

Village of Round Lake & Victoria Landing
PO Box 85, 49 Burlington Avenue, Round Lake, NY 12151
(Public Water Supply Identification Number NY4500167)

INTRODUCTION

To comply with State regulations, the Village of Round Lake 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 drinking water met all State drinking water health standards. 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: *Gary Putman, Mayor*, at mayor@roundlakevillage.org or *Mr. John Stevenson, DPW Superintendent*, PO Box 85, Round Lake, NY 12151; Telephone (518) 857-5830 or (518) 899-2800. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the 3rd Wednesday of each month, 7:00 PM at the Municipal Building, 49 Burlington Avenue, Round Lake, NY 12151; Telephone (518) 899-2800.

WHERE DOES OUR WATER COME FROM?

The Village of Round Lake purchases its water from the Clifton Park Water Authority (CPWA). Sources of water associated with the CPWA system include: CPWA owned and operated groundwater wells and interconnections with the Town of Glenville and the Saratoga County Water Authority. A description of each of these drinking water sources is presented below.

CPWA has many wells located throughout Clifton Park at 8 different sites listed below:

Vischer Ferry Preserve (2), Plank Road, Kinns Road, Boyack Road (2), Berry Farm, Oakwood, Moe Road, and Shenendehowa.

Moe Road was used only as a backup source last year due to limited production capabilities.

The majority of CPWA water (approximately 70%) is pumped from the Preserve and Boyack wells. This water is treated to remove iron and manganese at the Boyack Road Treatment Plant. These sources are pumped on a year round basis because of the improved quality. Also pumped year round are: the Berry Farm, Plank Road, Shenendehowa and Kinns Road sources. These sources provide the highest quality water with the lowest hardness available. The remainder of the sources are used during the summer months to meet the higher demand created by outdoor uses. Liquid chlorine is added to the water at all sources for disinfection purposes. Phosphates are added at the Berry Farm and Oakwood locations in an effort to sequester the iron, manganese, and hardness in those sources.

The CPWA has an interconnection with the Town of Halfmoon water system at the Crossing. The CPWA did not purchase water from the Town of Halfmoon in 2018. CPWA also has an interconnection with the Town of Glenville. In 2018, CPWA purchased a portion of their water from the Saratoga County Water Authority.

CPWA has an interconnection with the Saratoga County Water Authority (SCWA) to purchase water. The SCWA water source is the Hudson River. Water treatment consists of addition of a coagulant and filtration through membrane filters. Caustic soda is added for pH adjustment and orthophosphate for corrosion control. Sodium hypochlorite is added for disinfection and to maintain a residual throughout the transmission system. There is a one-million gallon water storage tank at the water plant which provides contact time for proper disinfection of water and storage. A new carbon filtration system utilizing granular activated carbon has been added to the treatment process to reduce the levels of disinfection byproducts. This is where Round Lake's water comes from.

The source water assessment performed by the New York State Health Department has rated our water (CPWA) as having an elevated susceptibility to microbial contamination and nitrates. The SWAP summary for our water supply is attached to this report. It should be noted that the SWAP looks at the untreated water only. Our water is treated to minimize the potential sources of contamination.

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; haloacetic acids, trihalomethanes and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and EPA prescribe regulations, which limit the amount of certain contaminants in water, provided by public water systems. The State Health Department and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

FACTS AND FIGURES

The Village provides water through 312 service connections to a population of approximately 650 people. Our average daily demand is 32,716 gallons. Our single highest day 90,698 gallons. The total water used in 2018 was 10,893,368 gallons. Within the Village is the hamlet of Victoria Landing which has 27 service connections to a population of approximately 50 people. This area receives water from CPWA before it is rechlorinated at our chlorination building. Their average daily demand is 3,658 gallons.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

In accordance with State regulations, the Clifton Park Water Authority, the SCWA, the Town of Glenville and the Village of Round Lake routinely monitor your drinking water for numerous contaminants. Your drinking water is tested for inorganic contaminants, radiological contaminants, lead and copper, nitrate, volatile organic contaminants, disinfection byproducts and synthetic organic contaminants. In addition, the Village of Round Lake collects 2 water sample each month that is tested for coliform bacteria. The table presented below depicts which contaminants were detected in your drinking water. 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, 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 pose 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 Glens Falls District Office at (518) 793-3893.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the tables on pages 3-10, **our system had no MCL 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. To understand the possible health effects described 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 described health effect.

