North Greenbush Consolidated Water District

2 Douglas Street Wynantskill NY, 12198

PWS ID#4130243

Introduction

To comply with State and Federal regulations, the Town of North Greenbush 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 increase your 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 water quality standard. 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 Town of North Greenbush Utilities Department, (518) 283-2574.** We want you to be informed about your drinking water. If you want to learn more, please attend any of the regularly scheduled town board meetings. The meetings are held on the 2nd Thursday of each month at 7:00 PM at Town Hall, 2 Douglas Street, Wynantskill, New York.

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 Health Department and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Departments 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 Town of North Greenbush is the City of Troy (City), Troy uses 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 2021, the City of Troy and Town of North Greenbush did not experience any restriction of water. Water flows from the reservoir by gravity where seasonally Potassium Permanganate is added, and then at the Melrose Chlorination Station the water is pre-disinfected with chlorine dioxide. 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 Town of North Greenbush re-chlorinates the water supplied by the City of Troy in order to provide for acceptable chlorine residual in the water as required by New York State Department of Health. There are two (2) chlorination stations located in town, one on Winter Street Extension west of Cameron Road and the second is located on Main Avenue east of the Troy City Line. The Snyders Lake Road Water Pump Station also has facilities to re-chlorinate the water if necessary.

The City of Troy sells water to the Town of North Greenbush at several locations including water mains on Pawling Avenue at the city/town line, at Winter Street Extension near the city/town line and US Route 4 near Williams Road. The Town of North Greenbush also buys City water from the Town of East Greenbush/ City of Rensselaer Joint Facilities (36" water main) located along US Route 4 (North Greenbush Road), there are several connections to the 36" water main. From these connections, the western portion of the Town of North Greenbush is supplied with City of Troy water.

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 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 overestimate 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 Town of North Greenbush Utilities Department supplies water to approximately 5,100 residents of the town, including several commercial and industrial customers. Most notable is RPI Tech Park located off US Route 4 in the western part of the town.

In 2016 the various Town of North Greenbush authorized Water Districts were consolidated into one water district (Public Water System ID# NY4130243).

Water Rates

Most residential, industrial and commercial customers pay the same water rate per water district, See the attached "Town of North Greenbush 2021 Water Rates/Costs". Effective May 1, 2007, the rate that the Town of North Greenbush paid to the Town of East Greenbush/City of Rensselaer Joint Water District for water increased from $3.70 to $4.95 per 1,000 gallons. Effective August 1, 2011, the rate that the Town of North Greenbush paid to the Town of East Greenbush/City of Rensselaer Joint Water District for water increased from $4.95 to $5.95 per 1,000 gallons which is the city of Rensselaer resident's rate. In 2016, the Town of North Greenbush paid $3.9468 per 1,000 gallons of water directly from the City of Troy. The City of Troy residential rate is $3.43 per 1,000 gallons contractually the City of Troy adds an additional 15% to the city rate. The Town of North Greenbush adds an additional $0.45 - $0.59 per 1,000 gallons of water usage, to its customer's water rate per 1,000 gallons to pay for flushing of fire hydrants and any other unaccounted water usage in the district.

All services are metered at individual customer location. Master water meters are located at connections where water is purchased from either the City of Troy or the Town of East Greenbush/City of Rensselaer Joint Water District Facilities. Some water is unaccounted for, this water is used to pressure test and chlorinate new water mains, flush existing water mains and fire hydrants, to train fire-fighting personnel, to fight fires and occasional leakage in the water system. Unaccounted for water is estimated to be approximately 10% in 2021.

Are There Contaminants In Our Drinking Water?

Water quality testing is required of all public water systems by Part 5 of the New York State Sanitary Code. According to these requirements, the City of Troy and the Town of North Greenbush routinely tests your drinking water for numerous contaminants. These contaminants include: total coliform, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, and synthetic organic compounds. The attached tables indicate which contaminants were detected and which were not, for the City of Troy and Town of North Greenbush.

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 and Town of North Greenbush 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 (1-800-426-4791) or at http://www.epa.gov/safewater/lead.

It should be noted that all drinking water, including bottled drinking water, may reasonably be 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 Health Department at (518) 270-2626.

What Does This Information Mean?

We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below New York State requirements. They are also indicated in the table below as non-detected contaminants.

Is Our Water System Meeting Other Rules That Govern Operations?

During 2021, our system observed no violations for State drinking water operating, monitoring and reporting requirements.

Do I Need to Take Special Precautions?

Although our drinking water met the state and federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immune-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 of Fluoride Addition

Our system is one of the many drinking water systems in New York State that provides drinking water with a controlled, low level of fluoride for consumer dental health protection. According to the United States Centers for Disease Control, fluoride is very effective in preventing cavities when present in drinking water at an optimal range from 0.8 to 1.2 mg/l (parts per million). To ensure that the fluoride supplement in your water provides optimal dental protection, the State Department of Health requires that fluoride levels are monitored on a daily basis. During 2021 monitoring showed fluoride levels in your water were in the optimal range 100 % of the time. None of the monitoring results showed fluoride at levels that approach the 2.2 mg/l MCL for fluoride.

