

Annual Drinking Water Quality Report for 2023

Town of Schaghticoke

290 Northline Road, Schaghticoke, NY 12121

(Public Water Supply Identification Number WD#1 NY4100046, WD#2 NY4100048 and WD#3 NY4100062)

INTRODUCTION

To comply with State regulations, the Town of Schaghticoke, 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. We are very pleased to provide you with this year's Annual Water Quality Report. Last year, we conducted tests for over 80 contaminants. We detected 1 of those contaminants at a level higher than the State allows. As we told you at the time, our water temporarily exceeded a drinking water standard and we modified our treatment process to rectify this problem. This report is an overview 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. Shawn M. Cross, Operator in Responsible Charge (ORC), 290 Northline Drive, Melrose, NY 12121, Telephone (518) 753-9982 or (518) 461-3350.* We want our valued customers to be informed about their water service. If you want to learn more, please attend any of our regularly scheduled Town Board meetings. They are held on the 2nd Wednesday of each month, 7:00 PM at the *Town Hall, 290 Northline Road; Telephone (518) 753-6915.* If you want to learn more, please call us.

WHERE DOES OUR WATER COME FROM?

The Town of Schaghticoke purchases all of its water. Water District (WD) #2 purchases its water from the City of Mechanicville. The City of Mechanicville operates a surface water filtration plant. Two reservoirs feed this system: The Mechanicville Reservoir, which is the primary source and a small downstream terminal reservoir. The Mechanicville Water Treatment Plant is a U.S. Filter Modular Aquarius (AQ-300B) which consists of flocculation, clarification and filtration for water treatment. The plant is automatically controlled and packaged in (3) steel tanks producing 2,100 gallons/minute. The treatment process consists of coagulation using polyaluminum chloride to cause small particles to stick together when the water is mixed forming larger heavier particles. Sedimentation allows the newly formed larger particles to settle out naturally in inclined tube settlers. The mixed media filter bed consists of anthracite coal, silica sand and garnet sand which removes smaller particles by trapping them in the spaces between the sand grains. Also used in the treatment process is sodium permanganate which is used for taste and odor control, color reduction and iron and manganese oxidation. The filtered water from the treatment unit is fed into the clearwell. The water is then pumped out of the clearwell and chlorinated with liquid sodium hypochlorite. At this point the water flows into two (2) chlorine contact tanks. They are circular; epoxy coated steel bolted steel and concrete tanks with interior baffling and a storage capacity of 250,000 gallons each. The baffling in the tank provides increased detention time and adequate time for the water to be disinfected by the chlorine.

Mechanicville 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 table of Detected Contaminants for SCWA on page 10.

Consolidated Water District #1 (formerly Water Districts 1, 4, 4B, 5 and 6) and Water District #3 purchase water from the City of Troy. We receive water that has been treated at the Troy Water Treatment Plant (TWTP). 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 TWTP, a complete treatment facility. In an effort to lower the formation of disinfection byproducts (DBBPs), TWTP has started to add 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 DBBPs 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 disinfection byproducts when it reacts with chlorine but unlike chlorine, chlorine dioxide does not form DBBPs like THM's or HAA5's. Chlorine dioxide is fed year-round. Like Mechanicville, Troy has the same water treatment processes and additionally they add fluoride at low levels to protect teeth against dental cavities.

Additionally, liquid sodium hypochlorite is injected at the Melrose Pump Station, before being pumped to the Storage Facility. Sodium hypochlorite solution used to prevent the possibility of bacterial contamination. This is added so that an adequate chlorine residual is maintained throughout the distribution system north of Grants Hollow. This is fed year-round and monitored daily.

In WD#1 we have two storage tanks. The Speigletown Tank is 180,000-gallon reinforced concrete structure consisting of 2 separate storage compartments of 90,000 gallons each. At present daily usage, this capacity would support 2.5 to 3 days of usage, pending no emergency usage. The tank is located off Fogarty Road on the hilltop overlooking Speigletown. A chain-link fence at the site plus gates at the highway leading to the tank site secure the tank itself. The Melrose Tank is a steel cylindrical 140,000-gallon tank located on a hill, east of the intersection of Valley Falls Road and Route 40. It provides a 3-day supply barring any emergency use, based on present usage.

