

Annual Drinking Water Quality Report for 2023
Village of Menands
280 Broadway, Menands, NY 12204
(Public Water Supply ID# NY0100200)

INTRODUCTION

To comply with state regulations the Village of Menands annually issues a report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Last year, your tap water met all state drinking water health standards; we are proud to report that our system did not violate a maximum contaminant level or any other water quality standard in 2023. This report provides 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 state standards.

If you have any questions about this report or concerning your drinking water, please contact Mr. David Ognan, Water Operations Manager, Telephone (518) 434-2922. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled Village Board meetings. The meetings are held on the 1st and 3rd Monday (Tuesday if Monday is a holiday) of each month at 6:00 PM in the Municipal Building located at 250 Broadway in the Village of Menands.

WHERE DOES OUR WATER COME FROM?

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 the 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.

The Village of Menands purchases its water from the City of Troy under a contract arrangement that has been in place since the 1950's. The City of Troy draws its water from a surface water supply, the spring fed Tomhannock Reservoir, located to the northeast of the city. Generally, water flows by gravity from the Tomhannock Reservoir to the John P. Buckley Water Treatment Plant (WTP), a complete treatment facility. Before treatment at the WTP, the city adds potassium permanganate at the Tomhannock Reservoir in an effort to lower the formation of disinfection byproducts (DBPs) that may be formed by downstream treatment processes. Potassium permanganate is a strong oxidant used to oxidize iron and manganese and does not produce the DBPs that chlorine does. Potassium permanganate is fed seasonally from mid-June to September/October depending on the iron and manganese concentrations in the raw water. The City of Troy then adds chlorine dioxide year-round at Melrose Station to oxidize any organic material native to the raw water to further reduce the formation of DBPs. Unlike chlorine, chlorine dioxide does not form DBPs like THM's or HAA5's. Finally, the partially treated water flows to the WTP where conventional treatment practices like coagulation, flocculation, sedimentation, filtration, and chlorination occur. The city continuously monitors free chlorine residuals and modifies disinfectant doses to ensure adequate residual disinfection levels. The city also adds

fluoride to promote public health and to protect teeth against dental cavities. During 2023 there were no source water restrictions.

Finished water from the WTP is transmitted to the village by way of a 20-inch diameter pipeline that is encased in concrete and which runs under the Hudson River. Water is pumped into our distribution system and into two covered concrete reservoirs with a combined total storage capacity of 2,270,000 gallons. Storage allows us to meet consumer demand and provide adequate fire protection. We maintain a pressure booster pumping station for our residents in the Sky Hollow/Sage Hill Lane areas. In the event of an emergency, there are interconnects via two 10-inch diameter pipelines with the City of Watervliet and the Latham Water District.

WHAT IS THE SOURCE WATER ASSESSMENT PROGRAM (SWAP)?

To emphasize the protection of surface and groundwater sources used for public drinking water, Congress amended the Safe Drinking Water Act (SDWA) in 1996. The amendments require the New York State Department of Health's Bureau of Public Water Supply Protection to ensure that individual Source Water Assessments (SWAs) 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 SWA 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 potentially contaminated

The NYSDOH has completed a SWA for the Tomhannock Reservoir. The Source Water Assessment, as summarized below, includes a susceptibility rating based on the risk posed by each potential source of contamination and how likely contaminants could enter the reservoir. 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 levels of contaminants in your water.

The SWA found that the significant area of pastureland within the assessment area results in a potential for protozoa contamination. Additional susceptibility was determined due to the presence of landfills within 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. It should also be noted that the City of Troy's WTP performs multi-level treatment to ensure that residents of Troy and purchasers of their treated water (like the Village of Menands) receive safe drinking water. 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.

