ANNUAL WATER QUALITY REPORT
CLIFTON PARK WATER AUTHORITY
May 2022

Contained on the following pages is the 2021 Annual Water Quality Report for the Clifton Park Water Authority (PWSID# 4500175). The CPWA system has 13,880 service connections (approx. 35,000 people). This report will be made available to our customers each year providing analytical data compiled during the previous year. This report is a requirement of the NYS Department of Health (DOH). It is designed to allow our customers to review the sample results from their water supply and compare those results with standards established by the DOH. Should you have any questions or comments regarding this report or wish to address the Authority regarding any related issues, you may contact the Authority Administrator, Mr. Donald Austin, during business hours at 383-1122. The Authority also holds a public meeting once a month at the Authority offices located at 661 Clifton Park Center Road, just west of Town Hall (PLEASE CALL TO CONFIRM DATE AND TIME).

Where Does Our Water Come From?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and can pick up substances from the presence of animals or from human activity. Contaminants that may be present in source water include: **Microbial contaminants**, such as viruses and bacteria which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. **Inorganic Contaminants**, such as salts and metals which can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming. **Pesticides and Herbicides** may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses. **Organic Chemical contaminants,** including synthetic and volatile organic chemicals, are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Ground water wells are the predominant source of water in the Authority's system. We have wells located throughout town at 6 different sites listed below:

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

The Vischer Ferry Preserve wells are considered ground water under the direct influence of surface water (GWUDI). Additional treatment is performed on this water to ensure removal of certain surface water organisms.

The majority of our 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. Cartridge filters are also used to provide adequate treatment of the GWUDI wells in the Preserve. This source is pumped on a year-round basis because of the improved quality. Also pumped year-round are: the Berry Farm, Oakwood and Plank 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.

In 2021, we purchased a portion of our water from the Saratoga County Water Authority. The water source for the SCWA is the Hudson River. Water treatment consists of addition of a coagulant and

filtration through 0.1 micron membrane filters. Caustic soda is added for pH adjustment and orthophosphates are added for corrosion control. Sodium hypochlorite is added for disinfection and to maintain a residual through the transmission system. Granular activated carbon filters are used on the finished water to adsorb natural organic compounds, taste and odor compounds and synthetic organic chemicals.

The CPWA also purchased a portion of its water from the Town of Glenville in 2021. 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.

In 2021, the CPWA also purchased a portion of its water from the Town of Halfmoon. The Town of Halfmoon purchases water from the Saratoga County Water Authority and from the City of Troy. The City of Troy draws its water from a "surface water" supply, the spring fed Tomhannock Reservoir. It is located to the northeast of 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.

Restricted or Limited Use Sources

Our water supply includes groundwater from 8 wells on 6 different sites. Most of these sources are in use year-round. However, due to limitations in the production capabilities, or due to less than favorable water qualities, some sources are limited to backup use or have been removed from service. The backup sources are generally used during periods of high demand or at times when one or more of our everyday sources are out of service for repair or maintenance.

The Clifton Park Water Authority has an interconnection with the Town of Halfmoon water system at The Crossing. The CPWA purchased 14,000 gallons of water from the Town of Halfmoon in 2021. The Authority also has an interconnection with the Town of Glenville and the Saratoga County Water Authority. The CPWA purchased a total of 373,486,000 gallons of water from the Saratoga County Water Authority in 2021. The CPWA purchased a total of 4,673,000 gallons of water from the Town of Glenville in 2021.

Source Water Assessment Summary

The NYS Department of Health 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. For ground water sources, the assessment evaluated risk of contamination in two zones: an inner zone, of smaller radius around the well, considered more sensitive; and an outer zone, extending either 1 mile from the well, or as limited by a hydrogeologic barrier (such as a change in soil or rock layer or the presence of a water body). The higher of these ratings was used as the overall rating for the source. **The susceptibility rating is an estimate of the potential for contamination of the source water, and does not mean that the water delivered to consumers is, or will be contaminated**. See the spreadsheet that follows for a list of contaminants detected. The source water assessments provide resource managers with additional information for protecting source waters in the future.

