Annual Drinking Water Quality Report for 2021

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.

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 hypochorite 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 1,232 service connections to a population of approximately 3,080 persons. The total amount of water purchased for WD#1 was 90,150,487 gallons and the amount delivered was 80,344,086 gallons with a loss of 9,806,401 gallons 8.74 % or unaccounted water in 2021. 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 242,230 gallons our single highest day was 393,090 gallons. The annual charge per one thousand gallons of water delivered is $4.80 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 $4.80 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) 270-2626.

WHAT DOES THIS INFORMATION MEAN?

As you can see from the Table on page , 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.

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 Crytosporidium/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 Crytosporidium/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 exposes 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.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2021, our system was in compliance with applicable State drinking water operating requirements. The November 2021 Operations Report for WD#1 was not submitted by the 10th of the following month and we received a reporting violation for that. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During 2021, we "did not monitor or test" or "did not complete all monitoring or testing" , we did not collect our second 6-month monitoring(July-December) for lead and copper for WD#2 and were issued a violation. Water District #2 purchases its water from Mechanicville which is now purchasing water from the Saratoga Water Authority and the corrosivity of the water may change. That is the purpose for collecting lead and copper samples every 6-months to see if our lead and copper results increase in concentration. The health effects of these metals are:

<u>Copper</u>

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.

<u>Lead</u>

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

Our system is one of many drinking water systems in New York State that provides drinking water with a controlled, low level of fluoride for consumer dental health protection. Fluoride is added to your water if you are in Consolidated Water District #1. Fluoride is added to the water we purchase, by the City of Troy before it is delivered to us. According to the United States Centers for Disease Control, fluoride is very effective in preventing cavities when present in drinking water at a controlled level. To ensure that the fluoride supplement in your water provides optimal dental protection, the City of Troy monitors fluoride levels on a daily basis to make sure fluoride is maintained at a target level of 1.0 mg/l. During 2021 monitoring showed that fluoride levels in your water were within 0.2 mg/l of the target level 100 % of the time. None of the monitoring showed fluoride at levels that approach the 2.2 mg/l MCL for fluoride.

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 Town of Schaghticoke 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*

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 and City of Mechanicville 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 2021 although some water main, valves and hydrants were repaired or replaced. There are no improvements planned for Consolidated Water District #1 in 2021.

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 DISTRICT #2 TABLE OF DETECTED CONTAMINANTS
Public Water Supply Identification Number NY4100048
Water purchased from the City of Mechanicville

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
Turbidity (highest turbidity sample from 5/13/21)[1]	Y	0.17[2]	NTU	N/A	TT=1.0 NTU	Soil runoff
		100%			TT=95% samples < 0.3	
Inorganic Contaminants (samples from 2/3/21 unless otherwise noted)						
Barium	N	15.3	ppb	2000	2000	Naturally occurring
Chloride	N	35.5	ppm	N/A	250	Naturally occurring or indicative of road salt contamination.
Copper Schaghticoke WD#2 (samples from 6/30/21)	N	0.33[2]	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Range of copper concentrations		0.07-0.40				
Lead Schaghticoke WD#2 (samples from 6/30/21)	N	9.7[3]	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Range of lead concentrations		ND-32.4				
Manganese 2/3/21-11/18/21 (range)	N	ND-23.1	ppb	N/A	300	Naturally occurring
Odor	N	1.0	units	N/A	3	Natural sources
pH	N	7.53	units		6.5-8.5	
Sodium[4]	N	14.1	ppm	N/A	N/A	Geology; Road Salt
Sulfate	N	14.3	ppm	N/A	250	Geology
Disinfection Byproducts (Quarterly samples from 2/9/21, 5/11/21 8/10/21 & 11/9/21)						
Stage 2 Haloacetic Acids (HAA5)(Average) Weaver Petroleum	N	50.3[5]	ppb	N/A	60	By-product of drinking water chlorination
Range of values for HAA5		17.2-93.5				
Stage 2 Haloacetic Acids (HAA5)(Average) Hemstead Park		33				
Range of values for HAA5		2-69.7				
Stage 2 TTHM[Total Trihalomethanes](Average)[5] Weaver Petroleum	Y	81.8	ppb	0	80	By-product of drinking water chlorination
Range of values for TTHM		44.6-115				
Stage 2 TTHM[Total Trihalomethanes](Average)[5] Hemstead Park	Y	81.7				
Range of values for TTHM		49.3-111				
Chlorine Residual (average)	N	1.21	ppm	MRDLG	MRDL	Used in the treatment and disinfection of drinking water
range		0.76-2.13		N/A	4	
Total Organic Carbon[6] (monthly samples from 2021)						
Total Organic Carbon Monthly Compliance Ratio	N	1.09-1.81	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[7] **(Monthly for January- July 2020)**						
Lower Reservoir 2.5 Million Gallons average	N/A		104	E.coli/100	Average>100	Human & animal fecal contamination
range			34-308	ml	E.coli/100ml	