In general, the sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and EPA prescribe regulations, which limit the amount of certain contaminants in water, provided by public water systems. The State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

FACTS AND FIGURES

Consolidated Water District #1 provides water through 1,288 service connections to a population of approximately 3,220 persons. The total amount of water purchased for all three districts was 102,915,899 gallons and the amount delivered was 66,485,955 gallons with a loss of 16,862,981 gallons 25 % or unaccounted water in 2023. Unaccounted or non-revenue producing water can be attributed to water usage for fire protection, flushing water main breaks and leaks. Our water system's average daily demand is approximately 281,961 gallons our single highest day was 327,635 gallons. The annual charge per one thousand gallons of water delivered is \$5.20 per 1000 gallons for Consolidated WD #1. Water District #2 provides water through 188 service connections to a population of approximately 564 persons. The annual charge for water is \$6.11 per 1000 gallons. Water District #3 provides water through 366 service connections to a population of approximately 1,098 persons. The annual charge per one thousand gallons of water delivered is \$5.20 per 1000 gallons.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

In accordance with State regulations, the Town of Schaghticoke routinely monitors your drinking water for numerous contaminants. We test your drinking water for inorganic contaminants, radiological contaminants, lead and copper, nitrate, volatile organic contaminants, and synthetic organic contaminants. In addition, we test 3 samples for coliform bacteria every month from the Consolidated Water District. 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 and is noted.

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 Rensselaer County Department of Health (518) 270-2711.

WHAT DOES THIS INFORMATION MEAN?

As you can see from the Table on pages 4-8 , we exceeded the MCL for the Trihalomethanes for Water District #2 at 2 sites in the fourth quarter and are required to furnish the following information:

Trihalomethanes

Some studies suggest that people who drink chlorinated water (which contains trihalomethanes) or water containing elevated levels of trihalomethanes for long periods of time may have an increased risk for certain health effects. For example, some studies of people who drank chlorinated drinking water for 20 to 30 years show that long term exposure to disinfection by-products (including trihalomethanes) is associated with an increased risk for certain types of cancer. A few studies of women who drank water containing trihalomethanes during pregnancy show an association between exposure to elevated levels of trihalomethanes and small increased risks for low birth weights, miscarriages and birth defects. However, in each of the studies, how long and how frequently people actually drank the water, as well as how much trihalomethanes the water contained is not known for certain. Therefore, we do not know for sure if the observed increases in risk for cancer and other health effects are due to trihalomethanes or some other factor. The individual trihalomethanes chloroform, bromodichloromethane and dibromochloromethane cause cancer in laboratory animals

exposed to high levels over their lifetimes. Chloroform, bromodichloromethane and dibromochloromethane are also known to cause effects in laboratory animals after high levels of exposure, primarily on the liver, kidney, nervous system and on their ability to bear healthy offspring. Chemicals that cause adverse health effects in laboratory animals after high levels of exposure may pose a risk for adverse health effects in humans exposed to lower levels over long periods of time.

Trihalomethanes are formed by the reaction of chlorine and organic material in the water. Since our water is supplied by the City of Troy a surface water supply has more organic material supplied by decaying leaves and vegetation that gets into their reservoir. When the water is disinfected with chlorine, one byproduct that is produced are the trihalomethanes (THM). The amount formed is dependent on the amount of chlorine, the time the chlorine is in contact with the organic material and the water temperature. In areas in the distribution system where there is low flow or not frequent turnover with freshly produced water, we find higher THM concentrations. By altering any of the parameters responsible for THM production can reduce the THM concentrations. We instituted a hydrant flushing program to move the water in low flow areas and reduce the contact time with chlorine to reduce THM levels. This brought us back to compliance with the THM MCL.

Under the LT2 (Long Term Enhanced Surface Water Treatment Rule, small surface water or GUIDI systems could monitor for E. coli biweekly for 1 year instead of performing more costly Cryptosporidium/Giardia testing to determine treatment requirements for their water sources. The City of Mechanicville performed this monitoring on their Upper & Lower Reservoirs from 10/2/17 through 9/17/18. An average E. coli concentration greater than 100/100 ml of sample would trigger Cryptosporidium and Giardia monitoring for 24 months. The average for the Lower Reservoir was 264 E. coli/100 ml and this triggered Cryptosporidium/Giardia monitoring which commenced in September 2018.