FACTS AND FIGURES

Our water system serves a residential population of approximately 4,508 people through 1,032 service connections. The average daily demand was 780,000 gallons and the single highest daily demand was 1,280,000 gallons, which occurred on June 22, 2023. The total water purchased from Troy in the billing period between November 1, 2022 and October 31, 2023 was 289,360,000 gallons. Of the total water purchased, a volume of 199,420,000 gallons was delivered directly to customers. As a result, a total of 89,940,000 gallons (or 31.1%) is considered "unaccounted for water". This can be attributed to water usage for fire protection, water system flushing/maintenance, and losses in the transmission and distribution system (water main breaks and leaks). The village regularly has comprehensive leak detection surveys performed on their system. The charge for water during the last billing cycle was \$4.75 per 1,000 gallons.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the state regulations require, the village's drinking water is routinely monitored for myriad contaminants by the City of Troy, the source of the village's public water system (see Appendix A – City of Troy 2023 Table of Detected Contaminants). The City of Troy regularly tests for total coliform, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, radiological and synthetic organic compounds. The village supplements the city's sampling and tests for lead, copper, and disinfection byproducts. The village is also required to test a minimum of five samples for coliform bacteria each month.

The table presented below depicts compounds that the Village detected in your drinking water; compounds that were tested for but not detected are omitted from the table. Note that the state allows us to test for some contaminants less than once per year because they are known to exhibit stable concentrations that vary infrequently. Some of our data, though representative, are more than one year old.

It should be noted that all drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791) or the Albany County Health Department at (518) 447-4620.

| MENANDS WATER DEPARTMENT TABLE OF DETECTED CONTAMINANTS FOR 2023 Public Water Supply Identification Number NY 100200 | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------------------------------------|------------------|------|------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Contaminant | Violation Y/N | Level Detected | Unit Measurement | MCLG | MCL | Likely Source of Contamination |
| Inorganic Contaminants (Samples from 8/25/21 to 9/2/21 unless otherwise noted) | | | | | | |
| Copper* Range | N | 0.08026 ¹ 0.0073-0.217 | mg/L | 1.3 | (AL) 1.3 | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives |
| Lead Range | N | 0.0027 <0.0010-0.013 | mg/L | 0.0 | (AL) 0.015 | Corrosion of household plumbing systems; erosion of natural deposits; |
| Disinfection Byproducts (Quarterly Samples from 2/23, 5/23, 8/23, & 11/23) | | | | | | |
| Stage 2 Haloacetic Acids (HAA5) Highest LRAA Range of values for HAA5 | N | 41.03 ² 20.1-48.9 ³ | ppb | N/A | 60 | Byproduct of drinking water disinfection needed to kill harmful organisms. |
| Stage 2 Total Trihalomethanes (TTHM) Highest LRAA Range of values for TTHM | N | 64.8 ² 29.9-74.7 | ppb | N/A | 80 | Byproduct of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains organic matter. |
| 1. The level presented represents the 90th percentile of the 30 samples collected. The action level for copper was not exceeded at any of the 19 sites tested. 2. The level presented represents the highest Locational Running Annual Average (LRAA) witnessed in 2023. 3. The range presented represents the highest and lowest quarterly sampling values witnessed in 2023. | | | | | | |

Definitions:

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 (AL) - The concentration of a contaminant, which, if exceeded, triggers treatment, or other requirements, which a water system must follow.

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

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

Maximum Contaminant Level Goal -The “Goal” (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL) - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG) - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

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

N/A - Not applicable.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system had no violations in 2023. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below the level allowed by the New York State.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

In 2023, our system received two Notice of Violations from the NYSDOH. One violation, issued August 8, 2023, was due to a failure to submit the 2022 Annual Water Quality Report to the NYSDOH by the required date. The second violation, issued December 29, 2023, was due to a failure to maintain a Grade D certified operator for the 2024 operating period. Notices of both violations are included with this report and corrective actions have been implemented to ensure the Village is no longer in violation. Neither violation pertained to water quality issues and the system was otherwise in compliance with applicable state drinking water operating, monitoring and reporting requirements.

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).

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 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.

In 2023 there was a partial interruption to fluoride addition. Since June of 2021, supplemental fluoride has been difficult to procure from the manufacturer due to supply chain issues and has therefore not been added. In 2023, however, Troy was able to find sourcing and fluoride addition was restored.

INFORMATION ON LEAD

We are required to present the following information on lead in drinking water:

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 City of Troy and the Village of Menands are 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>

WHY SAVE WATER AND HOW TO AVOID WASTING IT?

Although our system has an adequate amount of water to meet present and future demands, there are several reasons why it is important to conserve water:

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

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

- ◆ Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- ◆ Turn off the tap when brushing your teeth.
- ◆ Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- ◆ Check your toilets for leaks by putting a few drops of food coloring in the tank, watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you save more than 30,000 gallons a year.
- ◆ Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances, then check the meter after 15 minutes. If it moved, you have a leak.