Notes:

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 0.91 NTU being highest level detected and 0.35 NTU being the average level detected.
2. The level presented represents the 90th 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 90th 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 90th percentile value was the 18th sample with the third highest value (level detected 0.196 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 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 90th percentile is equal to or greater than 90% of the lead values detected at your water system. In this case, 20 samples were collected at your water system and the 90th percentile value was the 18th sample with the third highest value (level detected 9.7 µg/l). The action level for lead was exceeded at 2 of the sites tested.
4. Water containing more than 20 mg/l should not be consumed by persons on severely restricted sodium diets.
5. The average is based on a Locational Running Annual Average (LRAA). The averages shown are the highest LRAAs for reach of the 2 sites monitored in of 2021. The highest LRAA's for the THMs was in the 4th quarter for both sites. The highest LRAA for the HAA5's was in the 3rd quarter for Weaver Petroleum and the 4th quarter for Hemstead Park..
6. 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.
7. 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 E. *coli* sample. We present the average and range of results for 2020 in the table.

SCHAGHTICOKE CONSOLIDATED WATER DISTRICT and NY4100062#1 TABLE OF DETECTED CONTAMINANTS
Public Water Supply Identification Number NY4100046
Water Purchased from City of Troy PWD ID NY4100050

Contaminant	Violation Yes/No	Date of Sample	Level Detected	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely source of Contamination
Microbiological Contaminants							
Turbidity (Highest Value)[1]	N	2/5/21	0.51[1]	NTU	N/A	TT=1.0 NTU	Soil runoff
			100%			TT= 95% samples < 0.3	

Inorganic Contaminants							
Barium	N	7/1/21	30.2	ppb	2000	2000	Naturally occurring
Chloride	N	7/1/21	22.8	ppm	N/A	250	Naturally occurring, road salt
Color (avg) range	N	Daily	2 ND-11	units	N/A	15	Naturally occurring
Fluoride (avg) range	N	Daily	0.81 0.16-0.96	ppm	N/A	2.2	Water additive which promotes strong teeth
Iron (avg) range	N	Weekdays	ND 0.02-50	ppb	N/A	300	Geology; Naturally occurring
Manganese (avg) range	N	Weekdays	17 ND-40	ppb	N/A	300	Geology; Naturally occurring
Nitrate-as N	N	7/1/21	0.1	ppm	10	10	
pH (avg) range	N	Daily	8.48 6.24-9.0	units		6.5-8.5	
Sodium[2]	N	7/1/21	11.7	ppm	N/A	N/A	Naturally occurring
Sulfate	N	7/1/21	18.3	ppm	N/A	250	Naturally occurring
Turbidity	N	Daily	0.54 0.07-2.80	NTU	N/A	5	Soil runoff
Radiological Contaminants							
Gross Beta Particles	N	3/11/16	0.681	pCi/l	0	4.0	Naturally occurring
Radium 226	N	3/11/16	0.456	pCi/l	0	5.0	Naturally occurring
Uranium	N	3/11/16	0.167	ppb	0	30	Naturally occurring
Disinfection Byproducts							
Chlorine Dioxide Residual (avg) range	N	Daily	0.009 0.00-0.18	ppm	0.8	0.8	Used in the treatment and disinfection of drinking water
Chlorate (avg) range	N	Monthly	0.21 0.15-0.28	ppm	N/A	N/A	Byproduct of chlorine dioxide used in disinfection
Chlorite (avg) range	N	Monthly	0.83 059-1.09	ppm	N/A	1.0	Byproduct of chlorine dioxide used in disinfection
Chlorine avg. range	N	Daily	.0.90 0.12-1.12	ppm	MRDL 4	MRDL 4	Used in the treatment and disinfection of drinking water
Total Organic Carbon (TOC) samples from 2021							
TOC (filter effluent) range Monthly Compliance Ratio	N	Monthly samples	1.3	N/A	>= 1.0	TT	Naturally present in the environment

Notes:
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.
2. Water containing more than 20 ppm should not be used for drinking by persons on severely restricted sodium diets.