Our source of drinking water is derived from ground water (drilled wells) and ground water under the direct influence of surface water sources. The source water assessment has rated most of our ground water sources as having an elevated susceptibility to microbial and 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, primarily due to the agricultural land use near the well. While the source water assessment rates our wells as being susceptible to microbials, please note that our water is disinfected, and the Vischer Ferry wells filtered, to ensure that the finished water delivered to your home meets the New York State's drinking water standards for microbial contamination. Public notification is required if regulated contaminants are found in our water, and increased monitoring may result.

The Saratoga County Water Authority source water assessment states that hydrologic characteristics generally make rivers highly sensitive to existing and new sources of nitrate, phosphorus, and microbial contamination. This does not mean that source water contamination has or will occur, and the SCWA provides treatment and regular monitoring to ensure that the water delivered to customers meets all applicable standards.

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.

The City of Troy source water 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.

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. A copy of this assessment, including a map of the assessment area, can be obtained by contacting this office.

Are There Contaminants in Our Drinking Water?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

Information on Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women, infants and young children. It is possible that lead levels at your home may be higher than at other

homes in the community as a result of materials used in your home's plumbing. 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 the 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- 426-4729) or at http://.epa.gov/safewater/lead.

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 their routine sampling, eight samples were collected of untreated Hudson River source water and analyzed for Cryptosporidium oocysts. Of these samples, no oocysts were detected. The Saratoga County Water Authority utilizes membrane filtration technology which removes these contaminants at higher rates than conventional water treatment technologies. Also during 2018, the Clifton Park Water Authority collected 12 samples from the Vischer Ferry wells and analyzed for Cryptosporidium oocysts. There were no oocysts found in any of these samples. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Cryptosporidium may cause cryptosporidiosis, a gastrointestinal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their health care provider regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

Information on Giardia

Giardia is a microbial pathogen present in varying concentrations in many surface waters and groundwater under the influence of surface water. Giardia is removed/inactivated through a combination of filtration and disinfection or by disinfection. During 2018, as part of their routine sampling, eight samples were collected of untreated Hudson River source water and analyzed for Giardia cysts. Of these samples, seven samples showed a total of seventy-nine cysts and one sample showed no cysts. The Saratoga County Water Authority utilizes membrane filtration technology which removes these contaminants at higher rates than conventional water treatment technologies. Also during 2018, the Clifton Park Water Authority collected 12 samples from the Vischer Ferry wells and analyzed for Giardia cysts. There were no cysts found in any of these samples. Testing performed by the SCWA indicates the presence of Giardia in their (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.

Detected and Non-Detected Contaminants

In accordance with State regulations, the Clifton Park Water Authority routinely monitors your drinking water for various contaminants. Your water is tested for inorganic contaminants, nitrate, lead and copper, volatile organic contaminants, synthetic organic contaminants, and disinfection byproducts. Additionally, the CPWA analyzes 40 samples from throughout the distribution system for coliform bacteria each month. Only the contaminants that have been detected in your drinking water are included in the Table of Detected Contaminants. 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. Therefore, some of the data, though representative of the water quality, is more than one year old.

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 HN/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

Monitoring Violations

The CPWA had a monitoring violation in 2021 for a failure to take all required lead and copper samples. The CPWA took the required number of samples, but a lab accident caused two of the 30 samples taken to be unusable. By the time the issue was relayed to the CPWA, the monitoring period had expired and we were unable to resample.

CPWA System Improvements in 2021

In 2021, the CPWA began construction of a pumpstation at its connection with the Saratoga County Water Authority. This project will increase the capacity at that connection and is expected to be online in 2022.

Why Save Water and How Do We Avoid Wasting It?

Although the CPWA system has an adequate amount of supply to meet the present demands of the system, there are a number of reasons why it is important to conserve water:

- Saving water saves energy and some of the costs associated with both of these necessities of life.
- Saving water reduces the cost of energy required to pump water and the need to construct costly new wells, pumping systems, and water towers.
- Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential fire-fighting needs are met.

