

Annual Drinking Water Quality Report for 2019
East Greenbush General Water District
225 Columbia Turnpike, East Greenbush, NY 12061
Public Water Supply Identification Number NY4100051

INTRODUCTION

To comply with State regulations, East Greenbush General Water District 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, your drinking water met all State drinking water health standards. This report is a snapshot 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.: *Mr. Chris Ochs, Licensed Operator; Nick Marino, General Foreman, Town of East Greenbush, East Greenbush General Water District, 69 Gilligan Road, East Greenbush, NY 12061; Telephone (518) 477-6103.* 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 3rd Wednesday of each month, 7:00 PM at the *Town Hall, 225 Columbia Turnpike, East Greenbush, NY 12061; Telephone (518) 477-4775.*

WHERE DOES OUR WATER COME FROM?

The East Greenbush General Water District purchases its water from the City of Troy. The City of Troy draws its water from a "surface water" supply, the spring fed Tomhannock Reservoir. It is located to the northeast of the City of Troy. Water flows from the Tomhannock Reservoir to the Troy Water Treatment Plant (TWTP), a complete treatment facility. In an effort to lower the formation of disinfection byproducts (DBPs), TWTP adds potassium permanganate at the Tomhannock Reservoir. Potassium permanganate is a strong oxidant that is used to oxidize iron and manganese, but does not produce the DBPs that chlorine does. Potassium permanganate is being fed seasonally from mid-June to about September or October depending on the iron and manganese levels in the raw water. Additionally, chlorine dioxide is added at Melrose Station to oxidize the organic material that leads to the formation of DBPs when it reacts with chlorine but unlike chlorine, chlorine dioxide does not form DBPs. Chlorine dioxide is fed year-round. The treatment process at Troy consists of; coagulation using aluminum sulfate (alum) to cause small particles to stick together when the water is mixed, making larger heavier particles; sedimentation allows the newly formed larger particles to settle out naturally; filtration removes smaller particles by trapping them in sand filters; pH adjustment for corrosion control; and final post chlorination to maintain a chlorine residual in the distribution system to prevent bacterial contamination and fluoridation at low levels to protect teeth. The water purchased by East Greenbush is pumped through the Cross-Street Pump Station. A 36-inch water main along route 4 through North Greenbush carries water to our two 5 million storage tanks at the top of Grandview Drive. This tank distributes water throughout the General Water District. The supply system is jointly owned with the City of Rensselaer.

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.

A copy of the full Source Water Assessment, including a map of the assessment area is available for review by contacting the Rensselaer County Health Department at the number provided in this report.

FACTS AND FIGURES

The East Greenbush General Water District provides water through 5,232 service connections to a population of approximately 12,000 residential and commercial customers. Our average daily demand is 1,562,534 gallons. Our single highest day was 3,006,140 gallons. The total water purchased in 2019 was 570,325,062 gallons. The average annual charge for water in 2019 was \$5.00 per 1000 gallons. The difference (6.9%) between the volume billed and the total volume purchased is water used firefighting, flushing of the water distribution system, errors in water meters and water lost to leaks.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, radiological and synthetic organic compounds. In addition, we test 2 samples for coliform bacteria monthly. 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 Health department at (518) 270-2626.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the tables on page 4, our system had no violations. We have learned through our monitoring and testing that some contaminants have been detected; however, these compounds were detected below New York State requirements. MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

INFORMATION ON 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. Systems that purchase fluoridated water may want to add: Fluoride is added to your water by City of Troy Water Department 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 properly controlled level. To ensure that the fluoride supplement in your water provides optimal dental protection, the City of Troy Water Department monitors fluoride levels on a daily basis to make sure fluoride is maintained at a target level of 1.0 mg/l. During 2019 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 results showed fluoride at levels that approach the 2.2 mg/l MCL for fluoride.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2019, our system was in compliance with applicable State drinking water operating and reporting requirements. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. We did not collect the required amount of lead and copper samples in the required time period of June 1, 2019 – September 30, 2019. We were issued a notice of violation for not completing this testing.

Unregulated Contaminant Monitoring 4 was conducted during 2018. This is a requirement of the 1996 Safe Drinking Water Act amendments. This monitoring provides a basis for future regulatory action to protect the public health. The number in parentheses refers to the number of measured for a total of 30 analytes. The breakdown of analytes is as follows: semi volatile organic chemicals (3), pesticides and pesticide manufacturing byproduct (9), metals (2), alcohols (3), cyanotoxin chemical contaminants (10), brominated haloacetic acid groups (3). There are no associated MCL's for these compounds at this time with the exception of Manganese. We have listed those compounds that were detected in the table of Detected Contaminants for East Greenbush.

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) or at <http://www.epa.gov/safewater>.

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 East Greenbush General Water District 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>

WHY SAVE WATER AND HOW TO AVOID WASTING IT?

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.

CAPITAL IMPROVEMENTS

There were no major modifications made to the water system in 2019.

CLOSING

Thank you for allowing us to continue to provide your family with quality drinking water this year. 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.

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 (37), asbestos. The inorganic contaminants tested for and non-detectable were, arsenic, cadmium, chromium mercury, nickel, silver, selenium, antimony, beryllium, thallium, zinc, nitrite, nitrate and cyanide.