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.

Saratoga County Water Authority Water Supply Table of Detected Contaminants
Public Water Supply Identification Number NY4530222

Contaminant	Date of Sample	Violation (Yes/No)	MCL, (AL) or ((TT))	MCLG	Units	Contaminant Level Detected	Likely Source of Contamination
Turbidity							
Entry Point	**6/8/21**	**No**	**1.00**	**N/A**	**NTU**	**0.117**	**Soil Runoff**
Transmission System	**4/6/21**	**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							

Nitrate	**2/23/21**	**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	**2/23/21**	**No**	**2**	**2**	**µg/l**	**5**	**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
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.

PUBLIC WATER SUPPLY	SAMPLE ID #	SAMPLE LOCATION	DATE COLLECTED	TOTAL TRIHALOMETHANE	THM LRAA	Total Haloacetic Acid	HAA5 LRAA
Schaghticoke WD # 1(consolidated)	JH2003162	Stage 2: Melrose Pumphouse, Entry Point, Pre-subsequent Chlorination	05/12/2020	52.2		21.3	
Schaghticoke WD # 1(consolidated)	JH2005955	Stage 2: Melrose Pumphouse, Entry Point, Pre-subsequent Chlorination	08/11/2020	89.7		6.4	
Schaghticoke WD # 1(consolidated)	JH2008731	Stage 2: Melrose Pumphouse, Entry Point, Pre-subsequent Chlorination	11/10/2020	57.1		5.2	
Schaghticoke WD # 1(consolidated)	JH2101117	Stage 2: Melrose Pumphouse, Entry Point, Pre-subsequent Chlorination	02/09/2021	40.3	59.825	8.37	10.3175
Schaghticoke WD # 1(consolidated)	JH2103453	Stage 2: Melrose Pumphouse, Entry Point, Pre-subsequent Chlorination	05/11/2021	39.8	56.725	7.4	6.8425
Schaghticoke WD # 1(consolidated)	JH2107022	Stage 2: Melrose Pumphouse, Entry Point, Pre-subsequent Chlorination	08/10/2021	103	60.05	11.6	8.1425
Schaghticoke WD # 1(consolidated)	JH2110326	Stage 2: Melrose Pumphouse, Entry Point, Pre-subsequent Chlorination	11/09/2021	78.7	65.45	9.28	9.1625
Schaghticoke WD # 1(consolidated)	JH2003161	Stage 2: Speigletown Pump Station	05/12/2020	42.9		31	
Schaghticoke WD # 1(consolidated)	JH2005953	Stage 2: Speigletown Pump Station	08/11/2020	75.3		26	
Schaghticoke WD # 1(consolidated)	JH2008721	Stage 2: Speigletown Pump Station	11/10/2020	37.7		22.3	
Schaghticoke WD # 1(consolidated)	JH2101115	Stage 2: Speigletown Pump Station	02/09/2021	19.9	43.95	19.8	24.775
Schaghticoke WD # 1(consolidated)	JH2103451	Stage 2: Speigletown Pump Station	05/11/2021	42	43.725	25.9	23.5
Schaghticoke WD # 1(consolidated)	JH2107024	Stage 2: Speigletown Pump Station	08/10/2021	84.5	46.025	65.5	33.375
Schaghticoke WD # 1(consolidated)	JH2110324	Stage 2: Speigletown Pump Station	11/09/2021	50.2	49.15	39.4	37.65
Schaghticoke WD # 2	JH2003164	Stage 2: Wever Petroleum kitchen tap	05/12/2020	46		28.8	
Schaghticoke WD # 2	JH2005959	Stage 2: Wever Petroleum kitchen tap	08/11/2020	95.5		31.9	
Schaghticoke WD # 2	JH2008729	Stage 2: Wever Petroleum kitchen tap	11/10/2020	46.6		32.2	
Schaghticoke WD # 2	JH2101121	Stage 2: Wever Petroleum kitchen tap	02/09/2021	44.6	58.175	27.7	30.15
Schaghticoke WD # 2	JH2103457	Stage 2: Wever Petroleum kitchen tap	05/11/2021	61.5	62.05	47.9	34.925
Schaghticoke WD # 2	JH2107028	Stage 2: Wever Petroleum kitchen tap	08/10/2021	115	66.925	93.5	50.325
Schaghticoke WD # 2	JH2110328	Stage 2: Wever Petroleum kitchen tap	11/09/2021	106	81.775	17.2	46.575
Schaghticoke WD # 2	JH2003163	Stage 2: Hemstead Park VFD, South Linden St	05/12/2020	52.4		26.6	
Schaghticoke WD # 2	JH2005957	Stage 2: Hemstead Park VFD, South Linden St	08/11/2020	98		18.5	
Schaghticoke WD # 2	JH2008727	Stage 2: Hemstead Park VFD, South Linden St	11/10/2020	52.8		1.2	
Schaghticoke WD # 2	JH2101119	Stage 2: Hemstead Park VFD, South Linden St	02/09/2021	49.3	63.125	26.5	18.2
Schaghticoke WD # 2	JH2103455	Stage 2: Hemstead Park VFD, South Linden St	05/11/2021	64.6	66.175	33.8	20
Schaghticoke WD # 2	JH2107026	Stage 2: Hemstead Park VFD, South Linden St	08/10/2021	111	69.425	69.7	32.8
Schaghticoke WD # 2	JH2110330	Stage 2: Hemstead Park VFD, South Linden St	11/09/2021	102	81.725	1.97	32.9925
Schaghticoke WD # 3	JH2003165	Stage 2: 100 New Turnpike	05/12/2020	43.5		26.3	
Schaghticoke WD # 3	JH2005961	Stage 2: 100 New Turnpike	08/11/2020	72.3		24	
Schaghticoke WD # 3	JH2008723	Stage 2: 100 New Turnpike	11/10/2020	43.5		16.2	
Schaghticoke WD # 3	JH2101123	Stage 2: 100 New Turnpike	02/09/2021	24.7	46	21.4	21.975
Schaghticoke WD # 3	JH2103459	Stage 2: 100 New Turnpike	05/11/2021	47.9	47.1	26.7	22.075
Schaghticoke WD # 3	JH2107030	Stage 2: 100 New Turnpike	08/10/2021	93	52.275	59.2	30.875
Schaghticoke WD # 3	JH2110332	Stage 2: 100 New Turnpike	11/09/2021	59.8	56.35	28.1	33.85
Schaghticoke WD # 3	JH2003166	Stage 2: 174 New Turnpike	05/12/2020	52.5		14.1	
Schaghticoke WD # 3	JH2005963	Stage 2: 174 New Turnpike	08/11/2020	80.4		13.8	
Schaghticoke WD # 3	JH2008725	Stage 2: 174 New Turnpike	11/10/2020	50.5		11.5	
Schaghticoke WD # 3	JH2101125	Stage 2: 174 New Turnpike	02/09/2021	33.6	54.25	13.9	13.325
Schaghticoke WD # 3	JH2103461	Stage 2: 174 New Turnpike	05/11/2021	63.7	57.05	21.5	15.175
Schaghticoke WD # 3	JH2107032	Stage 2: 174 New Turnpike	08/10/2021	97.6	61.35	22.5	17.35
Schaghticoke WD # 3	JH2110334	Stage 2: 174 New Turnpike	11/09/2021	76.9	67.95	9.18	16.77