You can play a role in conserving water and saving yourself money in the process by becoming conscious of the amount of water your household is using, and by looking for ways to use less whenever you can. It is not hard to conserve water. Conservation tips:

- Use low flow shower heads and faucets
- Repair all leaks in your plumbing system
- Water your lawn sparingly early morning or late evening
- Do only full loads of wash and dishes
- Wash your car with a bucket and hose with a nozzle
- Don't cut the lawn too short; longer grass saves water

Definitions

The following definitions apply to the tables on the following pages for the Clifton Park Water Authority and Saratoga County Water Authority systems:

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 the addition of a disinfectant is necessary for the 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.
Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.
Milligrams Per Liter (mg/l): Corresponds to one part of liquid in one million parts of liquid (parts per million – ppm).
Micrograms Per Liter (ug/l): Corresponds to one part of liquid in one billion parts of liquid (parts per billion – ppb).
Picocuries Per Liter (pCi/l): Measure of radioactivity in water (curie) – pico corresponds to one part of liquid in one trillion parts of liquid.
Distribution System Maximum Residence Time (DSMRT): A location within the water distribution system that represents the point at which water from a particular source has resided in the water system for the longest duration.
Water Treatment Plant (WTP): Any facility at which water is taken directly from the source, treated and pumped into the system.

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: 2.4 - 3.6	Avg: 2.85	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	6/30/21	No	10	10	mg/l	0.16	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	6/30/21	No	N/A	N/A	mg/l	88	Erosion of natural deposits; road salt; water softeners; animal waste
Zinc	6/30/21	No	5	N/A	mg/l	0.025	Erosion of natural deposits; mining waste
Sulfate	6/30/21	No	250	N/A	mg/l	31	Erosion of natural deposits
Chloride	6/30/21	No	250	N/A	mg/l	200	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
Iron	6/30/21	No	300	N/A	ug/l	190	Erosion of natural deposits
Manganese	6/30/21	No	300	N/A	ug/l	77	Erosion of natural deposits; landfill contamination
Plank Road Well							
Barium	6/30/21	No	2	2	mg/l	0.31	Erosion of natural deposits; discharge of drilling wastes; discharge from metal refineries
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
Nitrate	6/30/21	No	10	10	mg/l	0.041	Erosion of natural deposits; Runoff from fertilizer use; Leaching from septic tanks, sewage.
Chloride	6/9/20	No	250	N/A	mg/l	35.2	Erosion of natural deposits; road salt
Vischer Ferry Preserve Wells (Raw Water)							
Manganese	6/29/21	No	300	N/A	ug/l	2800	Erosion of natural deposits; landfill contamination
Sodium	6/29/21	No	N/A	N/A	mg/l	18	Erosion of natural deposits; road salt; water softeners; animal waste
Nickel	6/29/21	No	N/A	N/A	ug/l	2.5	Erosion of natural deposits
Barium	6/29/21	No	2	2	mg/l	0.026	Erosion of natural deposits; discharge of drilling wastes; discharge from metal refineries
Sulfate	6/29/21	No	250	N/A	mg/l	15.1	Erosion of natural deposits
Chloride	6/29/21	No	250	N/A	mg/l	40.3	Erosion of natural deposits; road salt
Nitrate	6/29/21	No	10	10	mg/l	0.058	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
Boyack Wells (Raw Water)							
Nitrate	6/29/21	No	10	10	mg/l	0.13	Erosion of natural deposits; Runoff from fertilizer use; Leaching from septic tanks, sewage.
Iron	6/29/21	No	300	N/A	ug/l	1100	Erosion of natural deposits
Manganese	6/29/21	No	300	N/A	ug/l	400	Erosion of natural deposits; landfill contamination
Barium	6/29/21	No	2	2	mg/l	0.059	Erosion of natural deposits; discharge of drilling wastes; discharge from metal refineries
Nickel	6/29/21	No	N/A	N/A	ug/l	2.4	Erosion of natural deposits
Sodium	6/29/21	No	N/A	N/A	mg/l	60	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	6/29/21	No	N/A	N/A	mg/l	35	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
Sulfate	6/29/21	No	250	N/A	mg/l	51.8	Erosion of natural deposits
Chloride	6/29/21	No	250	N/A	mg/l	76	Erosion of natural deposits; road salt
Nitrate	6/11/19	No	10	10	mg/l	0.285	Erosion of natural deposits; Runoff from fertilizer use; Leaching from septic tanks, sewage.
Kinns Road Well							
Barium	6/30/21	No	2	2	mg/l	0.46	Erosion of natural deposits; discharge of drilling wastes; discharge from metal refineries
Zinc	6/30/21	No	5	N/A	mg/l	0.054	Erosion of natural deposits; mining waste
Manganese	6/30/21	No	300	N/A	ug/l	0.021	Erosion of natural deposits; landfill contamination
Iron	6/30/21	**Yes**[1]	300	N/A	ug/l	**630**	Erosion of natural deposits
Sodium	6/30/21	No	N/A	N/A	mg/l	44	Erosion of natural deposits; road salt; water softeners; animal waste
Chloride	6/30/21	No	250	N/A	mg/l	35	Erosion of natural deposits; road salt
Nitrate	6/30/21	No	10	10	mg/l	0.054	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
Oakwood Blvd Well							
Barium	6/29/21	No	2	2	mg/l	0.088	Erosion of natural deposits; discharge of drilling wastes; discharge from metal refineries
Nickel	6/29/21	No	N/A	N/A	ug/l	1.2	Erosion of natural deposits
Zinc	6/9/20	No	5	N/A	mg/l	0.0125	Erosion of natural deposits; mining waste
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
Sodium	6/9/20	No	N/A	N/A	mg/l	38.4	Erosion of natural deposits; road salt; water softeners; animal waste
Sulfate	6/29/21	No	250	N/A	mg/l	62.2	Erosion of natural deposits
Chloride	6/29/21	No	250	N/A	mg/l	106	Erosion of natural deposits; road salt
Nitrate	6/29/21	No	10	10	mg/l	0.092	Erosion of natural deposits; Runoff from fertilizer use; Leaching from septic tanks, sewage.
Radiological Contaminants							
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							
Distribution System						Range of Detected Levels	90th Percentile [2]
Lead	June 2021	No	(15)	0	ug/l	ND-7.2	1.2
Copper	June 2021	No	(1.3)	1.3	mg/l	ND-1.14	0.91

