

*Annual Drinking Water Quality Report for 2022*  
**Roxbury Water District**  
*Town of Roxbury*  
*P.O. Box 189*  
*Roxbury, New York 12474*  
*Public Water Supply ID NY#1200269*

## **INTRODUCTION**

To comply with State regulations, [Roxbury 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. 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. This report is an overview of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards. We are pleased to provide you with this information because informed customers are our best customers. 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 **the Roxbury Water District Operator, Chris Mattice, at (518) 366-7880**. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled Town board meetings. The meetings are held on the second Monday of each month at the Town Hall, starting at 7:00 p.m.

## **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 Departments and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water system serves 625 people through 252 service connections. Additionally, in August 2003, our system began providing water for the Grand Gorge Water District. Our water sources consist of two shallow gravel wells (1 tenth of a mile north of the village on State Route 30) and a series of upland springs (off of Johnson Road). Currently, Well #1 and Well #3 are the only water sources approved for regular use as a water supply. These wells are automatically controlled based on the water level in the storage tank. Water from these wells are treated with chlorine for disinfection and due to the corrosive nature of this water, corrosion control with zinc orthophosphate is also provided. A third well, Well #2, is available as an emergency source for the water system. After a detailed evaluation, this well was declared Ground Water Under the Direct Influence of Surface Water (GWUDI) by the New York State Department of Health. Sources considered GWUDI are susceptible to contamination by organisms that live in surface water. These organisms are resistant to chlorination used to disinfect water supplied to customers and therefore GWUDI sources must also be treated with filtration to remove these organisms. Currently we do not provide filtration treatment for Well #2. We maintain Well #2 in good working order for use during water system emergencies. The spring source was also determined to be GWUDI by the New York State

Department of Health after a detailed evaluation. The spring source is composed of one group of springs with a total of 2 individual springs. When the springs are used as a water source, they are piped together and treated by cartridge filtration, chlorination and zinc orthophosphate is added (for corrosion control) prior to discharge into the storage tank. We are currently evaluating the springs for larger scale future use.

The NYS DOH has completed a source water assessment for this system, based on available information. Possible and actual threats to the drinking water sources were evaluated. The state source water assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how easily contaminants can move through the subsurface to the drinking water sources.

The susceptibility rating is an estimate of the potential for contamination of the source water, it does not mean that the water delivered to consumers is, or will become contaminated. While nitrates (and other inorganic contaminants) were detected in our water, 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 from natural sources. The presence of contaminants does not necessarily indicate that the water poses a health risk. The nitrate levels in our sources are not considered high in comparison with other sources in this area. See section “Are there contaminants in our drinking water?” for a list of the contaminants that have been detected.

As mentioned before, our water is derived from two drilled wells and a spring source. The source water assessment has rated these wells as having a high susceptibility to microbials, nitrates, industrial solvents, and other industrial contaminants. These ratings are due primarily to the close proximity of permitted discharge facilities (industrial/commercial facilities that discharge wastewater into the environment and are regulated by the state and/or federal government), low intensity residential activities, septic systems, and a mine within the assessment area. In addition, the wells draw from an unconfined aquifer of unknown hydraulic conductivity. Based on the analysis of available information for the spring source, there are no water quality concerns found in the assessment area. No land cover water quality concerns, permitted discharges, or other discrete facilities were identified in the assessment area. While the source water assessment rates our sources as being susceptible to microbials, please note that our water is disinfected to ensure that the finished water delivered into your home meets New York State’s drinking water standards for microbial contamination. A copy of the assessment, including a map of the assessment area, can be obtained by contacting the NYS DOH at [CAEH.FC@health.ny.gov](mailto:CAEH.FC@health.ny.gov).

## **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](#), [lead and copper](#), [volatile organic compounds](#), [synthetic organic compounds](#) and [radiological pollutants](#). 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 Oneonta District Health Department at (607) 432-3911.