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.

Appendix A
City of Troy 2023 Annual Water Quality Report

City of Troy
Annual Drinking Water Quality Report for 2023

Public Water Supply ID# 4100050



City of Troy
Department of Public Utilities
25 Water Plant Road
Troy, New York 12182
Phone: (518) 237-0319
Fax: (518) 233-7038
www.troyny.gov

Water Billing Inquires
(518) 279-7100

Introduction

To comply with State and Federal regulations, 10 NYCRR, Subpart 5-1.72 and 40CFR Part 141, Subpart O, respectively, the City of Troy, Department of Public Utilities is issuing this annual report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and increase your awareness of the need to protect our drinking water sources. Last year, we conducted tests for over 50 contaminants. We detected 10 of those contaminants, and only found 1 of those contaminants at a level higher than the State allows. As we told you at that time, our water temporarily exceeded a drinking water standard, and we rectified the problem by working with state and federal regulators to follow the lead and copper rule and developed a plan to replace lead service lines. This report provides an overview of last year's water quality. Included in the report are details about where your water comes from, what it contains, and how it compares to State standards.

If you have any questions about this report or concerning your drinking water, please contact the City of Troy, Department of Public Utilities at 518-237-0319. If you want to learn more, please attend any of the regularly scheduled City Council meetings. The meetings are held the first Thursday of each month at the Troy City Hall, 433 River Street, 5th Floor.

Where Does Our Water Come From?

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 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 Health Department and the 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.

The water source for the City of Troy is the Tomhannock Reservoir, a man-made reservoir 6 ½ miles northeast of the city. The reservoir is 5 ½ miles long and holds 12.3 billion gallons when full. The quality of the water from the Tomhannock Reservoir is good to excellent. During 2023, the city did not experience any restriction of our water source. Water flows from the reservoir by gravity where seasonally potassium permanganate is added at the intake and at the Melrose Chlorination Station the water is pre-disinfected with chlorine dioxide all year long. The water then flows to the John P. Buckley Water Treatment Plant (WTP) a conventional water treatment plant utilizing coagulation, flocculation, sedimentation, filtration, chlorination and fluoridation processes.

The New York State Health Department completed a Source Water Assessment for the Tomhannock Reservoir. It includes a susceptibility rating based on the risk posed by each potential source of contamination and how likely contaminants could enter the reservoir and is only 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. The assessment found an elevated susceptibility to contamination for this source of drinking water. The amount of agricultural land in the assessment area results in an elevated potential for protozoa and pesticides contamination, however, there is reason to believe that the land cover data may over estimate the percentage of row crops in the assessment area. While there are some facilities present, permitted discharges do not likely represent an important threat to source water quality, based on their density in the assessment area. In addition, it appears that the total amount of wastewater discharged to surface water in this assessment area is not high enough to further raise the potential for contamination (particularly for protozoa). There is also noteworthy contamination susceptibility associated with other discrete contaminant sources, and these facility types include mines and closed landfills. 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.

Facts and Figures

The City of Troy, Department of Public Utilities serves water to over 50,000 residents of Troy, as well as the industrial and commercial customers within the city, through over 13,000 service connections. In addition, the city wholesales water to the City of Rensselaer, Towns of East Greenbush, North Greenbush, Brunswick, Schaghticoke, Poestenkill, and Halfmoon, and Villages of Menands and Waterford. The total finished water produced at the water treatment plant in 2023 was 5861.7 million gallons or an average of 16.1 million gallons a day. Of this, 1,273.59 million gallons were accounted for through metered sales within the city, with the remainder being used for the wholesale customers and the unaccounted for water. The unaccounted-for water is estimated to be about 30%. In 2023, water customers within the city of Troy were charged \$ 4.032 per 1,000 gallons of water.

Are There Contaminants In Our Drinking Water?