The Saratoga County Water Authority (SCWA) has been doing Cryptosporidium and Giardia monitoring on their untreated raw water during 2018. We are required to furnish the necessary health effects information.

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. During 2018, as part of our sampling plan, 8 samples of our Hudson River source water were collected and analyzed for Cryptosporidium oocysts. None of the 8 samples collected was presumed positive for Cryptosporidium, and was confirmed positive. Therefore, our monitoring does not indicate 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.

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 2018, as part of our monitoring plan, 8 samples of our Hudson River source water were collected and analyzed for Giardia cysts. Of these samples 7 were confirmed positive for Giardia cysts. Therefore, our monitoring 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 of other settings where handwashing practices are poor.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2018, our system (Village of Round Lake) was in compliance with applicable State drinking water operating and monitoring requirements.

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 Round Lake 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>

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 microbiological pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

WATER CONSERVATION TIPS

There are a lot of things you can do to conserve water in your own home. The following tips may alert you to serious water wasting habits many of us have fallen into.

- ◆ 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
- ◆ Water gardens and lawn for only a couple of hours after sunset
- ◆ Check faucets, pipes and toilets for leaks and repair all leaks promptly
- ◆ Take shorter showers

WHAT IS THE SOURCE WATER ASSESSMENT PROGRAM (SWAP)?

To emphasize the protection of surface and ground water sources used for public drinking water, Congress amended the Safe Drinking Water Act (SDWA) in 1996. The amendments require that New York State Department of Health's Bureau of Public Water Supply Protection is responsible for ensuring that source water assessments are completed for all of New York's public water systems.

A source water assessment provides information on the potential contaminant threats to public drinking water sources:

- ◆ each source water assessment will: determine where water used for public drinking water comes from (delineate the source areas)
- ◆ Inventory potential sources of contamination that may impact public drinking water sources
- ◆ Assess the likelihood of a source water area becoming potential contaminated

A SWAP summary for the Clifton Park Water Authority from whom we purchase our water is attached to this report.

SYSTEM IMPROVEMENTS

The Village has been working with Lamont Engineers, P.C. to reduce its disinfection byproducts. We have been doing additional trihalomethane and haloacetic acids sampling on a monthly basis since June 2017 and continuing into 2018 to better assess the concentration levels we are getting from CPWA and the increase in THM/HAA5 concentration after we re-chlorinate and the water is stored in our clearwell.

We have installed a SolarBee to provide uniform mixing of the disinfectant in our clearwell. We are also actively investigating other solutions.

CLOSING

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit our customers. We ask that all our customers help us protect our water sources. Please call our office if you have questions.

Or email me at mayor@roundlakevillage.org

VILLAGE OF ROUND LAKE & VICTORIA LANDING TABLE OF DETECTED CONTAMINANTS							
Public Water Supply Identification Number NY4500167							
Table of Detected Contaminants							
Contaminant	Violation Y/N	Date of Sample	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants							
Copper Range of copper concentration	N	8/17/17- 8/18/17	0.13 ¹ ND-0.60	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead Range of lead concentration	N	8/17/17- 8/18/17	2 ² ND-5	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Microbiological Contaminants							
Total Coliform	N	8/13/18	1 positive sample	N/A	0	>2 when less than 40 samples are analyzed in a month	Naturally present in the environment
Disinfection Byproducts							
Stage 2 Haloacetic Acids (HAA5) ³	N	2/12/18 5/14/18 8/13/18 11/13/18	52.6 29-50	ppb	N/A	60	By-product of drinking water disinfection
Stage 2 Haloacetic Acids (HAA5) ⁴ samples from Victoria Landing [range of values]	N	2/12/18 5/14/18 8/13/18 11/13/18	41.8 21-42				
Stage 2 Total Trihalomethanes (TTHM) ³	N	2/12/18 5/14/18 8/13/18 11/13/18	68.2 31-55.2	ppb	0	80	By-product of drinking water chlorination
Stage 2 Total Trihalomethanes (TTHM) ³ samples from Victoria Landing [range of values]	N	2/12/18 5/14/18 8/13/18 11/13/18	56.3 22.1-58.5				
Chlorine (average) Range of values	N	daily samples	1.04 0.97-1.12	ppm	MRDLG N/A	MRDL 4	Used in the disinfection and treatment of drinking water
Chlorine (average) Range of values Victoria Landing			0.62 0.54-0.70				
<p>1-The level presented represents the 90th percentile of the 10 samples collected. The action level for copper was not exceeded at any 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 or copper values detected at your water system. In this case, 10 samples were collected at your water system and the 90th percentile value was the second highest value (0.13 ppm) for the copper sampling.</p> <p>2- The level presented represents the 90th percentile of the 10 samples collected. The action level for lead was not exceeded at any of the 10 sites tested.</p> <p>3. Values represent the highest LAA's for TTHM & HAA5 for the 4 quarters of 2018. The highest LRAA for the TTHMs and HAA5s was in the 1st quarter of 2018 for Round Lake and Victoria Landing.</p>							