Disinfection Byproducts								
Contaminant	Sample Date	Violation	MCL (or AL)	MCLG	Units	Range of Detected Levels	Annual Average	Likely Source of Contamination
Total Trihalomethanes								
State Farm - Malta	See Note 3	No	80	N/A	ug/l	Range: 39.0 - 79.0	Avg: 66.0	By-Products of drinking water chlorination.
Blue Spruce Water Tank	See Note 3	No	80	N/A	ug/l	Range: 20.0 - 44.0	Avg: 37.5	By-Products of drinking water chlorination.
Knolltop Water Tank	See Note 3	No	80	N/A	ug/l	Range: 11.0 - 48.0	Avg: 37.5	By-Products of drinking water chlorination.
Grooms Tavern	See Note 3	No	80	N/A	ug/l	Range: 22.0 - 44.0	Avg: 33.8	By-Products of drinking water chlorination.
Haloacetic Acids								
State Farm - Malta	See Note 3	No	60	N/A	ug/l	Range: 22.5 - 49.5	Avg: 32.9	By-Products of drinking water chlorination.
Blue Spruce Water Tank	See Note 3	No	60	N/A	ug/l	Range: 25.4 - 94.0	Avg: 49.3	By-Products of drinking water chlorination.
Knolltop Water Tank	See Note 3	No	60	N/A	ug/l	Range: 7.1 - 41.0	Avg: 21.2	By-Products of drinking water chlorination.
Grooms Tavern	See Note 3	No	60	N/A	ug/l	Range: 6.8 - 13.9	Avg: 10.2	By-Products of drinking water chlorination.
Synthetic Organic Contaminants								
Kinns Road Well								
bis(2-ethylhexyl)phthalate	6/30/21	No	6	0	ug/l	1.1		Released into the environment from widespread use in commercial and industrial applications.
Vischer Ferry Wells (Raw Water)								
Perfluorobutanesulfonic Acid	See Note 4	No	N/A	N/A	ng/l	Range: 0.839 - 1.12	Avg: 0.98	Released into the environment from widespread use in commercial and industrial applications.
Perfluorohexanesulfonic Acid	See Note 4	No	N/A	N/A	ng/l	Range: 0.948 - 1.15	Avg: 1.05	Released into the environment from widespread use in commercial and industrial applications.
Perfluorohexanoic Acid (PFH	See Note 4	No	N/A	N/A	ng/l	Range: ND - 0.401	Avg: 0.201	Released into the environment from widespread use in commercial and industrial applications.
Perfluorooctanoic Acid (PFO	See Note 4	No	10	N/A	ng/l	Range: ND - 0.830	Avg: 0.277	Released into the environment from widespread use in commercial and industrial applications.
Perfluorooctane sulfonic acid	See Note 4	No	10	N/A	ng/l	Range: 2.58 - 4.15	Avg: 3.24	Released into the environment from widespread use in commercial and industrial applications.

