Annual Drinking Water Quality Report for 2020

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: *Mr. John Stevenson, DPW Superintendent, PO Box 85, Round Lake, NY 12151; Telephone (518) 857-5830 or (518) 899-4946.* 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) 899-4946.

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 2020. CPWA also has an interconnection with the Town of Glenville. In 2020, CPWA purchased a portion of their water from the Saratoga County Water Authority and the Town of Halfmoon.

The Town of Halfmoon purchases water from the City of Troy. Water flows from the Tomhannock Reservoir to the Troy Water Treatment Plant (TWTP), a complete treatment facility. In an effort to lower the formation of disinfection byproducts (DBPs), TWTP adds potassium permanganate at the Tomhannock Reservoir. Potassium permanganate is a strong oxidant that is used to oxidize iron and manganese, but does not produce the DBPs that chlorine does. Potassium permanganate is being fed seasonally from mid June to about September or October depending on the iron and manganese levels in the raw water. Additionally, chlorine dioxide is added at Melrose Station to oxidize the organic material that leads to the formation of DBPs when it reacts with chlorine but unlike chlorine, chlorine dioxide does not form DBPs. Chlorine dioxide is fed year-round. The treatment process at Troy consists of; coagulation using aluminum sulfate (alum) to cause small particles to stick together when the water is mixed, making larger heavier particles; sedimentation allows the newly formed larger particles to settle out naturally; filtration removes smaller particles by trapping them in sand filters; pH adjustment for corrosion control; and final post chlorination to maintain a chlorine residual in the distribution system to prevent bacterial contamination and fluoridation at low levels to protect teeth. The water from Troy flows through a 24-inch pipe under the Hudson River and branches off to a 16-inch line in front of the Waterford WTP and the runs north to the Halfmoon Water Treatment Plant.

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.

The CPWA also purchased a portion of its water from the Town of Glenville in 2020. The Town of Glenville's water system consists of four drilled wells in the Great Flats Aquifer just west of the Village of Scotia, between Route 5 and the Mohawk

River. The aquifer is an extensive bed of sands and gravel underlying the Mohawk River channel. Glenville adds sodium hypochlorite (liquid chlorine) to the finished water for disinfection.

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 2020 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, The City of Troy Water Department 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) sampled for Cryptosporidium and Giardia monitoring on their untreated raw water during 2019. 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 2019, 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 2019, 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 allows 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 2020, 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

We have installed a SolarBee to provide uniform mixing of the disinfectant in our storage tank. We have also purchased a spray aeration system to volatilize the trihalomethanes from the water and vent them out the storage tank into the atmosphere.

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.

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	7/21/20-7/22/20	0.0887[1] 0.0144-0.339	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	7/21/20-7/22/20	1.86[2] ND-17.7	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Disinfection Byproducts							
Stage 2 Haloacetic Acids (HAA5) [3] samples from Village Garage [range of values]	N	2/11/20 5/11/20 8/10/20 11/9/20	35.2 31-37.9	ppb	N/A	60	By-product of drinking water disinfection
Stage 2 Haloacetic Acids (HAA5)[4] samples from Victoria Landing [range of values]	N	2/11/20 5/11/20 8/10/20 11/9/20	29.9 22.9-45				
Stage 2 Total Trihalomethanes (TTHM)[3] samples from Village Garage [range of values]	N	2/11/20 5/11/20 8/10/20 11/9/20	71.2 41.8-97.7	ppb	0	80	By-product of drinking water chlorination
Stage 2 Total Trihalomethanes (TTHM)[3] samples from Victoria Landing [range of values]	N	2/11/20 5/11/20 8/10/20 11/9/20	45.2 26.8-73				
Chlorine (average) Range of values	N	daily samples	1.13 1.05-1.29	ppm	MRDLG N/A	MRDL 4	Used in the disinfection and treatment of drinking water
Chlorine (average) Range of values Victoria Landing			0.64 0.49-0.73				

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.

2- The level presented represents the 90th percentile of the 10 samples collected. The action level for lead was exceeded at 1 of the 10 sites tested.

3. Values represent the highest LAA's for TTHM & HAA5 for the 4 quarters of 2020. The highest LRAA for the TTHMs was in the3rd quarter while the HAA5s was in the 3rd quarter of 2020 for Round Lake. The highest LRAA for Victoria Landing for the TTHMs was in the 3rd quarter and the 3rd and 4th quarters for the HAA5s in 2020.