Table of Detected Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL or AL)	Likely Source of Contamination
<b>Inorganics –Nitrate</b>							
Nitrate	No No	5/19/22 5/19/22	Well #1 = 0.48 Springs = 0.83	mg/ mg/l	10	MCL=10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
<b>Inorganics</b>							
Copper	No	9/8/22	Dist. System 0.859 Range: 0.0038 – 1.02	mg/ mg/l	1.3	AL=1.3	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
Lead	No	9/8/22	Dist. System 1.9 Range: 0.826 – 1.9	ug/ ug/l	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits.
Barium	No	7/29/21 7/29/21	Well #1 = 0.036 Springs = .007	mg/ mg/l	2	MCL=2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chromium	No	1/28/21	Springs = 3	ug/l	10	10	Discharge from steel and pulp mills; erosion of natural deposits
Nickel	No	9/21/21	Well #1= 0.0006	mg/l	N/A	N/A	leaching from metals in contact with drinking-water, such as pipes and fittings, dissolution from nickel ore-bearing rocks.
Sodium	No	11/20/18	Well #1 = 19	mg/l	N/A	<b>See Health Effects (2)</b>	Naturally occurring; Road salt; Water softeners; Animal waste.
Sulfate	No	11/20/18	Well #1 = 4.7	mg/l	N/A	MCL=250	Naturally occurring.
Chloride	No	11/20/18	Well #1 = 22.7	mg/l	N/A	MCL=250	Naturally occurring or indicative of road salt contamination.
Zinc	No	11/20/18	Well #1 = 0.008	mg/l	N/A	MCL=5	Naturally occurring; Mining waste.
<b>Disinfection By-products</b>							
Total Trihalomethanes (TTHMs – chloroform, bromodichloromethane, dibromochloromethane, and bromoform)	No	3/23/22	Dist. System Highest Running Annual Average = 20.23 Range: 5.97 to 45.70	ug/ ug/l	N/A	MCL=80	By-product of drinking water chlorination needed to kill harmful organisms. TTHM's are formed when source water contains large amounts of organic matter.
chloromethane	No	1/28/21 1/28/21	Springs = 0.65 Well #1 = 0.65	ug/ ug/l	N/A	MCL=5	Used in organic chemistry; used as an extractant for greases, oils, and resins; as a solvent in the rubber industry; as a refrigerant, blowing agent and propellant in polystyrene foam production; as an anesthetic; as an intermediate in drug manufacturing; as a food additive, a fumigant and a fire extinguisher.
Haloacetic Acids (mono-di-, and trichloroacetic acid, and mono- and dibromoacetic acid)	No	3/23/22	Dist. System Highest Running Annual Average = 4.65 Range: ND to 7.1	ug/ ug/l	N/A	MCL=60	By-product of drinking water chlorination needed to kill harmful organisms.

**Notes:**

(1) The level presented represents the 90<sup>th</sup> percentile of the 20 sites tested. A percentile is a value on a scale of

100 that indicates the percent of a distribution that is equal to or below it. The 90<sup>th</sup> percentile is equal to or greater than 90% of the copper or lead values detected at your water system. In this case, 10 samples were collected at your water system and the 90<sup>th</sup> percentile values were the average of the three highest results (0.859 mg/l for copper (Range 0.0038-1.02) and 1.9 ug/l (Range 1-0.826) for lead). **The action levels neither lead nor copper were exceeded at any of the sampling locations.** Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure. Infants and young children are typically more vulnerable to lead in drinking water than the general population. 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. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and you should flush your tap for 30 seconds to 2 minutes before using your tap water. Additional information regarding lead in drinking water is available from the Safe Drinking Water Hotline (1-800-426-4791).

- (2) 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 of moderately restricted sodium diets.

### 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 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 (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.

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

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

**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).

### WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, for 2022 our system had no violations. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below the level allowed by the State.

### 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).

## **ADDITIONAL EDUCATION INFORMATION FOR LEAD**

- ◆ Lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Denver Water District 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 Chris Mattice at (607) 326-3141. 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?**

During 2022, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements.

## **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 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

## **CLOSING**

Thank you for allowing us to continue to provide your family with quality drinking water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements. 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