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 January 2020 through July 2020, as part of our sampling plan, twelve samples of our Lower Reservoir source water samples were collected and analyzed for Giardia cysts. Of these samples 8 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.

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 January 2020 through July 2020, as part of our sampling plan, Lower Reservoir twelve source water samples were collected and analyzed for Cryptosporidium oocysts. 3 samples of the 8 samples collected was presumed positive for Cryptosporidium, and was confirmed positive. Therefore, our monitoring indicates the presence of Cryptosporidium in our source water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Cryptosporidium may cause cryptosporidiosis, a gastrointestinal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their health care provider regarding appropriate precautions to take to avoid infection.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Although our drinking water met or exceeded state and federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with 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 microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2023, our system was in compliance with applicable State drinking water operating requirements. We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking meets health standards. We did not collect the required amount of lead and copper samples in the first 6 months of 2023 for Schaghticoke WD#1 and WD#3 and were issued Notice of Violation.

Copper

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

Lead

Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Although our drinking water met or exceeded state and federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with 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).

INFORMATION ON FLUORIDE ADDITION

Fluoride is being added to the water supply after it was suspended in June 2021 through 2022. The cause of the interruption was due to supply chain issues.

INFORMATION ON LEAD

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 Town of Halfmoon is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact Shawn Cross, at the Town of Schaghticoke, (518) 753-9982. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <http://www.epa.gov/safewater/lead>.

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

The SWAP summaries for the City of Troy, City of Mechanicville and Saratoga Water Authority are attached to the end of this report.

WATER CONSERVATION TIPS

The Town of Schaghticoke encourages water conservation. There are a lot of things you can do to conserve water in your own home. Conservation tips include:

- Only run the dishwasher and clothes washer when there is a full load
- Use water saving showerheads
- Install faucet aerators in the kitchen and the bathroom to reduce the flow from 4 to 2.5 gallons per minute
- Water gardens and lawn for only a couple of hours after sunset

CAPITAL IMPROVEMENTS

There were no major projects completed in 2022 although some water main, valves and hydrants were repaired or replaced. There are no improvements planned for Consolidated Water District #1 in 2023.

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, which are the heart of our community. Please call our office if you have questions.

SCHAGHTICOKE WATER DISTRIC #2 PWS ID# NY4100048 WATER PURCHASED FROM CITY OF MECHANICVILLE PWSID#NY4500166 TABLE OF DETECTED CONTAMINANTS							
Contaminant	Violation Y/N	Date of Sample	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants							
Turbidity ¹ (Highest Turbidity)	N	10/26/23	0.206 ²	NTU	N/A	TT=1.0 NTU	Soil runoff
1/1/23-12/31/23			100%			TT=95% samples < 0.3	
Inorganic Contaminants							
Barium	N	6/15/23	11.2	µg/l	2000	MCL=2000	Barium
Chloride	N	6/15/23	32.8	µg/l	N/A	MCL=250	Naturally occurring or indicative of road salt contamination.
Chromium	N	6/15/23	11.2	µg/l	100	MCL=100	Discharge from steel and pulp mills; Erosion of natural deposits
Copper WD#2 Range of copper concentrations	N	6/7/23- 6/21/23	0.288 ³ ND-0.500	mg/l	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Copper WD#2 Range of copper concentrations	N	11/7/23- 12/7/23	0.156 ⁴ 0.0168- 1.50				
Lead WD#2 Range of lead concentrations	N	6/7/23- 6/21/23	3.1 ⁵ ND-6.7	µg/l	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Lead WD#2 Range of lead concentrations	N	11/7/23- 12/7/23	5.9 ⁶ ND-31				
Manganese	N	6/15/23	4.6	µg/l	N/A	MCL=300	Naturally occurring, Indicative of landfill contamination.
Nickel	N	6/15/23	1.3	µg/l	N/A	N/A	Geology; Naturally occurring
Nitrate (WD#2)	N	12/13/23	0.046	mg/l	10	MCL=10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Odor	N	6/15/23 8/1/23	4 ND	units	N/A	MCL=3	Natural sources
pH	N	6/15/23	7.47	units		6.5-8.5	
Sodium ⁷	N	6/15/23	17.8	mg/l	N/A	N/A	Geology; Road Salt
Sulfate	N	6/15/23	7.53	mg/l	N/A	MCL=250	Geology
Disinfection Byproducts (Quarterly samples)							
Stage 2 Haloacetic Acids (HAA5] (Average) ⁸ Range of values for HAA5	N	2/7/23 5/9/23 8/8/23 11/14/23	Wever Petroleum 48.1 31-86.1 Hemstreet Park 30.3 3.91-49	µg/l	N/A	MCL=60	By-product of drinking water disinfection needed to kill harmful organisms.
Stage 2 TTHM Total Trihalomethanes (Average) ⁸ Range of values for TTHM	Y	2/7/23 5/9/23 8/8/23 11/14/23	Wever Petroleum 88 53-144 Hemstead Park 92.8 58.7-149	µg/l	N/A	MCL=80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains organic matter.
Chlorine Residual (average) range	N	Daily testing	0.59 0.22-2.20	mg/l	MRDLG	MRDL	Used in the treatment and disinfection of drinking water
					N/A	MCL=4	
Total Organic Carbon ⁹							
Total Organic Carbon Monthly Compliance Ratio	N	Monthly 2023	1.29-1.50	N/A	Compliance ratio >=1	TT	Organic material both natural and man-made; Organic pollutants, decaying vegetation.
Raw Water E. coli Testing Round 2 LT2ESESWTR ¹⁰ (Monthly for January- July 2020)							