Saratoga County Water Authority Water Supply Table of Detected Contaminants

Contaminant	Date of Sample	Violation (Yes/No)	MCL, (AL) or ((TT))	MCLG	Units	Contaminant Level Detected	Likely Source of Contamination
Turbidity							
Entry Point	8/17/2020	No	((1.0))	N/A	NTU	0.207	Soil Runoff
Transmission System	6/4/2020	No	((5.0))	N/A	NTU	0.22	Soil Runoff

Total Organic Carbon (TOC)	2020	No	TT	N/A	mg/l	3.89 (Avg. Raw) 1.59 (Avg. Treated)	Naturally present in the environment
Inorganic Contaminants							
Nitrate	3/10/2020	No	10	10	mg/l	0.15	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Manganese	4/8/2020	No	300	N/A	ug/l	2.0	Naturally present in the environment
Sodium	4/8/2020	No	270	N/A	mg/l	8.7 [1]	Naturally present in the environment. Road salt contamination
Chloride	4/8/2020	No	250	N/A	mg/l	11.3	Naturally present in the environment. Road salt contamination
Barium	3/10/2020	No	2	2	mg/l	0.005	Naturally present in the environment

[1] Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium diets; 270 mg/l for people on moderately restricted sodium diets.

Glossary of Terms:

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.
90^{th} Percentile Value- The values reported for lead and copper represent the 90^{th} 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 90^{th} 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 each quarter by taking the average of the four most recent samples collected at each site
N/A- Not applicable

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 and 2019, the Clifton Park Water Authority monitored for 30 currently unregulated contaminants. The chart below shows those contaminants that were detected in 2019.

2019 UCMR4 Data

Disinfection Byproducts Group				
Contaminant	Sample Date	Units	Range	Average
Boyack Road WTP Raw Water				
Bromide	3/5/19, 6/10/19	ug/l	38 - 41.1	39.6
Total Organic Carbon	3/5/19, 6/10/20	mg/l	1.6 - 1.61	1.61
State Farm Distribution System Sample Point				
Bromochloroacetic Acid	3/14/19, 6/10/19 and 9/12/19	ug/l	0.553 - 0.75	0.63
Bromodichloroacetic Acid	3/14/19, 6/10/19 and 9/12/20	ug/l	0.62 - 1.13	0.84
Dichloroacetic Acid	3/14/19, 6/10/19 and 9/12/21	ug/l	8.01 - 14.5	10.27
Trichloroacetic Acid	3/14/19, 6/10/19 and 9/12/22	ug/l	16.5 - 24.3	21.5
Blue Spruce Distribution System Sample Point				
Bromochloroacetic Acid	3/14/19, 6/10/19 and 9/12/19	ug/l	0.64 - 1.90	1.17
Bromodichloroacetic Acid	3/14/19, 6/10/19 and 9/12/20	ug/l	0.78 - 1.87	1.22
Chlorodibromoacetic Acid	3/14/2019	ug/l	0.511	
Dibromoacetic Acid	3/14/2019	ug/l	0.468	
Dichloroacetic Acid	3/14/19, 6/10/19 and 9/12/21	ug/l	7.29 - 20.4	12.03
Trichloroacetic Acid	3/14/19, 6/10/19 and 9/12/22	ug/l	12.0 - 29.5	21.9
Knolltop Distribution System Sample Point				
Bromochloroacetic Acid	3/14/19, 6/10/19 and 9/12/19	ug/l	1.0 - 1.35	1.15
Bromodichloroacetic Acid	3/14/19, 6/10/19 and 9/12/20	ug/l	0.72 - 1.07	0.9
Chlorodibromoacetic Acid	3/14/2019	ug/l	0.948	
Dibromoacetic Acid	3/14/2019	ug/l	0.96	
Monochloroacetic Acid	6/10/2019	ug/l	2.1	
Dichloroacetic Acid	3/14/19, 6/10/19 and 9/12/21	ug/l	1.67 - 26.0	13.29
Trichloroacetic Acid	3/14/19, 6/10/19 and 9/12/22	ug/l	1.95 - 36.7	19.7
Grooms Tavern Distribution System Sample Point				
Dichloroacetic Acid	6/10/2019	ug/l	1.5	
Trichloroacetic Acid	6/10/2019	ug/l	7	