JH CONSULTING GROUP, INC

PO BOX 705
NEWTONVILLE, NY 12128
(518) 785-9839

PHASE II AND PHASE V MONITORING

SAMPLE INFORMATION

Sample ID	JH2110920	**Customer Code**	1953
Federal Water Supply Code	NY4100062	**DOH**	
Water Supply	Schaghticoke WD # 3		
Address	290 Northline Drive	, Melrose	, NY , 12121
Sample Location	Hose bib		
Date Collected	12/6/0202	**Time Collected**	11:30 AM
Sample Collector	SMC	**E-Mail**	waterandSewer@TownofSchaghticoke.
Date Printed	12/9/2021		

LABORATORY REPORT

ANALYTE	CONCENTRATION MG/L		METHOD	MCL *	Date Analyzed	Lab ID Number
INORGANICS Table 8C		set up time				
Nitrate	0.203	11:00	Hach 10206	10 mg/l as N	12/9/2021	11799
Nitrite	NT		EPA 354.1	1 mg/l as N		

Notes:

MCL* is the Maximum Contaminant Level; it is the maximum concentration allowed in drinking water for a specific analyte as per NYS Sanitary Code. Hold time for nitrate per ELAP requirements is 48 hours for potable, non-chlorinated water samples and 14 days for potable, chlorinated water supplies. Samples for nitrate testing are also required to be received at 4 degrees Celsius or delivered to the laboratory on ice in the chilling process.