Saratoga County Water Authority Public Water Supply Identification Number NY4530222 Table of Detected Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely source of Contamination
Inorganic Contaminants							
Barium	N	4/17/18	5	ppb	2000	2000	Erosion of natural deposits
Chloride	N	3/28/17	10.8	ppm	N/A	250	Geology; Naturally occurring
Manganese	N	3/28/17	3	ppb	N/A	300	Geology; Naturally occurring
Nitrate	N	3/14/18	0.2	ppm	10,000	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium ¹	N	3/28/17	9.07	ppm	N/A	N/A	Geology; Road Salt
Microbiological Contaminants							
Turbidity (Highest Value) ²	N	7/13/18	0.154 100%	NTU	N/A	TT=1.0 NTU TT= 95% samples < 0.3	Soil runoff
Total Organic Carbon (TOC) samples from 2018							
TOC (average)	N	Monthly samples	3.89 avg.raw 1.29 avg treat	ppm	N/A	TT	Naturally present in the environment
Notes: 1. Water containing more than 20 mg/l should not be used for drinking by persons on severely restricted sodium diets. 2. Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of our filtration system. Level detected represents the highest-level detected. Our highest single turbidity measurement for the year 7/13/18 (0.154 NTU). State regulations require that entry point turbidity must always be below 1.0 NTU. The regulations also require that 95% of the turbidity samples collected have measurements below 0.3 NTU and complied 100% of the time.							

Clifton Park Water Authority Water System Table of Detected Contaminants

Bacteriological Contaminants							
Contaminant	Sample Date	Violation	MCL, (AL) or ((TT))	MCLG	Units	Contaminant Level	Likely Source of Contamination
Total Coliform	6/12/18	No	3 positive samples per month	0	N/A	1 Positive Sample ¹	Naturally present in the environment.
Inorganic Contaminants							
Shenendehowa Well							
Nitrate	6/27/17	No	10	10	mg/l	2.68	Erosion of natural deposits
Sulfate	6/27/17	No	250	N/A	mg/l	46.3	Erosion of natural deposits

Chloride	2/21/18	Yes	250	N/A	mg/l	380	Erosion of natural deposits
Sodium	2/14/18	No	N/A	N/A	mg/l	174	Erosion of natural deposits
Berryfarm Well							
Nitrate	6/18/18	No	10	10	mg/l	0.382	Erosion of natural deposits
Barium	10/5/17	No	2	2	mg/l	0.12	Erosion of natural deposits
Iron	6/18/18	No	300	N/A	ug/l	200	Erosion of natural deposits
Sodium	6/18/18	No	N/A	N/A	mg/l	70.4	Erosion of natural deposits
Zinc	6/18/18	No	5	N/A	mg/l	0.02	Erosion of natural deposits
Sulfate	6/18/18	No	250	N/A	mg/l	34.8	Erosion of natural deposits
Chloride	6/18/18	No	250	N/A	mg/l	152	Erosion of natural deposits
Manganese	6/18/18	No	300	N/A	ug/l	94	Erosion of natural deposits

¹ In June of 2018, the CPWA detected coliforms in 1 of the 40 routine monthly compliance samples collected. Follow-up samples were collected and coliforms were not detected. Since total coliforms were detected in less than 5% of the samples collected for the month, the system was not in violation of regulatory limits.