[1] During 2020, the CPWA exceeded the MCL for iron at the Oakwood well. In 2021, the CPWA exceeded the MCL for iron at the Kinns Road well. 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 28 lead and copper samples in 2021. 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. 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 2/10/21, 5/11/21, 8/12/21 and 11/16/21 at four locations in the water system. 2021 sample results are shown for each location as a range of results as well as the highest quarterly locational running annual average (LRAA).

[4] Sampling for Perfluorinated Alkyl Acids was done on 1/20/21, 4/20/21 and 10/27/21.

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	

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	6/8/2021	No	((1.0))	N/A	NTU	0.117	Soil Runoff
Transmission System	4/6/2021	No	((5.0))	N/A	NTU	0.18	Soil Runoff
Total Organic Carbon (TOC)	2021	No	TT	N/A	mg/l	4.38 (Avg. Raw) 1.88 (Avg. Treated)	Naturally present in the environment
Inorganic Contaminants							
Perfluorooctanoic Acid (PFOA)	2/17/2021	No	10	N/A	ng/l	0.612	Released into the environment from widespread use in commercial and industrial applications
Perfluorooctane Sulfonic Acid (PFOS)	2/17/2021	No	10	N/A	ng/l	0.504	Released into the environment from widespread use in commercial and industrial applications
Nitrate	2/23/2021	No	10	10	mg/l	0.14	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	2/23/2021	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.

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	10/15/2021	No	10	10	mg/l	0.23	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Barium	10/20/2021	No	2	2	mg/l	0.024	Soil Runoff
Sodium	9/15/2021	No	N/A	N/A	mg/l	30.0 [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	Daily	No	((5.0))	N/A	NTU	Avg. - 0.54 Range - 0.07 - 2.8	Soil Runoff
Inorganic Contaminants							
Fluoride	Daily	No	2.2	N/A	mg/l	Avg. - 0.81 Range - 0.16 - 0.96	Erosion of natural deposits; discharge from fertilizer; water additive that promotes strong teeth
Nitrate	7/1/2021	No	300	N/A	ug/l	0.1	Naturally present in the environment
Sodium	7/1/2021	No	270	N/A	mg/l	11.7	Naturally present in the environment. Road salt contamination
Sulfate	7/1/2021	No	250	N/A	mg/l	18.3	Naturally present in the environment
Chloride	7/1/2021	No	250	N/A	mg/l	22.8	Naturally present in the environment. Road salt contamination
Barium	7/1/2021	No	2	2	mg/l	0.0302	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

[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.

2021 PUMPAGE AND FINANCIAL STATISTICS

TOTAL GALLONS PUMPED	1,262,343,000
QUANTIFIABLE LOSSES:	
Flushing Program	25,000,000
Flushing New Mains, Etc	2,000,000
TOTAL GALLONS BILLED	1,103,284,500
TOTAL GALLONS ACCOUNTED FOR	1,130,284,500
LOST AND UNACCOUNTED FOR WATER	10.5%
AVERAGE DAILY PUMPAGE FOR 2021	3.46 MGD
PEAK DAILY PUMPAGE – 5/23/2021	7.57 MG

FINANCIAL SUMMARY

2021 WATER SALES	$4,605,318
BASIC SERVICE CHARGE	$1,054,644
ALL OTHER SOURCES	$ 813,277
TOTAL REVENUES	$6,473,239

EXPENDITURES

TOTAL OPERATING EXPENSES	$3,739,200
DEBT SERVICE	$1,987,413
RESERVE FOR CAPITAL PROJECTS	$ 746,626
TOTAL EXPENDITURES	$6,473,239

Average Annual Residential Charge For Water Service

The average residential customer on the Clifton Park Water Authority system used 75,000 gallons per year in 2021 at a cost of $371.25. In 2021, the water rate for CPWA customers was $4.03 per thousand gallons, with a quarterly basic service charge of $17.25.