Legend: MG/L = Milligrams per Liter; < = Less Than; > = Greater Than;
mg/L = Parts per million; ug/L = Parts per billion; NT= Not Tested NC = Not Chlorinated

The above test procedures meet all the requirements of NELAC and relate only to these samples

JH CONSULTING GROUP, INC

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PHASE II AND PHASE V MONITORING

SAMPLE INFORMATION

Sample ID	JH2110919	**Customer Code**	1932
Federal Water Supply Code	NY4100048	**DOH**	
Water Supply	Schaghticoke WD # 2		
Address	290 Northline Drive	, Melrose	, NY , 12121
Sample Location	Faucet		
Date Collected	12/6/2021	**Time Collected**	9:40 AM
Sample Collector	SMC	**E-Mail**	waterandSewer@TownofSchaghticoke.
Date Printed	12/9/2021		

LABORATORY REPORT

ANALYTE	CONCENTRATION MG/L		METHOD	MCL *	Date Analyzed	Lab ID Number
INORGANICS Table 8C		set up time				
Nitrate	<0.23	11:00	Hach 10206	10 mg/l as N	12/9/2021	11799
Nitrite	NT		EPA 354.1	1 mg/l as N		

Notes:

MCL* is the Maximum Contaminant Level; it is the maximum concentration allowed in drinking water for a specific analyte as per NYS Sanitary Code. Hold time for nitrate per ELAP requirements is 48 hours for potable, non-chlorinated water samples and 14 days for potable, chlorinated water supplies. Samples for nitrate testing are also required to be received at 4 degrees Celsius or delivered to the laboratory on ice in the chilling process.

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PHASE II AND PHASE V MONITORING

SAMPLE INFORMATION

Sample ID	JH2110918	**Customer Code**	1931
Federal Water Supply Code	NY4100046	**DOH**	
Water Supply	Schaghticoke WD # 1(consolidated)		
Address	290 Northline Drive	, Melrose	, NY , 12121
Sample Location	Faucet		
Date Collected	12/6/2021	**Time Collected**	11:15 AM
Sample Collector	SMC	**E-Mail**	waterandSewer@TownofSchaghticoke.
Date Printed	12/9/2021		

LABORATORY REPORT

ANALYTE	CONCENTRATION MG/L		METHOD	MCL *	Date Analyzed	Lab ID Number
INORGANICS Table 8C		set up time				
Nitrate	<0.23	11:00	Hach 10206	10 mg/l as N	12/9/2021	11799
Nitrite	NT		EPA 354.1	1 mg/l as N		

Notes:

MCL* is the Maximum Contaminant Level; it is the maximum concentration allowed in drinking water for a specific analyte as per NYS Sanitary Code. Hold time for nitrate per ELAP requirements is 48 hours for potable, non-chlorinated water samples and 14 days for potable, chlorinated water supplies. Samples for nitrate testing are also required to be received at 4 degrees Celsius or delivered to the laboratory on ice in the chilling process.

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mg/L = Parts per million; ug/L = Parts per billion; NT= Not Tested NC = Not Chlorinated

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(518) 785-9839 (Fax 786-3116)

Your 2021 Annual Water Quality Report must be distributed by May 31, 2022. If you want us to do your report, please complete and mail back or FAX back ASAP.

Annual Water Quality Report 2021 Information Update

Name of Water Supply Town of Schaghticoke

Have there been any changes to your water supply or treatment process since last year's report New or different chemicals, new water plant etc?
(Describe) No

For Surface Water Systems
In any one month during 2021 were you unable to meet the performance standard for turbidity? (did you exceed your turbidity MCL?)_____

What was your single highest combined filtered water turbidity and when (DATE)?
_____

What was the lowest monthly percentage of samples meeting the turbidity performance standards for the filtration technology being used? _____percent.
What month?_____

What was your single highest distribution system turbidity and when (date)? _____
What is your average distribution system turbidity?_____ Lowest distribution system turbidity_____; Highest distribution system turbidity

For Systems that Chlorinate

What is your average FINISHED WATER chlorine residual? 0.56 . What is the range of chlorine residuals in your FINISHED WATER for 2021? Lowest 0.03 ;
Highest 2.20

What is your average distribution system chlorine residual? 0.55 . What is the range of chlorine residuals in your system for 2021? Lowest 0.02 ; Highest 1.92

For All Systems

What is your system's average daily demand? 246,988 gallons

What was your sytem's highest single day 445,095 gallons

How many gallons (total) did you pump in 2021? 90,150,487

How many service connections do you have? 1,232

How many people do you serve? 3,080

Have you added more storage capacity to your system? Tanks, standpipes etc. since last year. (Describe) None

Did you have any positive coliform or E. coli samples? If so when?
Describe None

Did you have any Monitoring Violations? No

Did you have any Reporting Violations? Yes. November paperwork not submitted in time

Are you operating under any Variances, Exemptions, Administrative or Judicial Orders?