² The CPWA took three samples for sodium and chloride from the Shenendehowa well in 2017 (6/27, 8/23 and 11/27) and one in 2018. All four chloride samples exceeded the maximum contaminant level. Chloride is essential for maintaining good health. Research has not conclusively demonstrated that human exposure to chloride itself causes adverse health effects, although exposure to high levels of certain chloride salts has been associated with adverse health effects in humans. For example, high dietary intake of sodium chloride can be a contributing factor to high blood pressure, but this has been attributed mainly to the presence of sodium. The New York State standard for chloride is 250 mg/l and is based on chloride's effects on the taste and odor of the water. The CPWA discontinued the use of this well in 2018.

Commented [OMT(1): NOT REQUIRED

Inorganic Contaminants							
Contaminant	Sample Date	Violation	MCL (or AL)	MCLG	Units	Contaminant Level	Likely Source of Contamination
Plank Road Well							
Barium	6/18/18	No	2	2	mg/l	0.274	Erosion of natural deposits
Fluoride	6/18/18	No	2.2	N/A	mg/l	0.37	Erosion of natural deposits; discharge from fertilizer
Nitrate	6/18/18	No	10	10	mg/l	0.129	Erosion of natural deposits
Iron	6/27/17	No	300	N/A	ug/l	161	Erosion of natural deposits

Manganese	6/27/17	No	300	N/A	ug/l	16.4	Erosion of natural deposits
Sodium	6/27/17	No	N/A	N/A	mg/l	43.6	Erosion of natural deposits
Chloride	6/27/17	No	250	N/A	mg/l	31.8	Erosion of natural deposits
Vischer Ferry Preserve Wells (Raw Water)							
Total Dissolved Solids	6/8/16	No	N/A	N/A	mg/l	335	Erosion of natural deposits
Turbidity	6/8/16	No	N/A	N/A	NTU	0.13	Oxidation of natural deposits
Alkalinity	6/8/16	No	N/A	N/A	mg/l	205	Erosion of natural deposits
Arsenic	6/18/18	No	10	0	ug/l	0.5	Erosion of natural deposits
Copper	6/8/16	No	(1.3)	1.3	mg/l	0.006	Erosion of natural deposits
Manganese	6/8/16	No	50	N/A	ug/l	2960 ³	Erosion of natural deposits
Sodium	6/18/18	No	N/A	N/A	mg/l	20.5	Erosion of natural deposits
Total Hardness	6/8/16	No	N/A	N/A	mg/l	251	Erosion of natural deposits
Nickel	6/18/18	No	N/A	N/A	ug/l	3.9	Erosion of natural deposits
Chloride	6/8/16	No	250	250	mg/l	41.5	Erosion of natural deposits
Sulfate	6/8/16	No	250	250	mg/l	19.9	Erosion of natural deposits
Chromium	6/18/18	No	100	100	ug/l	6.5	Erosion of natural deposits
Barium	6/18/18	No	2	2	mg/l	0.022	Erosion of natural deposits
Fluoride	6/18/18	No	2.2	N/A	mg/l	0.187	Erosion of natural deposits
Nitrate	6/18/18	No	10	10	mg/l	0.205	Erosion of natural deposits
Boyack Road Water Treatment Plant							
Barium	6/18/18	No	2	2	mg/l	0.069	Erosion of natural deposits
Fluoride	6/18/18	No	2.2	N/A	mg/l	0.0845	Erosion of natural deposits; discharge from fertilizer
Sodium	6/18/18	No	N/A	N/A	mg/l	60.3	Erosion of natural deposits
Nickel	6/18/18	No	N/A	N/A	ug/l	6.3	Erosion of natural deposits
Selenium	6/18/18	No	50	50	ug/l	1.7	Erosion of natural deposits
Arsenic	6/18/18	No	10	0	ug/l	0.8	Erosion of natural deposits

Chromium	6/18/18	No	100	100	ug/l	9.7	Erosion of natural deposits
Nitrate	6/18/18	No	10	10	mg/l	0.267	Erosion of natural deposits
Chloride	6/27/17	No	250	N/A	mg/l	59.4	Erosion of natural deposits
Calcium	5/30/17	No	N/A	N/A	mg/l	6.04	Erosion of natural deposits
Sulfate	6/27/17	No	250	N/A	mg/l	66.4	Erosion of natural deposits

³ The samples from the Vischer Ferry wells are raw water samples (before filtration), which is why there is not a violation for the high level of manganese in the water. The manganese is removed from the water during the filtration process.