Metals				
Berryfarm Treatment Plant Entry Point				
Manganese	6/10/2019	ug/l	96.3	
Kinns Road Treatment Plant Entry Point				
Manganese	6/10/2019	ug/l	15.2	
Oakwood Blvd Treatment Plant Entry Point				
Manganese	6/10/2019	ug/l	16	
Plank Road Treatment Plant Entry Point				
Manganese	6/10/2019	ug/l	87.2	
Boyack Road Treatment Plant Entry Point				
Manganese	3/5/2019	ug/l	1.1	
SCWA Intertie				
Manganese	3/5/19 and 6/10/19	ug/l	0.69 - 1.9	1.3
Semivolatiles				
Boyack Road Treatment Plant Entry Point				
Quinoline	3/5/2019	ug/l	0.021	
SCWA Intertie				
Quinoline	3/5/2019	ug/l	0.039	

Glossary of Terms Used in Data Tables

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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 Water System Table of Detected Contaminants

Microbiological Contaminants								
Contaminant	Sample Date	Violation	MCL, (AL) or ((TT))	MCLG	Units	Contaminant Level		Likely Source of Contamination
Total Organic Carbon	Monthly	No	N/A	N/A	mg/l	Range: 2.3 - 2.6	Avg: 2.5	Naturally present in the environment.

Inorganic Contaminants							
Berryfarm Well							
Arsenic	6/15/20	No	10	0	ug/l	0.3	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Nitrate	6/15/20	No	10	10	mg/l	0.222	Erosion of natural deposits; Runoff from fertilizer use; Leaching from septic tanks, sewage.
Barium	6/15/20	No	2	2	mg/l	0.129	Erosion of natural deposits; discharge of drilling wastes; discharge from metal refineries
Sodium	6/15/20	No	N/A	N/A	mg/l	86.8	Erosion of natural deposits; road salt; water softeners; animal waste
Zinc	6/15/20	No	5	N/A	mg/l	0.0226	Erosion of natural deposits; mining waste
Sulfate	6/15/20	No	250	N/A	mg/l	33.2	Erosion of natural deposits
Chloride	6/15/20	No	250	N/A	mg/l	181	Erosion of natural deposits; road salt
Nickel	6/15/20	No	N/A	N/A	ug/l	5.4	Erosion of natural deposits
Fluoride	6/15/20	No	2.2	N/A	mg/l	0.0767	Erosion of natural deposits; discharge from fertilizer; water additive that promotes strong teeth
Chromium	6/15/20	No	100	100	ug/l	0.7	Erosion of natural deposits; discharge from steel and pulp mills
Manganese	6/15/20	No	300	N/A	ug/l	0.0796	Erosion of natural deposits; landfill contamination
Plank Road Well							
Barium	6/18/18	No	2	2	mg/l	0.274	Erosion of natural deposits; discharge of drilling wastes; discharge from metal refineries
Fluoride	6/18/18	No	2.2	N/A	mg/l	0.37	Erosion of natural deposits; discharge from fertilizer; water additive that promotes strong teeth
Zinc	6/9/20	No	5	N/A	mg/l	0.00664	Erosion of natural deposits; mining waste
Manganese	6/9/20	No	300	N/A	ug/l	18.5	Erosion of natural deposits; landfill contamination