No

For Systems that Fluoridate

The optimal range for fluoride is 0.7 ppm- 1.2 ppm. What percentage of the time were your fluoride levels in that range.? 80%, 85 % 90% 95% 100 % _____%

Contact person who will handle questions about the water.

Name Shawn M. Cross

Address 290 Northline Drive, Melrose, NY 12121

Title Operator in Responsible Charge

Phone Number 518-461-3350

E Mail Address waterandsewer@townofschaghticoke.org

SURFACE WATER TREATMENT RULE

If you are under a consent order from NYSDOH what progress you have made?_____

Has construction been started or completed?_____ When?_____.

What type of treatment is planed or has already been installed?

_____

THIS SECTION IS FOR WATER SUPPLIES THAT SERVE GREATER THAN 1000 SERVICE CONNECTIONS

For systems that calculate water use of all customers with meters, an accounting of the total annual amount of water withdrawn, delivered, and lost from the system_____

90,150,487 gallons withdrawn

80,344,086 gallons delivered

9,806,401 gallons lost

A brief description of any water source restricted, removed from service, or otherwise limited in its use and any actions taken to secure new supplies or replace lost capacity. None

A description of any major modification(s) completed by the water system during 2021 to include a brief description of each and effect on the water system, and a discussion of capital improvements needed or planned. None

For systems that bill their customers, the report should include the annual average charge for water either in annual charge per average resident user or annual charge per one thousand gallons of water delivered. City of Troy rate per 1000 gallons - $4.80

City of Mechanicville rate per 1000 gallons - $ 6.11

JH CONSULTING, GROUP, INC
PO BOX 705
NEWTONVILLE, NY 12128
(518) 785-9839

FIRST DRAW LEAD MONITORING RESULTS

Date Printed 7/26/2021

SAMPLE ID	WATER SUPPLY	CUSTOMER NAME	ADDRESS	DATE COLLECTED	HOURS OF NON USE	LEAD	Date Analyzed Lead
2105380	Schaghticoke WD # 2	101 S. Lincoln St		6/30/2021	12.25	<0.0010	7/20/21
2105388	Schaghticoke WD # 2	42 Locust Ave		6/30/2021	14.25	<0.0010	7/20/21
2105394	Schaghticoke WD # 2	75 N. Crystal St		6/30/2021	14.5	<0.0010	7/20/21
2105383	Schaghticoke WD # 2	98 N. Washington St		6/30/2021	12.5	0.0011	7/20/21
2105393	Schaghticoke WD # 2	111 S. Linden St		6/30/2021	14.5	0.0013	7/20/21
2105382	Schaghticoke WD # 2	96 N. Washington St		6/30/2021	12.5	0.0016	7/20/21
2105387	Schaghticoke WD # 2	138 S. Hudson St		6/30/2021	14	0.0017	7/20/21
2105395	Schaghticoke WD # 2	95 N. Washington St		6/30/2021	14.5	0.0018	7/20/21
2105392	Schaghticoke WD # 2	82 N. Pearl ST		6/30/2021	14.5	0.0023	7/20/21
2105389	Schaghticoke WD # 2	170 S. Pearl St		6/30/2021	14.25	0.0027	7/20/21
2105385	Schaghticoke WD # 2	98 S. Crystal St		6/30/2021	14	0.0031	7/20/21
2105384	Schaghticoke WD # 2	80 N. Hudson St		6/30/2021	14	0.0039	7/20/21
2105381	Schaghticoke WD # 2	10 Hemstreet Ave		6/30/2021	12.25	0.0046	7/20/21
2105378	Schaghticoke WD # 2	71 N. Lincoln St		6/30/2021	12	0.0054	7/20/21

LEAD VALUES ARRANGED IN ASCENDING ORDER

90th PERCENTILE LEAD CONCENTRATION *(HIGHLIGHTED IN YELLOW)*

If value is (greater than) >0.015 mg/l the Action Level is Exceeded
If value is (less than or equal to) ≤0.015 mg/l you are in Compliance

values for lead and copper are in mg/L
Analysis performed for JH Consulting Group, Inc by NYS Lab 11549 , The above test procedures meet all the requirements of NELAC and relate only to these samples