Lower Reservoir 2.5 Million Gallons average range	N/A	1/1/20-7/31/20	104 34-308	N/A	E.coli/10 0 ml	Average>100 E.coli/100ml	Human & animal fecal contamination
FOOTNOTES- 1. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. Level detected represents the highest level detected. Distribution system turbidity performed 5 times a week with 0.84 NTU being highest level detected and 0.35 NTU being the average level detected 2. This number represents the weighted average of the 3-individual filter turbidimeters. 3. The level presented represents the 90 th percentile of 20 test sites. 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 copper values detected at your water system. In this case, 20 samples were collected at your water system and the 90 th percentile value was the 18 th sample with 3 rd highest value (level detected 0.288 mg/l). The Action Level for copper was not exceeded at any of the sites tested. 4. The level presented represents the 90 th percentile of 20 test sites. The copper level was exceed at 1 site in the Nov-December 2023 samples 5. The level presented represents the 90 th percentile of the 20 samples collected. . In this case, 20 samples were collected at your water system and the 90 th percentile value was the 18 th sample with the 3 rd highest value (level detected 3.1 µg/l). The action level for lead was not exceeded at any of the sites tested. 6. The level presented represents the 90 th percentile of 20 test sites. The lead level was exceed at 1 site in the Nov-December 2023 samples 7. Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets. 8. The average is based on a Locational Running Annual Average (LRAA). The average result shown for each of the two sites is the highest LRAA that occurred during 2023. The range of results for each site are also shown. The highest LRAAs for Wever Petroleum was in the 4 th quarter for HAA5 and THM, while the highest LRAAs for Hemstreet Park was in the 3 rd quarter for the HAA5s and the 4 th quarter for the THMs. 9. The Interim Enhanced Surface Water Treatment Rule (IESWTR) requires monitoring of raw and finished water Total Organic Carbon (TOC). Depending on the raw water alkalinity value, proper water treatment should remove between 15% to 50% of the raw water TOC thus reducing the amount of disinfection byproducts produced. 10. Under the LT2 (Long Term Enhanced Surface Water Treatment Rule we monitored for Cryptosporidium and Giardia for the Lower Reservoir monthly along with a monthly <i>E. coli</i> sample. We present the range of results for 2022 in the table.							
Glossary <i>Non-Detects (ND)</i> - laboratory analysis indicates that the constituent is not present. <i>Parts per million (ppm) or Milligrams per liter (mg/l)</i> - one part per million corresponds to one minute in two years or a single penny in \$10,000. <i>Parts per billion (ppb) or Micrograms per liter (µg/l)</i> - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000. <i>Picocuries per liter (pCi/L)</i> - picocuries per liter is a measure of the radioactivity in water. <i>Nephelometric Turbidity Unit (NTU)</i> - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person. <i>90th Percentile Value</i> - 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. <i>Action Level</i> - the concentration of a contaminant, which, if exceeded, triggers treatment, or other requirements, which a water system must follow. <i>Treatment Technique (TT)</i> - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water. <i>Maximum Contaminant Level</i> - 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. <i>Maximum Contaminant Level Goal</i> 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. <i>Nephelometric Turbidity Unit (NTU)</i> - <i>A measure of the clarity of Water Turbidity in excess of 5 NTU is just noticeable to the average person.</i> <i>Locational Running Annual Average (LRAA)</i> : The LRAA is calculated by taking the average of the four most recent samples collected at each individual site <i>N/A-Not applicable</i>							