Glossary of Terms

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.

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 LRA is calculated by taking the average of the four most recent samples collected at each individual site.

N/A-Not applicable

TABLE OF DETECTED CONTAMINANTS EAST GREENBUSH GENERAL WATER DISTRICT PWS ID# NY4100051							
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	7/18/19	1.4 ¹	NTU	N/A	TT=1.0 NTU	Soil runoff
			100%			TT= 95% samples < 0.3	
Inorganic Contaminants							
Barium	N	7/3/19	27.9	ppb	2000	2000	Naturally occurring
Chloride	N	7/3/19	25.8	ppm	N/A	250	Naturally occurring, road salt
Copper (EG General WD) Range	N	7/18/19-11/22/19	0.18 ² ND-0.23	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Color (avg) range	N	Daily	12.6 3.7-23.6	units	N/A	15	Naturally occurring
Fluoride (avg) range	N	Daily	0.77 0.17-1.11	ppm	N/A	2.2	Water additive which promotes strong teeth
Iron (avg) range	N	Weekdays	20 ND-50	ppb	N/A	300	Geology; Naturally occurring
Lead (EG General WD)	N	7/18/19-11/22/19	2 ³ ND-5	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Manganese (avg) range	N	Weekdays	1 ND-40	ppb	N/A	300	Geology; Naturally occurring
pH (avg) range	N	Daily	8.44 6.38-9.02	units		6.5-8.5	
Sodium ⁴	N	7/3/19	12.7	ppm	N/A	N/A	Naturally occurring
Sulfate	N	7/3/19	20.2	ppm	N/A	250	Naturally occurring
Turbidity	N	Daily	0.38 0.11-1.4	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	0.013 ND-0.19	ppm	0.8	0.8	Used in the treatment and disinfection of drinking water
Chlorate (avg) range	N	Monthly	0.23 0.17-0.33	ppm	N/A	N/A	Byproduct of chlorine dioxide used in disinfection
Chlorite (avg) range	N	Monthly	0.90 0.066-1.18	ppm	N/A	1.0	Byproduct of chlorine dioxide used in disinfection
Chlorine avg. range	N	Daily	0.83 0.53-1.06	ppm	MRDL 4	MRDL 4	Used in the treatment and disinfection of drinking water
Stage 2 Haloacetic Acids (HAA5)(Average) Range of values for HAA5 EG General WD	N	2/11/19 5/8/19 8/6/19 11/25/19	LRAA1 30.4 ⁵ (16.6-39.4) LRAA2 40.0 ⁵ (17.8-49.6) LRAA3 38.5 ⁵ (5.15-53.2) LRAA4 43.7 ⁵ (32.7-57.2)	ppb	N/A	60	Byproduct of drinking water chlorination
Stage 2 Haloacetic Acids (HAA5) Range of values for HAA5 site 5 Range of values for HAA5 site 6	N	5/8/19 8/6/19 11/25/19	8.4-41.6 8.5-36.6	ppb			
Stage 2 TTHM[Total Trihalomethanes](Average) Range of values for TTHM EG General WD	N	2/11/19 5/8/19 8/6/19 11/25/19	LRAA1 61.9 ⁵ (28.6-99.8) LRAA2	ppb	0	80	Byproduct of drinking water chlorination

			57.6 ⁵ (31.8-81.6) LRAA3 58.5 ⁵ (26.5-99.8) LRAA4 53.1 ⁵ (27.9-80.7)				
Stage 2 TTHM [Total Trihalomethanes] Range of values for TTHM5 site 5 Range of values for TTHM site 6		5/8/19 8/6/19 11/25/19	40.4-104 45.3-106	ppb			
Chlorine	N	daily	0.84 0.20-1.17		MRDLG 0	MRDL 4	Used in the treatment and disinfection of drinking water
Total Organic Carbon (TOC) samples from 2019							
TOC (filter effluent) range	N	Monthly samples	1.50-1.90	ppm		TT	Naturally present in the environment
Monthly Compliance Ratio avg			1.3		>= 1.0		
Unregulated Contaminant Monitoring Rule 4, Detected Contaminants from 1/10/18, 4/23/18, 7/23/18 & 10/22/18							
Manganese	N		1.12-4.55	ppb	N/A	300	Naturally occurring
HAA9 range (samples same date as Disinfection Byproducts)	N/A		15.2-46.7	ppb	N/A	N/A	By-product of drinking water chlorination
HAA6 range (samples same date as Disinfection Byproducts)	N/A		4.6-10.5	ppb	N/A	N/A	By-product of drinking water chlorination
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. The level presented represents the 90th percentile of the 30 samples collected. The action level for copper was not exceeded at any of the 30 sites tested. 3. The level presented represents the 90th percentile of the 30 samples collected. The action level for lead was not exceeded at any of the 30 sites tested. 4. Water containing more than 20 ppm should not be used for drinking by persons on severely restricted sodium diets. 5. The average is based on a Locational Running Annual Average (LRAA). The average shown is the highest LRAAs for 2019. The highest LRAA for the the TTHMs and the HAA5s was in the 3 rd quarter of 2019.							

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