Inorganic Contaminants							
Contaminant	Sample Date	Violation	MCL (or AL)	MCLG	Units	Contaminant Level	Likely Source of Contamination
Kinns Road Well							
Barium	6/18/18	No	2	2	mg/l	0.602	Erosion of natural deposits
Selenium	6/18/18	No	50	50	ug/l	1.8	Erosion of natural deposits
Zinc	6/18/18	No	5	N/A	mg/l	0.0264	Erosion of natural deposits
Manganese	6/18/18	No	300	N/A	ug/l	24.1	Erosion of natural deposits
Iron	6/18/18	Yes	300	N/A	ug/l	580	Erosion of natural deposits
Arsenic	6/18/18	No	10	0	ug/l	0.5	Erosion of natural deposits
Sodium	6/18/18	No	N/A	N/A	mg/l	47.9	Erosion of natural deposits
Chromium	6/18/18	No	100	100	ug/l	6.9	Erosion of natural deposits
Nitrate	6/18/18	No	10	10	mg/l	0.189	Erosion of natural deposits
Chloride	6/18/18	No	250	N/A	mg/l	37.8	Erosion of natural deposits
Fluoride	6/18/18	No	2.2	N/A	mg/l	0.326	Erosion of natural deposits; discharge from fertilizer
Oakwood Blvd Well							
Barium	6/18/18	No	2	2	mg/l	0.0851	Erosion of natural deposits
Nickel	6/18/18	No	N/A	N/A	ug/l	3.2	Erosion of natural deposits

Zinc	6/18/18	No	5	N/A	mg/l	0.00483	Erosion of natural deposits
Silver	6/18/18	No	100	N/A	ug/l	5.1	Erosion of natural deposits
Selenium	6/18/18	No	50	50	ug/l	1.6	Erosion of natural deposits
Manganese	6/18/18	No	300	N/A	ug/l	22.8	Erosion of natural deposits
Arsenic	6/18/18	No	10	0	ug/l	0.5	Erosion of natural deposits
Sodium	6/18/18	No	N/A	N/A	mg/l	36.5	Erosion of natural deposits
Chromium	6/18/18	No	100	100	ug/l	13.9	Erosion of natural deposits
Sulfate	6/18/18	No	250	N/A	mg/l	74.6	Erosion of natural deposits
Nitrate	6/18/18	No	10	10	mg/l	0.2	Erosion of natural deposits
Chloride	6/18/18	No	250	N/A	mg/l	112	Erosion of natural deposits
Fluoride	6/18/18	No	2.2	N/A	mg/l	0.0807	Erosion of natural deposits; discharge from fertilizer

Volatile Organic Contaminants

Contaminant	Sample Date	Violation	MCL (or AL)	MCLG	Units	Contaminant Level	Likely Source of Contamination
Boyack Road Water Treatment Plant							
Dichlorodifluoromethane	6/18/18, 9/4/18	No	5	N/A	ug/l	Range: ND - 1.24 Avg: 0.62	Refrigerant; aerosol propellant; foaming agent

Radiological Contaminants

Contaminant	Sample Date	Violation	MCL (or AL)	MCLG	Units	Contaminant Level	Likely Source of Contamination
Berryfarm Well							
Radium 226 & 228	9/6/17	No	5	0	pCi/L	1.49	Erosion of natural deposits
Oakwood Blvd Well							
Radium 226 & 228	6/27/17	No	5	0	pCi/L	2.48	Erosion of natural deposits
Shenendehowa Well							

Gross Alpha	7/21/09 and 12/7/09	No	15	0	pCi/L	Range: 1.1-2.5	Avg.: 1.8	Erosion of natural deposits
Combined Radium-226 and 228	7/21/09 and 12/7/09	No	5	0	pCi/L	Range: 0.04-0.92	Avg: 0.48	Erosion of natural deposits