SCHAGHTICOKE CONSOLIDATED WATER DISTRICT #1 NY4100046 & WD#3 NY4100062 Public Water Supply Identification Number Water Purchased from City of Troy PWD ID NY4100050 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	7/10/23	27.7	µg/l	2000	MCL=2000	Naturally occurring
Chloride	N	7/10/23	22.4	mg/l	N/A	MCL=250	Naturally occurring, road salt
Color (avg) range	N	Daily	3 ND-11	units	N/A	MCL=15	Naturally occurring
Copper WD#1 Range of copper concentrations	N	6/3/23-6/9/23	0.0747 ¹ 0.0128- .0125	mg/l	1.3	AL=1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives
Copper WD#1 Range of copper concentrations	N	11/7/23-12/13/23	0.151 ² 0.0227-0.666				
Copper WD#3 Range of copper concentrations	N	6/13/23-6/28/23	0.0343 ³ 0.0109- 0.0430				
Copper WD#3 Range of copper concentrations		11/7/23-12/13/23	0.216 ⁴ 0.0109-0.301				
Fluoride (avg) range	N	Daily	0.84 0.33-1.15	mg/l	N/A	MCL2.2	Water additive which promotes strong teeth
Iron (avg) range	N	Weekdays	20 50-100	µg/l	N/A	MCL=300	Geology; Naturally occurring
Lead WD#1 Range of lead concentrations	N	6/3/23-6/9/23	1.2 ³ ND-1.8	µg/l	0	AL=15	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead WD#1 Range of lead concentrations	N	11/7/23-12/13/23	2.8 ⁴ ND-4.9				
Lead WD#3 Range of lead concentrations	N	6/13/23-6/28/23	1.1 ⁵ ND-1.1				
Lead WD#3 Range of lead concentrations	N	11/7/23-12/13/23	2.6 ⁶ ND-5.4				
Manganese (avg)	N	Weekdays	30	µg/l	N/A	MCL=300	Geology; Naturally occurring