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, radiological and synthetic organic compounds. The table presented below depicts which compounds were detected in your drinking water. The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

It should be noted that all drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791) or the Rensselaer County Department of Health 518-270-2711

We are required to present the following information on lead in drinking water:

If present, elevated levels of lead can cause serious health problems, especially for pregnant women, infants, and young children. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. The City of Troy is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. In 2022 there was an exceedance to the lead and copper rule. The City of Troy has implemented a plan to minimize lead levels in your drinking water. This program includes: 1) a study of the corrosion control program currently being implemented, 2) Conducting a water service line survey/inventory to better sample lead service line; 3) public education and 4) implementing a lead service line replacement program. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

What Does This Information Mean?

The table shows that our system uncovered some problems this year due to an exceedance of the 90th percentile for lead. It should be noted that the action level for lead was exceeded, meaning the city has detected lead levels above the action level in more than ten percent of the homes tested. We are required to present the following information on lead in drinking water:

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 City of Troy 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 the Department of Public Utilities at 518-237-0343 or www.troyny.gov/lead. 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>.

Is Our Water System Meeting Other Rules That Govern Operations?

The City of Troy is in violation of State lead and copper control requirements for an exceedance of the 90th percentile and is required to 1) study the corrosion control program currently being implemented, 2) Conduct water service line survey/inventory to better sample lead service lines; 3) complete a public education program. Therefore, we must include the following statement in this report: "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 disabilities. Adults who drink this water over many years could develop kidney problems or high blood pressure."

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

City of Troy Failed to Meet Public Water System Requirements

Our water system recently violated a drinking water requirement. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we are doing to correct this situation.

The New York State Sanitary Code requires certain water systems to develop and keep up to date water supply emergency plans. These plans must be submitted to the New York State Department of Health for review and approval. Our water system was issued a violation in 2021 for not meeting these water supply emergency plan update requirements. Our system did not take the required corrective actions required by the New York State Department of Health and was issued a second violation as a result. We are required to issue this public notification to inform you of the second violation.

What should I do?

There is nothing you need to do. You do not need to boil your water or take any other corrective actions. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

What does this mean?

This is not an emergency. If it had been an emergency, you would have been notified within 24 hours.

What is being done?

Upon receipt of the notice of violation on January 4th, 2024, we started the process of updating our emergency plan and vulnerability assessment. Updated versions of both documents were hand delivered to the Rensselaer County Health Department office on January 23rd, 2024, for review from the state and county health departments. For more information, please contact The City of Troy Department of Public Utilities at 518-237-0611 or by email at troydpu@troyny.gov.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

Other Violations

The City of Troy is writing to notify you that samples collected from the water system for Total Trihalomethanes (**THM**) exceeded Environmental Protection Agency (EPA) guidelines. A number of factors contributed to an increase in THM levels including warm weather, the unusually wet summer we experienced, and corrosion control efforts the city has put in place to prevent lead from dissolving into water from lead service lines or home plumbing. Additional details regarding THM's may be found below.

The samples collected from the water system exceeded the Maximum Contaminant Level (**MCL**) for Total Trihalomethanes (**THM**) for the levels established by the Environmental Protection Agency (EPA). THM samples are collected 4 times per year (quarterly) at 4 different locations in the city (Griswold Heights, Cookie Factory, Campbell Ave Fire Station and Deli & Bew). These 4 quarterly results are averaged together to achieve the "Running Annual Average" (**RAA**). The MCL for a RAA for THM is 80 Parts Per Billion (**ppb**), the RAA for the Griswold Heights location was 81.4 ppb.

What are Trihalomethanes (THM)?

THM's are a group of chemicals that are formed in drinking water during disinfection when chlorine reacts with naturally occurring organic material (decomposing vegetation from trees, leaves, algae or other aquatic plants) in surface drinking water sources, such as reservoirs, rivers and lakes. They are referred to as "disinfection byproducts (**DBP**)" and include the following individual chemicals: *chloroform*, *bromoform*, *bromodichloromethane* and *chlorodibromomethane*. The amount of these chemicals formed can change from day to day, depending on temperature, the amount of organic material present in the water, the amount of chlorine added to disinfect the water and a variety of other factors.

Chlorine as a disinfectant in drinking water is beneficial to public health. It is used by public water suppliers to kill bacteria and viruses that could cause serious illness and is the most commonly used disinfectant in New York State. All public water systems that use chlorine as a disinfectant will have THM's to some degree.

What are the health effects of trihalomethanes?