Sodium	6/9/20	No	N/A	N/A	mg/l	42.5	Erosion of natural deposits; road salt; water softeners; animal waste
Chloride	6/9/20	No	250	N/A	mg/l	35.2	Erosion of natural deposits; road salt
Inorganic Contaminants							
Contaminant	Sample Date	Violation	MCL (or AL)	MCLG	Units	Contaminant Level	Likely Source of Contamination
Vischer Ferry Preserve Wells (Raw Water)							
Arsenic	6/9/20	No	10	0	ug/l	0.2	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Sodium	6/18/18	No	N/A	N/A	mg/l	20.5	Erosion of natural deposits; road salt; water softeners; animal waste
Nickel	6/9/20	No	N/A	N/A	ug/l	10.3	Erosion of natural deposits
Chromium	6/9/20	No	100	100	ug/l	0.6	Erosion of natural deposits; discharge from steel and pulp mills
Selenium	6/9/20	No	50	50	ug/l	0.5	Erosion of natural deposits; discharge from petroleum and metal refineries; discharge from mines
Barium	6/9/20	No	2	2	mg/l	0.0242	Erosion of natural deposits; discharge of drilling wastes; discharge from metal refineries
Fluoride	6/9/20	No	2.2	N/A	mg/l	0.184	Erosion of natural deposits; discharge from fertilizer; water additive that promotes strong teeth
Nitrate	6/15/20	No	10	10	mg/l	0.199	Erosion of natural deposits; Runoff from fertilizer use; Leaching from septic tanks, sewage.
Boyack Wells (Raw Water)							
Nitrate	6/15/20	No	10	10	mg/l	0.234	Erosion of natural deposits; Runoff from fertilizer use; Leaching from septic tanks, sewage.
Sodium	6/9/20	No	N/A	N/A	mg/l	67.8	Erosion of natural deposits; road salt; water softeners; animal waste
Boyack Road Water Treatment Plant (Finished Water)							
Barium	6/18/18	No	2	2	mg/l	0.069	Erosion of natural deposits; discharge of drilling wastes; discharge from metal refineries
Fluoride	6/18/18	No	2.2	N/A	mg/l	0.0845	Erosion of natural deposits; discharge from fertilizer; water additive that promotes strong teeth
Sodium	6/18/18	No	N/A	N/A	mg/l	60.3	Erosion of natural deposits; road salt; water softeners; animal waste
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; discharge from petroleum and metal refineries; discharge from mines
Arsenic	6/18/18	No	10	0	ug/l	0.8	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Chromium	6/18/18	No	100	100	ug/l	9.7	Erosion of natural deposits; discharge from steel and pulp mills
Nitrate	6/11/19	No	10	10	mg/l	0.285	Erosion of natural deposits; Runoff from fertilizer use; Leaching from septic tanks, sewage.
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; discharge of drilling wastes; discharge from metal refineries
Selenium	6/18/18	No	50	50	ug/l	1.8	Erosion of natural deposits; discharge from petroleum and metal refineries; discharge from mines
Zinc	6/9/20	No	5	N/A	mg/l	0.0172	Erosion of natural deposits; mining waste
Manganese	6/9/20	No	300	N/A	ug/l	16.7	Erosion of natural deposits; landfill contamination
Iron	6/9/20	**Yes** [1]	300	N/A	ug/l	**330**	Erosion of natural deposits
Arsenic	6/18/18	No	10	0	ug/l	0.5	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Sodium	6/9/20	No	N/A	N/A	mg/l	57.4	Erosion of natural deposits; road salt; water softeners; animal waste
Chromium	6/18/18	No	100	100	ug/l	6.9	Erosion of natural deposits; discharge from steel and pulp mills
Chloride	6/9/20	No	250	N/A	mg/l	36.5	Erosion of natural deposits; road salt
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; discharge of drilling wastes; discharge from metal refineries
Nickel	6/18/18	No	N/A	N/A	ug/l	3.2	Erosion of natural deposits
Zinc	6/9/20	No	5	N/A	mg/l	0.0125	Erosion of natural deposits; mining waste
Selenium	6/18/18	No	50	50	ug/l	1.6	Erosion of natural deposits; discharge from petroleum and metal refineries; discharge from mines

Iron	6/9/20	**Yes** [1]	300	N/A	ug/l	**490**	Erosion of natural deposits
Manganese	6/9/20	No	300	N/A	ug/l	88.8	Erosion of natural deposits; landfill contamination
Arsenic	6/18/18	No	10	0	ug/l	0.5	Erosion of natural deposits
Sodium	6/9/20	No	N/A	N/A	mg/l	38.4	Erosion of natural deposits; road salt; water softeners; animal waste
Chromium	6/18/18	No	100	100	ug/l	13.9	Erosion of natural deposits; discharge from steel and pulp mills
Sulfate	6/9/20	No	250	N/A	mg/l	63.4	Erosion of natural deposits
Chloride	6/9/20	No	250	N/A	mg/l	59.6	Erosion of natural deposits; road salt
Fluoride	6/18/18	No	2.2	N/A	mg/l	0.0807	Erosion of natural deposits; discharge from fertilizer
Nitrate	6/15/20	No	10	10	mg/l	0.174	Erosion of natural deposits; Runoff from fertilizer use; Leaching from septic tanks, sewage.