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 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.

There are many measures that customers can take to conserve water. 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. Run it only when you have loaded 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

During 2016 the Town of North Greenbush consolidated the water districts into one water district. This consolidation results in financial savings primarily thru the elimination of duplicative administrative costs associated with planning, budgeting, accounting and operational costs associated with water sampling.

System Maintenance

The Town of North Greenbush Utilities Department is in charge of all maintenance on the water system. Routine maintenance such as fire hydrant flushing and repairs are performed each year. Several fire hydrants are repainted on an annual basis and a program to color code with paint tops and the outlet nozzle caps of the fire hydrants (in accordance with their rated capacities as per AWWA recommendations) was started in 2006 and continued in 2021. Several water valve boxes are inspected and cleaned annually. Preventative maintenance was completed on large Pressure Reducing Valves (PRV) Chambers. Residential water meters are being upgraded to radio read meters. The Utilities Department personnel repair minor water leaks while outside contractors repair any major leaks. No major leaks or main breaks were reported in 2021. Additionally, Utilities Department personnel are responsible for the operation and maintenance of two chlorination stations (Main Avenue and Winter Street Ext), two water-pumping stations (Snyders Lake Road and Sharpe Road) and two water storage tanks (Snyders Lake and Pond Hill).The Snyders Lake water storage tank was flushed to increase water quality.

Closing

Thank you for allowing us to continue to provide you and your family with quality drinking water in 2018. We will continue to monitor and achieve 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. Please call our office at (518) 283-2574 if you have any questions. 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.

Water Usage

PWS ID# 4130243	Gallons Per Year	Rate	O&M	Source
Town of North Greenbush Consolidated Water District (NGCWD)	151,027,000	$4.60	$68.93	Troy
NG Water Rate #2	35,042,160	$6.55	$68.93	Renn/ E. Greebush
TOTAL	186,069,160 Gallons			

Town of North Greenbush 2021 Water Test Results
North Greenbush Consolidated Water District PWS ID# NY4130243
TABLE OF DETECTED CONTAMINANTS

Contaminant	Violation Yes/No	Date or Frequency of Sample	Level Detected			Unit Measurement	MCLG / MRDLG	Regulatory Limit (MCL, TT, MRDL, AL)	Likely Source of Contamination
			Value or Average	Range Low	Range High				
Inorganic Chemicals									
Nitrate-as N	No	Annually	0.3	-	-	mg/l	10.0	10.0	Runoff from fertilizer
MICROBIOLOGICAL TABLE									
Coliform	No	Monthly	Neg	-	-	%	0	5%	Naturally occurring
Lead and Copper									
Lead **	No	2019	0.0014	<0.001	0.007	mg/l		(AL) 0.015	Household plumbing corrosion, erosion of natural deposits.
Copper	No	2019	0.043	<0.02	0.08	mg/l		(AL) 1.30	

Disinfection By-Products									
Contaminant	Violation Yes/No	Date or Frequency of Sample	Level Detected			Unit Measurement	MCLG / MRDLG	Regulatory Limit (MCL, TT, MRDL, AL)	Likely Source of Contamination
			Value or Average	Range Low	Range High				
Total Trihalomethanes									Formed by reaction of chlorine and chlorine dioxide with naturally occurring organics.
Pershing Ave/ Leslie Ave	No	Quarterly	68.9	33.2	94.4	ug/l	n/a	80	
85 Bloomingrove Drive	No	Quarterly	63.3	28.8	84.6	ug/l	n/a	80	
260 SLR	No	Quarterly	65.4	25.7	96.3	ug/l	n/a	80	
225 North Greenbush Road	No	Quarterly	63.4	40.0	92.0	ug/l	n/a	80	
Total Haloacetic Acids									
Pershing Ave/ Leslie Ave	No	Quarterly	35.9	6.0	58.6	ug/l	n/a	60	
85 Bloomingrove Drive	No	Quarterly	51.1	42.2	59.2	ug/l	n/a	60	
260 SLR	No	Quarterly	49.3	38.1	60.8	ug/l	n/a	60	
225 North Greenbush Road	No	Quarterly	46.0	32.3	56.9	ug/l	n/a	60	

NOTE- Pershing Ave was samples 1st an 2nd quarter. Then the address changed to Leslie Ave for 3rd and 4th quarter

* Lead and Copper are reported at 90th percentile, where 90% of samples collected are less than the average value. Two 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.

Definitions:

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 (AA): 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.