Some studies suggest that people who drank water containing THM's for long periods of time (e.g., 20 to 30 years) have an increased risk of certain health effects. These include an increased risk for cancer and for low birth weights, miscarriages, and birth defects. The methods used by these studies could not rule out the role of other factors that could have resulted in the observed increased risks. In addition, other similar studies do *not* show an increased risk for these health effects. Therefore, the evidence from these studies is *not* strong enough to conclude that THM's were a major factor contributing to the observed increased risks for these health effects.

Studies of laboratory animals show that some THM's can cause cancer and adverse reproductive and developmental effects but at exposures much higher than exposures that could result through normal use of the water. The USEPA reviewed the information from the human and animal studies and concluded that while there is no causal link between DBP's (including THM's) and human health effects, the balance of the information warranted stronger regulations that limit the amount of THM's in drinking water, while still allowing for adequate disinfection. The risks for adverse health effects from THM's in drinking water are small compared to the risks for illness from drinking inadequately disinfected water.

Do I Need to Take Special Precautions?

Some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

Information on Fluoride Addition

In 2023 there was an interruption to fluoride addition. Since June of 2021, supplemental fluoride has been difficult to procure from the manufacturer. Fluoride addition has recently been restored in 2023. The cause of the interruption was due to supply chain issues.

Why Save Water and How to Avoid Wasting It?

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

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

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

- Automatic Dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank, watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances, then check the meter after 15 minutes, if it moved, you have a leak.

System Improvements

The Department of Public Utilities has been very busy in 2023 repairing water mains, hydrants and critical parts of our sewer infrastructure. We have been replacing lead service lines to eliminate lead exposure in our residents. In 2024 significant upgrades will be made at the treatment plant and pumping station.

Combined Sewer Overflows (CSO's)

The City of Troy in cooperation with the City of Albany Water Board, the cities of Cohoes, Rensselaer, Watervliet and the Village of Green Island joined in a venture to develop a CSO Long Term Control Plan (LTCP), with the Capital District Regional Planning Commission coordinating the project. This is being done as mandated by the NYSDEC and USEPA to comply with the National CSO Control Policy. The communities mentioned conducted the monitoring, sampling and analysis in the summer of 2008 to identify the issues associated with CSO's during wet weather events. The results are being used to determine CSO impacts to the receiving water bodies, i.e. Hudson River, and to develop the required LTCP. NYSDEC implemented a final plan for the communities to reduce the amount of CSO's. For more information please visit www.cdrpc.org/CSO.html

Municipal Separate Storm Sewer Systems (MS4)

The City of Troy in cooperation with other Rensselaer County communities, the NYSDEC and the EPA have been working with the county and local governments to help control storm water run-off and try to educate and inform the public about stormwater. Stormwater should naturally seep into the ground, but impervious areas restrict this process causing flooding and pollution. For questions and brochures please visit:

www.troyny.gov/departments/public-utilities/stormwater-management/, www.epa.gov/npdes/stormwater

Closing

Thank you for allowing us to provide your family with quality drinking water in 2023. We will continue to strive to improve and deliver you safe drinking water for years to come. We ask that all our customers help us protect our local water sources, which are the heart of our community and our way of life. The Rensselaer Land Trust is interested in helping us protect the Tomhannock Watershed. For more information visit their website at www.renstrust.org or write to RTLC, 415 River St., Troy, NY 12180.

Definitions:

* Lead and Copper are reported at 90th percentile, where 90% of samples collected are less than the average value. Four of the thirty lead samples collected were above the Action Level (AL) of 0.015 mg/l.

** 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.

*** A violation occurs when a total coliform positive sample is positive for E. coli or when a total coliform positive sample is negative for E. coli but a repeat total coliform sample is positive and the sample is also positive for E. coli.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or requirements which a water system must follow.

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

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

Nephelometric Turbidity Unit (NTU): A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Milligrams per liter (mg/l): Corresponds to one part of liquid in one million parts of liquid (parts per million ppm).