Secondary Inorganic Contaminants ⁴

Contaminant	Sample Date	Violation	MCL (or AL)	MCLG	Units	Contaminant Level			Likely Source of Contamination
						Site 1	Site 2	Site 3	
Iron	7/13/2016	No	300	300	ug/l	58.5	ND	ND	Naturally occurring
Sodium	7/13/2016	No	N/A	N/A	mg/l	36.2	35.6	36.2	Naturally occurring
Zinc	7/13/2016	No	5	5	mg/l	0.0149	ND	ND	Naturally occurring
Chloride	7/13/2016	No	250	250	mg/l	69.1	65.7	65.9	Naturally occurring
Sulfate	7/13/2016	No	250	250	mg/l	67.1	63.5	63.6	Naturally occurring
Color	7/13/2016	No	15	15	cpu	ND	5	ND	

⁴ Secondary inorganic sampling was conducted in 2016 at 4 sites in the southern end of the water system, near the Boyack Road Water Treatment Plant, in order to test the performance of the filtration process.

⁵ The sample taken at Site #4 had an elevated level of sodium due to the use of a water softener within the home. This result is not representative of the water supplied by the CPWA.

Lead and Copper

Contaminant	Sample Date	Violation	MCL (or AL)	MCLG	Units	Contaminant Level	Likely Source of Contamination
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Commented [OMT(2)]: NOT REQUIRED

Distribution System						Range of Detected Levels	90th Percentile ⁶	
Lead	6/14/17 and 7/13/17	No	(15)	0	ug/l	ND-12.6		Corrosion of household plumbing systems; Erosion of natural deposits
Copper	6/14/17 and 7/13/17	No	(1.3)	1.3	mg/l	ND-1.03		Corrosion of galvanized pipes; Erosion of natural deposits
Disinfection Byproducts								
Total Trihalomethanes								
Sample Site #1	See Note 7	No	80	N/A	ug/l	Range: 24.7 - 71.4	Highest LRAA - 75	By-Products of drinking water chlorination.
Sample Site #2	See Note 7	No	80	N/A	ug/l	Range: 20.4 - 36.4	Highest LRAA - 41	By-Products of drinking water chlorination.
Sample Site #3	See Note 7	No	80	N/A	ug/l	Range: 20.3 - 32.5	Highest LRAA - 26	By-Products of drinking water chlorination.
Sample Site #4	See Note 7	No	80	N/A	ug/l	Range: 21.1 - 46.2	Highest LRAA - 35	By-Products of drinking water chlorination.
Haloacetic Acids								
Sample Site #1	See Note 7	Yes ⁸	60	N/A	ug/l	Range: 22.7 - 33.3	Highest LRAA - 64	By-Products of drinking water chlorination.
Sample Site #2	See Note 7	No	60	N/A	ug/l	Range: 6.1 - 22.8	Highest LRAA - 39	By-Products of drinking water chlorination.
Sample Site #3	See Note 7	No	60	N/A	ug/l	Range: 10.2 - 29.5	Highest LRAA - 13	By-Products of drinking water chlorination.
Sample Site #4	See Note 7	No	60	N/A	ug/l	Range: 3.1 - 7.2	Highest LRAA - 5	By-Products of drinking water chlorination.

Commented [OMT(3)]: NOT REQUIRED

⁶ The CPWA took 30 lead and copper samples in 2017. 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 of values detected at your water system. In this case, 30 samples were collected at your water system and the 90th percentile value was the 27th highest value. Due to the CPWA's history of low lead and copper test results, the NYS Department of Health reduced our sample frequency for these contaminants to once every three years. 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 Clifton Park Water Authority 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>.

⁷ Sampling for disinfection byproducts was conducted quarterly by the CPWA on 2/12/18, 5/7/18, 8/13/18 and 11/14/18 at four locations in the water system. Sample sites are as follows: #1 - State Farm Region Office Malta, #2 - Blue Spruce Water Tank, #3 - Knolltop Water Tank, #4 - Grooms Road. 2018 sample results are shown for each location as a range of results as well as the highest locational running annual average (LRAA). The LRAA is the average of the previous 4 quarters.

⁸ The CPWA had violations in the first two quarters of 2018 for Locational Running Annual Averages of Haloacetic Acids above the maximum contaminant level. All samples taken in 2018 were below the maximum contaminant level, but a high result in November of 2017 caused the LRAAs in the first two quarters of 2018 to be above the MCL. Some people who use water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

Every five years, the USEPA directs water suppliers to analyze samples for suspected drinking water contaminants that do not have health-based standards under the Safe Drinking Water Act. This information is used as a tool to determine if a contaminant should or should not be regulated in the future. In 2018, the Clifton Park Water Authority monitored for 30 currently unregulated contaminants. The list below represents those contaminants that were detected.