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
Plank Road Well							
Radium 226 & 228	6/9/20	No	5	0	pCI/L	1.121	Erosion of natural deposits
Boyack Wells (Raw Water)							
Radium 226 & 228	6/9/20	No	5	0	pCI/L	1.887	Erosion of natural deposits
Vischer Ferry Wells (Raw Water)							
Radium 226 & 228	6/9/20	No	5	0	pCI/L	0.578	Erosion of natural deposits
Kinns Road Well							
Radium 226 & 228	6/9/20	No	5	0	pCI/L	0.415	Erosion of natural deposits

Lead and Copper							
Contaminant	Sample Date	Violation	MCL (or AL)	MCLG	Units	Contaminant Level	Likely Source of Contamination

Distribution System						Range of Detected Levels	90th Percentile [2]	
Lead	June 2020	No	(15)	0	ug/l	ND-9.6	1.3	Corrosion of household plumbing systems; Erosion of natural deposits
Copper	June 2020	No	(1.3)	1.3	mg/l	0.0113-1.31	0.82	Corrosion of galvanized pipes; Erosion of natural deposits
Disinfection Byproducts								
Total Trihalomethanes								
State Farm - Malta	See Note 3	No	80	N/A	ug/l	Range: 41.0 - 71.0	Avg: 53.9	By-Products of drinking water chlorination.
Blue Spruce Water Tank	See Note 3	No	80	N/A	ug/l	Range: 19.0 - 52.0	Avg: 36.8	By-Products of drinking water chlorination.
Knolltop Water Tank	See Note 3	No	80	N/A	ug/l	Range: 18.0 - 65.0	Avg: 38.0	By-Products of drinking water chlorination.
Grooms Tavern	See Note 3	No	80	N/A	ug/l	Range: 26.0 - 39.0	Avg: 39.8	By-Products of drinking water chlorination.
Haloacetic Acids								
State Farm - Malta	See Note 3	No	60	N/A	ug/l	Range: 17.5 - 34.7	Avg: 27.0	By-Products of drinking water chlorination.
Blue Spruce Water Tank	See Note 3	No	60	N/A	ug/l	Range: 19.9 - 38.0	Avg: 30.1	By-Products of drinking water chlorination.
Knolltop Water Tank	See Note 3	No	60	N/A	ug/l	Range: 13.1 - 37.6	Avg: 20.1	By-Products of drinking water chlorination.
Grooms Tavern	See Note 3	No	60	N/A	ug/l	Range: 2.3 - 17.5	Avg: 11.4	By-Products of drinking water chlorination.
Synthetic Organic Contaminants								
Vischer Ferry Wells (Raw Water)								
Perfluorooctanoic acid (PFOA)	10/14/20	No	10	N/A	ng/l	0.681		Released into the environment from widespread use in commercial and industrial applications.
Perfluorooctane sulfonic acid (PFOS)	10/14/20	No	10	N/A	ng/l	2.91		Released into the environment from widespread use in commercial and industrial applications.

[1] During 2020, the CPWA exceeded the MCL for iron at the Kinns Road and Oakwood Blvd. well systems. We are required to present the following information. Iron is essential for maintaining good health. However, too much iron can cause adverse health effects. Drinking water with very large amounts of iron can cause nausea, vomiting, diarrhea, constipation and stomach pain. These effects usually diminish once the elevated iron exposure is stopped. A small number of people have a condition called hemochromatosis, in which the body absorbs and stores too much iron. People with hemochromatosis may be at greater risk for health effects resulting from too much iron in the body (sometimes called "iron overload") and should be aware of their overall iron intake. The New York State standard for iron in drinking water is 0.3 milligrams per liter and is based on iron's effects on the taste, odor and color of the water.

[2] The CPWA took 29 lead and copper samples in 2020. 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, 29 samples were collected at your water system and the 90th percentile value was the 27th highest value. 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.