Micrograms per liter (ug/l): Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

Picocuries per liter (pCi/l): Corresponds to 0.037 disintegrations per second per liter. The average activity within the human body from Potassium-40 is 0.1 micro curies.

| TABLE OF DETECTED CONTAMINANTS | | | | | | | | | | |
|--------------------------------|---------------------|-----------------------------------|---------------------|-------|-------------------------|-------------------|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Contaminant | Violation Yes/No | Date or Frequency of Sample | Level Detected | | Unit Measure ment | MCLG MRDL G | Regulatory Limit (MCL, TT, MRDL, AL) | Likely Source of Contamination | | |
| | | | Value or Average | Range | | | | | | |
| | | | | Low | | | | | | High |
| Physical and Chemical Analytes | | | | | | | | | | |
| Color | No | Daily | 3 | <1 | 6 color units | n/a | 15 | Large quantities of organic chemicals, inadequate treatment, high disinfectant demand and the potential for production of excess amounts of disinfectant by products such as trihalomethanes, the presence of metals such as copper, iron and manganese; Natural color may be caused by decaying leaves, plants, and soil organic matter | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Turbidity | No | Daily | 0.74 | 0.06 | 5.30 | NTU | n/a | 5 | Soil runoff | |
| Chlorine Residual | No | Daily | 0.81 | 0.64 | 1.19 | mg/L | 4 | 4.0 | Water additives used to control microbes. | |
| Chlorine Dioxide Residual | No | Daily | 0.004 | 0.00 | 0.11 | mg/L | 0.8 | 0.8 | Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories | |
| Fluoride | No | Daily | 0.84 | 0.33 | 1.15 | mg/L | n/a | 2.2 | | |
| Disinfection By-Products | | | | | | | | | | |
| Trihalomethanes (THM) | | | | | | | | | | |
| Campbell Ave FS | No | Quarterly | 76.1 | 44.1 | 131.1 | ug/L | n/a | 80.0 | By-product of drinking water chlorination/disinfection needed to kill harmful organisms. TTHMs are formed when source water contains organic matter | |
| Griswold Heights | No | Quarterly | 77.6 | 47.9 | 135.1 | ug/L | n/a | 80.0 | | |
| Cookie Factory | No | Quarterly | 74.6 | 49.0 | 126.4 | ug/L | n/a | 80.0 | | |
| Deli & Brew | No | Quarterly | 73.9 | 45.6 | 120.6 | ug/L | n/a | 80.0 | | |
| Haloacetic acids (HAA) | | | | | | | | | | |
| Campbell Ave FS | No | Quarterly | 38.0 | 25.1 | 56.7 | ug/L | n/a | 60.0 | By-product of drinking water disinfection at treatment plants using chlorine dioxide | |
| Griswold Heights | No | Quarterly | 34.7 | 20.7 | 53.3 | ug/L | n/a | 60.0 | | |
| Cookie Factory | No | Quarterly | 36.5 | 20.6 | 55.0 | ug/L | n/a | 60.0 | | |
| Deli & Brew | No | Quarterly | 36.0 | 24.6 | 54.8 | ug/L | n/a | 60.0 | | |
| Chlorite | No | Monthly | 0.74 | 0.60 | 0.95 | mg/L | n/a | 1.00 | | |
| Chlorate | No | Monthly | 0.16 | 0.10 | 0.22 | mg/L | n/a | n/a | | |
| Lead and Copper | | | | | | | | | | |
| Lead * (Jan-June 2023) | Yes | Bi-annually | 30.9 | <0.1 | 78.7 | ppb | 0.0 | (AL) 15.0 | Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives (Cu) | |
| Copper * (Jan-June 2023) | No | Bi-annually | 110.0 | 3.8 | 427.0 | ppb | 1300 | (AL) 1300 | | |
| Lead * (July-Dec 2023) | Yes | Bi-annually | 35.4 | <0.1 | 171.0 | ppb | 0.0 | (AL) 15.0 | | |
| Copper * (July-Dec 2023) | No | Bi-annually | 227.0 | 3.8 | 700.0 | ppb | 1300 | (AL) 1300 | | |