City of Troy 2021 Water Test Results
Table of Detected Contaminants

Contaminant	Violation Yes/No	Date or Frequency of Sample	Level Detected			Unit Measurement	MCLG / MRDLG	Regulatory Limit (MCL, TT, MRDL, AL)	Likely Source of Contamination
			Value or Average	Range Low	Range High				
Physical and Chemical Analytes									
pH	No	Daily	**8.48**	6.36	9.05	-	-	NDL	Adjusted at WTP
Temperature	No	Daily	**12.5**	3.4	22.0	° C	n/a	NDL	-
Color	No	Daily	**2**	0	11	color units	n/a	15	Naturally occurring
Turbidity	No	Daily	**0.54**	0.07	2.80	NTU	n/a	5	Soil runoff
Chlorine	No	Daily	**0.82**	0.12	1.14	mg/L	4	4.0	Added disinfectant
Chlorine Dioxide	No	Daily	**0.009**	0.00	0.18	mg/L	0.8	0.8	Added disinfectant
Fluoride	No	Daily	**0.81**	0.16	0.96	mg/L	n/a	2.2	Adjusted at WTP
Alkalinity, as $CaCO_3$	No	Daily	**44.9**	24.4	53.4	mg/L	n/a	NDL	Naturally occurring
Hardness, as $CaCO_3$	No	Weekly	**60.5**	54	70	mg/L	n/a	NDL	Naturally occurring
Disinfection By-Products									
Chlorite	No	Monthly	**0.77**	0.48	1.00	mg/l	n/a	1.00	Formed by reaction of chlorine dioxide with naturally occurring organics.
Chlorate	No	Monthly	**0.21**	0.15	0.28	mg/l	n/a	n/a	
Lead and Copper									
Lead *	Yes	Annually	**0.0182**	<0.001	0.033	mg/l	0.00	(AL) 0.015	Household plumbing corrosion, erosion of natural deposits.
Copper	No	Annually	**0.0858**	0.009	0.141	mg/l	1.30	(AL) 1.30	
Inorganic Chemicals									
Barium	No	7/1/2021	**0.0302**	-	-	mg/L	2.0	2.0	Naturally occurring
Chloride	No	7/1/2021	**22.8**	-	-	mg/L	n/a	250.0	Naturally occurring or road salt
Nitrate- as N	No	7/1/2021	**0.1**	-	-	mg/L	0.10	0.10	
Sodium **	No	7/1/2021	**11.7**	-	-	mg/L	n/a	**	Naturally occurring
Sulfate	No	7/1/2021	**18.3**	-	-	mg/L	n/a	250.0	Naturally occurring
Radiological									
Gross Alpha Particles	No	3/11/2016	**-0.840**	1 sample taken every 6 years		pCi/l	0	15.0	Naturally occurring
Gross Beta Particles	No	3/11/2016	**0.681**			pCi/l	0	4.0	Naturally occurring
Radium 226	No	3/11/2016	**0.456**			pCi/l	0	5.0	Naturally occurring
Radium 228	No	3/11/2016	**-0.144**			pCi/l	0	5.0	Naturally occurring
Total Uranium	No	3/11/2016	**0.167**			Ug/L	0	30.0	Naturally occurring
MICROBIOLOGICAL TABLE									
Coliform	No	Weekdays	**0.0%**	-	-	%	0	5%	Naturally occurring
E.Coli ***	No	Weekdays	**0**	-	-	-	0	***	Human/animal fecal waste
Disinfection By-Products									
Total Trihalomethanes							**Unit Measurement**	NOTE: Trihalomethane and Haloacetic acids are based on a running annual average	
Campbell Ave FS	No	Quarterly	61.2	26.5	119.8		ug/l	80	Formed by reaction of chlorine with naturally occurring organics.
Griswold Heights	No	Quarterly	69.4	35.6	126.7		ug/l	80	
Cookie Factory	No	Quarterly	53.7	23.7	111.1		ug/l	80	
Deli & Brew	No	Quarterly	69.0	35.7	113.8		ug/l	80	
Total Haloacetic acids									
Campbell Ave FS	No	Quarterly	41.2	24.8	62.6		ug/l	60	
Griswold Heights	No	Quarterly	28.3	9.2	39.6		ug/l	60	
Cookie Factory	No	Quarterly	24.8	13.5	34.8		ug/l	60	
Deli & Brew	No	Quarterly	38.8	31.1	56.1		ug/l	60	

TABLE OF NON-DETECTED CONTAMINANTS

Inorganic Chemicals			Organic Chemicals			
Antimony	Cyanide	Nitrite-as N	2,4,5-TP (Silvex)	Aldicarb Sulfoxide	Heptachlor	Pentachlorophenol
Arsenic	Iron	Selenium	2,4-D	Atrazine	Heptachlor Epoxide	PFOC's (PFOA, PFAS)
Asbestos	Manganese	Silver	Alachlor	Carbofuran	Lindane	Toxaphene
Beryllium	Mercury	Thallium	Aldicarb	Chlordane	Methoxychlor	Vinyl Chloride
Cadmium	Nickel	Zinc	Aldicarb Sulfone	Endrin	PCB's	**1,4 Dioxane**
Chromium						