JH CONSULTING, GROUP, INC
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FIRST DRAW LEAD MONITORING RESULTS

Date Printed 7/26/2021

SAMPLE ID	WATER SUPPLY	CUSTOMER NAME	ADDRESS	DATE COLLECTED	HOURS OF NON USE	LEAD	Date Analyzed Lead
2105377	Schaghticoke WD # 2	11 Hewitt St		6/30/2021	11.75	0.0061	7/20/21
2105376	Schaghticoke WD # 2	78 N. Linden St		6/30/2021	11.75	0.0062	7/20/21
2105390	Schaghticoke WD # 2	168 S. Pearl St		6/30/2021	14.25	0.0092	7/20/21
2105386	Schaghticoke WD # 2	116 S. Hudson St		6/30/2021	14	0.0097	7/20/21
2105379	Schaghticoke WD # 2	73 N. Lincoln St		6/30/2021	12	0.0162	7/20/21
2105391	Schaghticoke WD # 2	160 S. Pearl St		6/30/2021	14.25	0.0324	7/20/21

LEAD VALUES ARRANGED IN ASCENDING ORDER

90th PERCENTILE LEAD CONCENTRATION *(HIGHLIGHTED IN YELLOW)*

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If value is (less than or equal to) ≤0.015 mg/l you are in Compliance

values for lead and copper are in mg/L
Analysis performed for JH Consulting Group, Inc by NYS Lab 11549 , The above test procedures meet all the requirements of NELAC and relate only to these samples

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FIRST DRAW COPPER MONITORING RESULTS

Date Printed 7/26/2021

SAMPLE ID	WATER SUPPLY	CUSTOMER NAME	ADDRESS	DATE COLLECTED	HOURS OF NON USE	COPPER	DATE ANALYZED
2105388	Schaghticoke WD # 2	42 Locust Ave		6/30/2021	14.25	0.0129	7/20/21
2105380	Schaghticoke WD # 2	101 S. Lincoln St		6/30/2021	12.25	0.0171	7/20/21
2105387	Schaghticoke WD # 2	138 S. Hudson St		6/30/2021	14	0.0480	7/20/21
2105392	Schaghticoke WD # 2	82 N. Pearl ST		6/30/2021	14.5	0.0510	7/20/21
2105395	Schaghticoke WD # 2	95 N. Washington St		6/30/2021	14.5	0.0644	7/20/21
2105389	Schaghticoke WD # 2	170 S. Pearl St		6/30/2021	14.25	0.0744	7/20/21
2105394	Schaghticoke WD # 2	75 N. Crystal St		6/30/2021	14.5	0.0784	7/20/21
2105391	Schaghticoke WD # 2	160 S. Pearl St		6/30/2021	14.25	0.0794	7/20/21
2105383	Schaghticoke WD # 2	98 N. Washington St		6/30/2021	12.5	0.0815	7/20/21
2105379	Schaghticoke WD # 2	73 N. Lincoln St		6/30/2021	12	0.0832	7/20/21
2105382	Schaghticoke WD # 2	96 N. Washington St		6/30/2021	12.5	0.0846	7/20/21
2105384	Schaghticoke WD # 2	80 N. Hudson St		6/30/2021	14	0.0860	7/20/21

Copper VALUES ARRANGED IN ASCENDING ORDER

90th PERCENTILE COPPER CONCENTRATION *(HIGHLIGHTED IN YELLOW)*

If value is (greater than) >1.3 mg/l the Action Level is Exceeded
If value is (less than or equal to) ≤1.3 mg/l you are in Compliance

ues for lead and copper are in mg/L
alysis performed for JH Consulting Group, Inc by NYS Lab 11549 , The above test procedures meet all the requirements of NELAC and relate only to these samples

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FIRST DRAW COPPER MONITORING RESULTS