TABLE OF DETECTED CONTAMINANTS

| TABLE OF LEVEL DETECTED CONTAMINANTS | | | | | | | | | | |
|--------------------------------------|------------------|-----------------------------|------------------|------------------------|----------|--------------|-------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| Contaminant | Violation Yes/No | Date or Frequency of Sample | Value or Average | Level Detected | | Unit Measure | MCLG MRDL G | Regulatory Limit (MCL, TT, MRDL, AL) | Likely Source of Contamination | |
| | | | | Range | Low High | | | | | |
| Inorganic Chemicals | | | | | | | | | | |
| Barium | No | 7/10/2023 | 0.0252 | - | - | mg/L | 2.0 | 2.0 | Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits | |
| Chloride | No | 7/10/2023 | 22.4 | - | - | mg/L | n/a | 250.0 | Naturally occurring or indicative of road salt contamination | |
| Iron | No | Weekly | 0.03 | 0.02 | 0.03 | mg/L | n/a | 0.3 | Naturally occurring | |
| Manganese | No | Weekly | 0.01 | 0.01 | 0.02 | mg/L | n/a | 0.3 | Naturally occurring; Indicative of landfill contamination | |
| Nitrate-as N | No | 7/6/2022 | 0.068 | - | - | mg/L | 10.0 | 10.0 | Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits | |
| Sodium ** | No | 7/6/2022 | 10.3 | - | - | mg/L | n/a | ** | Naturally occurring; Road salt; Water softeners; Animal waste | |
| Sulfate | No | 7/6/2022 | 19.9 | - | - | mg/L | n/a | 250.0 | Naturally occurring | |
| Organic Chemicals | | | | | | | | | | |
| 2,4-D | No | 8/1/2023 | 0.13 | - | - | ug/L | n/a | 70.0 | 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 | No | 8/1/2023 | 1.0 | - | - | ug/L | n/a | 200.0 | Runoff from herbicide used on rights of way | |
| Radiological | | | | | | | | | | |
| Gross Alpha Particles | No | 10/17/2022 | -0.088 | 1 sample every 6 years | | | pCi/l | 0 | 15.0 | Decay/erosion of natural deposits and man-made emissions |
| Gross Beta Particles | No | 10/17/2022 | 0.819 | | | | pCi/l | 0 | 4.0 | |
| Radium 226 | No | 10/17/2022 | 0.082 | | | | pCi/l | 0 | 5.0 | |
| Radium 228 | No | 10/17/2022 | 0.450 | | | | pCi/l | 0 | 5.0 | |
| Total Uranium | No | 10/17/2022 | ND | | | | ug/L | 0 | 30.0 | |

TABLE OF NON-DETECTED CONTAMINANTS

| TABLE OF NON-SELECTED CONTAMINANTS | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Inorganic Chemicals | |
| Antimony (Graphite), Arsenic, Asbestos, Beryllium, Cadmium, Chromium, Cyanide, Mercury, Nickel, Nitrite (as N), Selenium, Silver, Thallium, Zinc | |
| Organic Chemicals | |
| PFOCs (PFOA/PEAS), 1,4 Dioxane, Alachlor, Aldrin, gamma-BHC (Lindane), Chlordane (Technical), Dieldrin, Endrin, Heptachlor, Heptachlor epoxide, Hexachlorobenzene, Hexachlorocyclopentadiene, Methoxychlor, PCB Screen, Toxaphene, Dicamba, Dinoseb, Pentachlorophenol, Picloram, 2,4,5-Tp Aldicarb, Aldicarb sulfone, Aldicarb sulfoxide, Carbofuran, 3-Hydroxycarbofuran, Methomyl, Oxamyl, Carbaryl, Atrazine, Benzo(a)pyrene, Butachlor, bis(2-Ethylhexyl)adipate, bis(2-Ethylhexyl)phthalate, Metolachlor, Metribuzin, Propachlor, Simazine, Benzene, Bromobenzene, Bromochloromethane, Bromomethane, n-Butylbenzene, sec-Butylbenzene, tert-Butylbenzene, Carbon tetrachloride, Chlorobenzene, Chloroethane, Chloromethane, 2-Chlorotoluene, Dichloroethane, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Dichlorodifluoromethane, 1,1-Dichloroethane, 1,2-Dichloroethane, 1,1-Dichloroethene, trans-1,2-Dichloroethene, 1,2-Dichloroethene, 1,3-Dichloropropane, 2,2-Dichloropropane, 1,1-Dichloropropane, cis-1,3-Dichloropropane, trans-1,3-Dichloropropane, Ethylbenzene, Hexachloro-1,3-butadiene, Isopropylbenzene(Cumene), p-Isopropylbenzene, 1,2,4-Trichlorobenzene, 1,1,1-Trichlorobenzene, Styrene, 1,1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, Tetrachloroethene, Toluene, 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichloroethene, Trichlorofluoromethane, 1,2,3-Trichloro-1,2,4-Trichlorobenzene, 1,3,5-Trimethylbenzene, Vinyl chloride, m&p-Xylene, o-Xylene, 1,2,3-Trichloropropane, 1,2-Dibromoethane (EDB), 2,2-Dibromo-3-chloropropane | |