range			10-120				
Nitrate-as N WD#1 Nitrate- as N WD#3	N	12/13/23	0.090 0.202	mg/l	10	MCL=10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
pH (avg) range	N	Daily	8.48 6.36-9.09	units		6.5-8.5	
Sodium ⁷	N	7/6/22	10.3	mg/l	N/A	N/A	Naturally occurring
Sulfate	N	7/6/22	19.9	mg/l	N/A	MCL=250	Naturally occurring
Turbidity	N	Daily	0.74 0.06-2.0	NTU	N/A	MCL=5	Soil runoff
Radiological Contaminants							
Gross Alpha Particles	N	10/17/22	0.088	pCi/l	0	15	Naturally occurring
Gross Beta Particles	N	10/17/22	0.819	pCi/l	0	4.0	Naturally occurring
Radium 226	N	10/17/22	0.082	pCi/l	0	5.0	Naturally occurring
Radium 228	N	10/17/22	0.450	pCi/l	0	30	Naturally occurring
Disinfection Byproducts							
Stage 2 Haloacetic Acids (HAA5] (Average) Range of values for HAA5	N	2/7/23 5/9/23 8/8/23 11/14/23	Melrose Pumphouse ⁸ 21.7 12.5-35.7 Spiegletown PumpStation ⁸ 33.4 25.1-46	µg/l	N/A	MCL=60	By-product of drinking water disinfection needed to kill harmful organisms.
Water District #1	N						
Stage 2 TTHM Total Trihalomethanes (Average) Range of values for TTHM	N	2/7/23 5/9/23 8/8/23 11/14/23	Melrose Pumphouse 59.8 47.7-86.7 Spiegletown PumpStation 49.7 36.3-73.2	µg/l	N/A	MCL=80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains organic matter.
Water District #1	N						
Stage 2 Haloacetic Acids (HAA5] (Average) Range of values for HAA5	N	2/7/23 5/9/23 8/8/23 11/14/23	100 New Turnpike ⁸ 29.9 20.6-48.9 174 New Turnpike ⁸ 20.4 11.6-25.9	µg/l	N/A	MCL=60	By-product of drinking water disinfection needed to kill harmful organisms.
Water District #3	N						
Stage 2 TTHM Total Trihalomethanes (Average) ⁶ Range of values for TTHM	N	2/7/23 5/9/23 8/8/23 11/14/23	100 New Turnpike 46.0 28.7-69.1 174 New Turnpike 59.4 44.3-94.4	µg/l	N/A	MCL=60	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains organic matter.
Water District #3	N						
Synthetic Organic Chemicals							
2,4-D	N	8/1/23	0.13	µg/l	N/A	MCL=70	Release to the environment by its application as a pesticide used to control broad leaf needs in agriculture and for control of woody plants along roadsides, railways, and utility rights-of- way.
Dalapon	N	8/1/23	1.0	µg/l	N/A	MCL=200.0	Runoff from herbicide used on rights of way
Chlorine Dioxide Residual (avg) range	N	Daily	0.015 0.00-0.20	mg/l	0.8	0.8	Used in the treatment and disinfection of drinking water
Chlorate (avg) range	N	Monthly	0.21 0.14-0.27	mg/l	N/A	N/A	Byproduct of chlorine dioxide used in disinfection
Chlorite (avg) range	N	Monthly	0.78 0.61-1.08	mg/l	N/A	1.0	Byproduct of chlorine dioxide used in disinfection
Chlorine avg. range	N	Daily	0.79 0.38-1.05	mg/l	MRDL 4	MRDL 4	Used in the treatment and disinfection of drinking water
Total Organic Carbon (TOC) samples from 2023							
TOC (filter effluent) range Monthly Compliance Ratio	N	Monthly samples	1.3	N/A	>= 1.0	TT	Naturally present in the environment
Notes:							
1. The level presented represents the 90 th percentile of 10 test sites. 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 copper values detected at your water system. In this case, 10 samples were collected at your water system in June and the 90 th percentile value was the 9 th sample with 2 nd highest value (level detected 0.0747 mg/l). The Action Level for copper was not exceeded at any of the sites tested.							
2. The level presented represents the 90 th percentile of 20 test sites. 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 copper values detected at your water system. In this case, 20 samples were collected at your water system in Nov. 2023 and the 90 th percentile value was the 18 th sample with 3 rd highest value (level detected 0.151 mg/l). The Action Level for copper was not exceeded at any of the sites tested.							

3. The level presented represents the 90th percentile of 10 test sites. The Action Level for copper was not exceeded at any of the sites tested for WD#3.
4. The level presented represents the 90th percentile of 20 test sites. The Action Level for copper was not exceeded at any of the sites tested for WD#3.
5. The level presented represents the 90th percentile of 10 test sites. The Action Level for lead was not exceeded at any of the sites tested for WD#3.
6. The level presented represents the 90th percentile of 20 test sites. The Action Level for lead was not exceeded at any of the sites tested for WD#3.
7. Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets.
8. The highest LRAAs for the HAA5s are as follows Melrose-3rd qtr; Spiegletown 4th qtr; 100 New Turnpike 4th qtr. and 174 New Turnpike in the 3rd qtr.
9. The highest LRAAs for the THMs are as follows Melrose-2nd qtr; Spiegletown 4th qtr; 100 New Turnpike 1st qtr. and 174 New Turnpike in the 1st qtr.

As illustrated in the table above, Troy's monitoring and testing detected some contaminants; all other contaminants were below the maximum levels permitted by the State, known as the maximum contaminant levels (MCL). Many of the test results were **NON-DETECTABLE**. The type/group (number of contaminants in each group) tested for were as follows: volatile organic compounds (52) +MTBE, synthetic organic compounds (41), PFOCs, PFOA/PFAS, 1,4 Dioxane and asbestos. The inorganic contaminants tested for and non-detectable were, arsenic, cadmium, chromium, iron, manganese, mercury, nickel silver, selenium, antimony, beryllium, thallium, zinc, nitrite, and cyanide.

Glossary

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.