Date Printed 7/26/2021

SAMPLE ID	WATER SUPPLY	CUSTOMER NAME	ADDRESS	DATE COLLECTED	HOURS OF NON USE	COPPER	DATE ANALYZED
2105390	Schaghticoke WD # 2	168 S. Pearl St		6/30/2021	14.25	0.110	7/20/21
2105385	Schaghticoke WD # 2	98 S. Crystal St		6/30/2021	14	0.119	7/20/21
2105378	Schaghticoke WD # 2	71 N. Lincoln St		6/30/2021	12	0.151	7/20/21
2105377	Schaghticoke WD # 2	11 Hewitt St		6/30/2021	11.75	0.173	7/20/21
2105376	Schaghticoke WD # 2	78 N. Linden St		6/30/2021	11.75	0.196	7/20/21
2105393	Schaghticoke WD # 2	111 S. Linden St		6/30/2021	14.5	0.196	7/20/21
2105386	Schaghticoke WD # 2	116 S. Hudson St		6/30/2021	14	0.384	7/20/21
2105381	Schaghticoke WD # 2	10 Hemstreet Ave		6/30/2021	12.25	0.644	7/20/21

Copper VALUES ARRANGED IN ASCENDING ORDER

90th PERCENTILE COPPER CONCENTRATION *(HIGHLIGHTED IN YELLOW)*

If value is (greater than) >1.3 mg/l the Action Level is Exceeded
If value is (less than or equal to) ≤1.3 mg/l you are in Compliance

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alysis performed for JH Consulting Group, Inc by NYS Lab 11549 , The above test procedures meet all the requirements of NELAC and relate only to these samples

Mechanicville City
PWSID NY4500166
AWQR SWAP Summary

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

CITY OF MECHANICVILLE TABLE OF DETECTED CONTAMINANTS
Public Water Supply Identification Number NY4500166

Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
Turbidity (highest turbidity sample from 7/2/20)[1]	Y	0.12[2] 100%	NTU	N/A	TT=1.0 NTU TT=95% samples < 0.3	Soil runoff
Inorganic Contaminants (samples from 2/3/21 unless otherwise noted)						
Barium	N	15.3	ppb	2000	2000	Barium
Chloride	N	35.5	ppb	N/A	250	Naturally occurring or indicative of road salt contamination.
Copper (samples from 8/19/20-8/24/20) Range of copper concentrations	N	0.241[3] 0.0047-0.438	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Iron 2/3/21-11/18/21 (range)	N	ND-93	ppb	N/A	300	Naturally occurring
Lead (samples from 8/19/20-8/24/20) Range of lead concentrations	N	3.2[3] ND-10	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Manganese (2/3/21-11/18/21) range	N	ND-23.1	ppb	N/A	300	Naturally occurring
Nickel	N	0.7	ppb	N/A	N/A	Naturally occurring
Odor	N	1	units	N/A	3	Natural sources
pH	N	7.53	units		6.5-8.5	
Sodium[4]	N	14.1	ppm	N/A	N/A	Geology; Road Salt
Sulfate	N	14.3	ppm	N/A	250	Geology
Disinfection Byproducts (Quarterly samples 2/18/21, 5/20/21, 8/19/21, 11/18/21)						
Stage 2 Haloacetic Acids (HAA5] (Average)[5] Range of values for HAA5	N	LRAA1 28.2 12.2-45 LRAA2 59.7 (27.2-82.4)	ppb	N/A	60	By-product of drinking water chlorination

Stage 2 TTHM Total Trihalomethanes (Average)[5] Range of values for TTHM	Y N	LRAA1 82.8 (42.3-119.6) LRAA2 74.1 (36.8-105.9)	ppb	0	80	By-product of drinking water chlorination
Chlorine Residual (average) range	N	1.12 071-2.23	ppm	MRDLG N/A	MRDL 4	Used in the treatment and disinfection of drinking water
Total Organic Carbon[6] (monthly samples from 2021)						
Total Organic Carbon Monthly Compliance Ratio	N	1.09-181	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[7] (Monthly for January- July 2020)						
Lower Reservoir 2.5 Million Gallons average range	N/A		104 34-308	E.coli/100 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 0.78 NTU being highest level detected and 0.23 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 90th percentile of 20 test sites. The action level for copper was not exceeded at any of the 20 sites tested. The action level for lead was not exceeded at any of the 20 sites tested.
4. Water containing more than 20 mg/l should not be consumed by persons on severely restricted sodium diets.
5. 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 2021. The range of results for each site are also shown. LRRA1 is 4 Industrial Park and LRAA2 is 147 Saratoga Ave. The highest locational running annual averages for Haloacetic acids for LRAA1 occurred during the 3rd quarter and at LRAA2 during the 4th quarter. For the Trihalomethanes the highest LRAA for site 1 and site 2 was during the 4th quarter.
6. 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.
7. 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 E. *coli* sample. We present the average and range of results for 2020 in the table.

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 (µ- 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.
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