	Units	SCWA Magnolia Way Intertie	Berry Farm	Boyack Road WTP	Boyack Road WTP	Kinns Road	Oakwood Blvd	Plank Road	Slate Farm	Blue Spruce Tank	Knolltop Tank	Grooms Road
Sample Type ¹		Entry Point	Entry Point	Raw Water	Entry Point	Entry Point	Entry Point	Entry Point	DBP ¹	DBP	DBP	DBP
Date of Sample		See Note 3 Below										
Manganese	ug/l	0.63 * 90.6 **			1.5 * 0.81 **	21.8**	87.9**	16.3**				
Total Organic Carbon	ug/l			1.8 * 1750 **								
Bromochloroacetic Acid	ug/l								0.78**	2.4**	1.9**	0.51**
Bromodichloroacetic Acid	ug/l								1.1**	3.3**	2.3**	0.51**
Chlorodibromoacetic Acid	ug/l									0.67**	1.1**	
Dibromoacetic Acid	ug/l									0.60**	1.5**	
Dichloroacetic Acid	ug/l								9.3**	9.1**	2.8**	1.3**
Monobromoacetic Acid	ug/l										0.35**	
Trichloroacetic Acid	ug/l								19.5**	13.6**	3.5**	2.1**

¹ DBP (Disinfection By-Product) refers to the locations in the CPWA system that are designated for routine monitoring of currently regulated disinfection byproducts.

² (Not Tested) Certain contaminants that are tested for at entry point locations are not tested for at DSMRT locations in accordance with the requirements of the Unregulated Contaminant Monitoring Rule.

³ Samples were taken on two dates in 2018. An asterisk (*) indicates a sample taken on 9/17/18. A double asterisk (**) indicates a sample taken on 12/5/18.

Glossary of Terms Used in Data Tables

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

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

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

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

90th Percentile Value- The values reported for lead and copper represent the 90th percentile. 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 and copper values detected at your water system

Action Level - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

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

Maximum Contaminant Level - The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal - The "Goal" (MCLG) is 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...

Locational Running Annual Average (LRAA) - The LRAA is calculated by taking the average of the four most recent samples collected at each individual site

N/A-not applicable

**Clifton Park Water Authority
PWSID# NY4530222
AWQR SWAP Summary**

The NYS DOH has completed a source water assessment for this system, based on available information. Possible and actual threats to this drinking water source were evaluated. The state source water assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how easily contaminants can move through the subsurface to the wells. The susceptibility rating is an estimate of the potential for contamination of the source water, it does not mean that the water delivered to consumers is, or will become contaminated. See section "Are there contaminants in our drinking water?" for a list of the contaminants that have been detected. The source water assessments provide resource managers with additional information for protecting source waters into the future. Water suppliers and county and state health departments will use this information to direct future source water protection activities. These may include water quality monitoring, resource management, planning, and education programs.

Our source of drinking water is derived from both ground water (drilled wells). The source water assessment has rated most of our ground water sources (wells) as having an elevated susceptibility to microbial and a nitrate contamination. These ratings are due primarily to the residential land use and associated activities, such as fertilizing lawns, in the assessment area. One well is also rated as having an elevated susceptibility to herbicide/pesticide contamination. These ratings are due primarily to agricultural land use near the well. In addition, the wells draw from fractured bedrock and the overlying soils do not provide adequate protection from potential contamination. While the source water assessment rates our wells as being susceptible to microbials, please note that our water is disinfected to ensure that the finished water delivered into your home meets New York State's drinking water standards from microbial contamination.

**Saratoga County Water Authority
PWSID# NY4500175**

**AWQR SWAP Summary
March 2011**

A source water assessment was performed on this water source, using available data, to determine the susceptibility to contamination. It is important to note that this assessment was created using available information and only estimates the potential for source water contamination.

Our drinking water is derived from a surface water source, the Hudson River. 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.

**Town of Glenville WD #11
PWSID# NY4600091
AWQR SWAP Summary**

The Glenville source water assessment rates their wells as having an elevated susceptibility to contamination. In addition, the wells draw from an unconfined aquifer and the overlying soils are not known to provide adequate protection from potential contamination