Parts per trillion (ppt) or Nanograms per liter (nanograms/l) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

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.

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

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.

Troy's water treatment plant performs multi level treatment to insure that Troy and Schaghticoke residents receive safe drinking water. Additionally, as this annual report shows your water is routinely monitored for a great number of potential contaminants.

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

City of Mechanicville
PWSID NY4500166
Source Water Assessment Summary

The NYS DOH has evaluated this Public Water System's (PWS) susceptibility to contamination under the Source Water Assessment Program (SWAP), and their findings are summarized in the paragraph below. It is important to stress that these assessments were created using available information and only estimate the potential for source water contamination. Elevated susceptibility ratings do not mean that source water contamination has or will occur for this PWS. This PWS provides treatment and regular monitoring to ensure the water delivered to consumers meets all applicable standards.

This assessment found an elevated susceptibility to contamination for this source of drinking water. The amount of agricultural lands in the assessment area results in elevated potential for protozoa and pesticides contamination. However, there is reason to believe that land cover data may over estimate the percentage of pasture in the assessment area. No permitted discharges are found in the assessment area.

There are no noteworthy contamination threats associated with other discrete contaminant sources. Finally, it should be noted that hydrologic characteristics (e.g. basin shape and flushing rates) generally make reservoirs highly sensitive to existing and new sources of phosphorus and microbial contamination.

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

Saratoga County Water Authority
260 Butler Road Gansevoort, NY
PWSID# NY4503022

Our drinking water is derived from a surface water source, the Hudson River. Hydrogeologic characteristics generally make rivers highly sensitive to existing and new sources of nitrate, phosphorous, and microbial contamination. Elevated susceptibility rating do not mean that source water contamination has or will occur for the Public Water System. 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 continue to protect our source water quality.

SARATOGA COUNTY WATER AUTHORITY Public Water Supply Identification Number NY4530222 Table of Detected Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected	Unit Measure ment	MCLG	Regulatory Limit (MCL, TT or AL)	Likely source of Contamination
Inorganic Contaminants							
Barium	N	4/18/23	4	µg/l	2000	MCL=2000	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chloride	N	4/18/23	8.1	mg/l	N/A	MCL=250	Naturally occurring or indicative of road salt contamination.
Manganese	N	4/18/23	2	µg/l	N/A	MCL=300	Naturally occurring; Indicative of landfill contamination.
Nitrate	N	3/8/23	0.11	mg/l	10	MCL=10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium ¹	N	4/18/23	7.2 ¹	mg/l	N/A	N/A	Naturally occurring; Road Salt, animal waste and water softeners
Microbiological Contaminants							
Turbidity (Highest Value) ²	N	6/10/23	0.083	NTU	N/A	TT=1.0 NTU	Soil runoff
			100%			TT= 95% samples < 0.3	
Total Organic Carbon (TOC)							
TOC Raw Water (average) Treated water (average)	N	Monthly samples 2023	4.8 1.8	mg/l	N/A	TT ³	Naturally present in the environment
Unregulated Perfluoroalkyl Substances							
Perfluorobutsonic Acid (PFBA)	N	6/13/23	1.27	ng/l	N/A	MCL=10 ^{4,5,6}	Released into the environment from widespread use in commercial and industrial applications
Notes: 1. Water containing more than 20 mg/l of sodium should not be used for drinking by people on severely restricted sodium diets. Water containing more than 270 mg/l of sodium should not be used for drinking by people on moderately restricted sodium diets. 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 in 2023 for combined filter effluent 0.083 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. Distribution system turbidity is measured 5 days a week. Our highest distribution turbidity was 0.190 NTU. and complied 100% of the time. 3. TOC removals from the water treatment process met the specified target values . 4. Only PFOA and PFOS have a regulatory limit of 10 ng/l each. 5. All perfluoroalkyl substances, besides PFOA and PFOS, are considered Unspecified Organic Contaminants (UOC) which have an MCL = 0.05 mg/L. 6. USEPA Health Advisory Levels identify the concentration of a contaminant in drinking water at which adverse health effects and/or aesthetic effects are not anticipated to occur over specific exposure durations. Health Advisory Levels are not to be considered Legally enforceable federal standards and are subject to change as new information becomes available. PFBS (2000 ng/l) and HFPO-DA (10 ng/l) also have Health Advisory Levels							