MICROBIOLOGICAL TABLE

| Total Coliform Bacteria | No | Weekdays | 0.15% | - | - | % | 0 | 5% | Naturally present in the environment |
|-------------------------|----|----------|-------|---|---|---|---|-----|--------------------------------------|
| E.Coli *** | No | Weekdays | 0 | - | - | - | 0 | *** | Human and animal fecal waste |

* Lead/Copper are reported at the 90th percentile, where the result shown is the 90th % sample of the total number of samples collected.
 ** 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.
 *** A violation occurs when a total coliform positive sample is positive for *E. coli* or when a total coliform positive sample is negative for *E. coli* but a repeat total coliform sample is positive and the sample is also positive for *E. coli*.

Appendix B
2023 Notice of Violations



DANIEL P. McCOY
County Executive

ELIZABETH F. WHALEN, MD, MPH
Commissioner of Health

DEPARTMENT OF HEALTH
COUNTY OF ALBANY
175 GREEN STREET
ALBANY, NEW YORK 12202

The Dr. John J.A. Lyons
ALBANY COUNTY HEALTH FACILITY
(518) 447-4580 FAX (518) 447-4698
www.albanycounty.com

MARIBETH MILLER, BSN, MS
Assistant Commissioner for Public Health

RANSOM MOORE III
Assistant Commissioner Finance and Administration

August 8, 2023

Don Handerhan
Village of Menands
280 Broadway
Menands, NY 12204

Re: Village of Menands
NY0100200
Notice of Violation 2023 711

Dear Mr. Handerhan,

This Notice of Violation is a result of your failure to provide the 2022 Annual Water Quality Report to this office.

Section 5-1.72 (e)-(h) of the New York State Sanitary Code requires that the Village of Menands prepares and provides an Annual Water Quality Reports to their customers.

You are required to notify the public within 1 year of receiving this Notice of Violation. The public notification certification form must be completed and returned to this office within 10 days of completion of public notification along with a copy of the distributed notice.

Community water systems must include this violation in their 2023 Annual Water Quality Report.

If you have any questions, do not hesitate to contact the Albany County Department of Health at (518) – 447 – 4620.

Sincerely,

Maxwell Ferris, P.E.
Director
Division of Environmental Health Services



Albany County Department of Health is nationally accredited and meets rigorous public health standards set forth to best meet the needs of our community.



DANIEL P. McCOY
County Executive

DEPARTMENT OF HEALTH
COUNTY OF ALBANY
175 GREEN STREET
ALBANY, NEW YORK 12202

The Dr. John J.A. Lyons
ALBANY COUNTY HEALTH FACILITY
(518) 447-4580 FAX (518) 447-4698
www.albanycounty.com

MARIBETH MILLER, BSN, MS
Interim Commissioner for Public Health

RANSOM MOORE III
Assistant Commissioner Finance and Administration

December 29, 2023

Mike Hagmann
280 Broadway
Village of Menands NY 12204

Re: Menands Village
NY0100200
Notice of Violation No. 2024 714

Dear Mr. Hagmann,

This Notice of Violation (NOV) is a result of your failure to maintain a Grade D certified operator for the 2024 operating period.

Section 5-4 of the New York State Sanitary Code requires that a designated operator of responsible charge is available to make decisions regarding the daily operations of the public water system that will directly impact the quality and/or quantity of drinking water.

Failure to comply with the requirements will result in enforcement actions. Public notification of this violation is required. Community water systems must include this violation in their 2022 Annual Water Quality Report.

If you have any questions, do not hesitate to contact the Albany County Department of Health at (518) - 447 - 4620.

Sincerely,

Maxwell Ferris, P.E.
Director
Division of Environmental Health Services



Albany County Department of Health is nationally accredited and meets rigorous public health standards set forth to best meet the needs of our community.