[3] Sampling for disinfection byproducts was conducted quarterly by the CPWA on 2/11/20, 5/12/20, 8/11/20 and11/10/20 at four locations in the water system. 2020 sample results are shown for each location as a range of results as well as the highest quarterly locational running annual average (LRAA).

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 form 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

City of Troy
Tomhannock Reservoir
Source Water Assessment Summary

The NYS DOH has completed a Source Water Assessment for the Tomhannock Reservoir. The assessment is summarized below. The assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how likely contaminants could enter the reservoir(s). The susceptibility rating is an estimate of the potential for contamination. It does not mean that the water delivered to your home is or will become unsafe to drink. See section "Are there contaminants in our drinking water?" of this report, for information concerning low levels of contaminants in your water.

The assessment found the amount of pasture in the assessment area results in a potential for protozoa contamination. There is also possible contamination susceptibility associated with landfills in the assessment area. It should be noted that hydrologic

characteristics (e.g. basin shape and flushing rates) generally make reservoirs sensitive to existing and new sources of phosphorus and microbial contamination.

A copy of the full Source Water Assessment, including a map of the assessment area, is available for review by contacting us at the number provided in this report.

Town of Glenville Water Supply Table of Detected Contaminants

Contaminant	Date of Sample	Violation (Yes/No)	MCL, (AL) or ((TT))	MCLG	Units	Contaminant Level Detected	Likely Source of Contamination
Inorganic Contaminants							
Nitrate	12/14/2020	No	10	10	mg/l	0.670	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Barium	6/19/2018	No	2	2	mg/l	0.0207	Soil Runoff
Sodium	6/19/2018	No	N/A	N/A	mg/l	24.6 [1]	Naturally present in the environment. Road salt contamination

[1] Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium diets; 270 mg/l for people on moderately restricted sodium diets.

Halfmoon Consolidated Water District

Water Purchased from City of Troy - Table of Detected Contaminants

Contaminant	Date of Sample	Violation (Yes/No)	MCL, (AL) or ((TT))	MCLG	Units	Contaminant Level Detected	Likely Source of Contamination
Microbiological Contaminants							
Turbidity (Highest Value)	8/25/2020	No	((1.0))	N/A	NTU	0.207	Soil Runoff
		No	((95% of Samples <3%))			100%	
Total Organic Carbon	Monthly	No	TT	<=1.0	mg/l	1.3 Avg.	Naturally present in the environment
Inorganic Contaminants							
Fluoride	Daily	No	2.2	N/A	mg/l	Avg. - 0.79 Range - 0.12 - 1.12	Erosion of natural deposits; discharge from fertilizer; water additive that promotes strong teeth
Iron	Weekdays	No	300	N/A	ug/l	Avg. - 0.02 Range - ND - 50	Naturally present in the environment
Manganese (Avg)	Weekdays	No	300	N/A	ug/l	Avg. - 17 Range - ND - 40	Naturally present in the environment
Sodium	9/18/2020	No	270	N/A	mg/l	12.3[1]	Naturally present in the environment. Road salt contamination
Sulfate	7/1/2020	No	250	N/A	mg/l	12	Naturally present in the environment
Chloride	7/1/2020	No	250	N/A	mg/l	17.9	Naturally present in the environment. Road salt contamination
Barium	7/1/2020	No	2	2	mg/l	0.301	Naturally present in the environment
Radiological Contaminants							

Gross Beta Particles	3/11/2016	No	4	0	pCi/l	0.681	Erosion of natural deposits; discharge from fertilizer; water additive that promotes strong teeth
Radium 226	3/11/2016	No	5	0	pCi/l	0.456	Naturally present in the environment
Uranium	3/11/2016	No	30	0	ug/l	0.167	Naturally present in the environment
Unregulated Contaminant Monitoring Rule (Samples from 1/10/18, 4/25/18, 7/17/18 & 10/23/18)							
Manganese	Quarterly	No	300	N/A	ug/l	1.27 - 3.36	Naturally present in the environment
HAA9 range	Quarterly	N/A	N/A	N/A	ug/l	5.8 - 64.3	Byproduct of drinking water chlorination
HAA6 range	Quarterly	N/A	N/A	N/A	ug/l	0.724 - 8.66	Byproduct of drinking water chlorination

[1] Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium diets; 270 mg/l for people on moderately restricted sodium diets.