

Annual Drinking Water Quality Report for 2019
Town of Red Hook Water District No. 1
7340 South Broadway
Red Hook, NY 12571
(Public Water Supply ID# 1302788)

INTRODUCTION

To comply with State regulations, Town of Red Hook Water District No. 1, 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 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 any of the following, Water District Administration, Hank Van Parys, Chairman or Doreen Buono, Secretary at 845-758-4608, VRI Environmental Services, Inc., System Operator at 845-677-3839 or the Dutchess County Department of Health at 845-486-3404. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled water board meetings. The meetings are held the 3rd Wednesday of January, March, May, July, September and November at the Town Hall on 7340 South Broadway, Red Hook, NY.

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.

Our water source is a well field consisting of two gravel wells properly sealed and protected from contamination, which is located at the end of Willow Brook Lane. In 2018 our system did not experience any restriction of our water source. Our water is filtered by a two-train cartridge filtration system and then chlorinated with sodium hypochlorite prior to distribution. A 920,000-gallon storage tank is located off of Kelly Road. This tank provides storage and pressure for the system during off pumping times.

The NYS DOH has completed a source water assessment for this system, based on available information. Possible and actual threats to this water source were evaluated. The State source water assessments include 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 wells.

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 be contaminated. See section “Are there contaminants in our drinking water?” for a list of the contaminants that have been detected, if any. The source water assessments provide resource managers with additional information for protecting source waters in the future.

The source water assessment has rated our water source as having an elevated susceptibility to microbial, nitrates, industrial solvents and other industrial contaminants. These ratings are due primarily to the close proximity of the wells to permitted discharge facilities (industrial/commercial facilities that discharge wastewater into the environment and are regulated by the state and/or federal government) and the residential and agricultural land use and related activities in the assessment area. In addition, the wells draw from a gravel water bearing soil and overlying soils may not provide adequate protection from potential contamination due to flooding.

The county and state health departments will use this information to direct future source water protection activities. The source water assessment summary for your system is available by calling the Water Department office at 845-758-4608 and requesting a copy.

FACTS AND FIGURES

Our water system serves approximately 1,600 people through 487 service connections. The total water produced in 2019 was 31,849,100 gallons. The daily average of water treated and pumped into the distribution system was 87,200 gallons per day. Our highest single day was 260,100 gallons. The amount of water delivered to customers was 21,519,000 gallons. This leaves an unaccounted for total of 10,330,100 gallons which is 32.4% of the water produced. Due to water plant control issues the amount of unbilled for water was much higher than normal. Normal un-billed for water is attributed to water used to flush mains, clean streets and leakage. In 2019 water customers were charged \$42.74 per Quarter for the first 9,000 gallons. Each additional 1000 gallons were charged at a rate of \$5.20. The annual average water charge per user was \$220.00 per year.

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, 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 Dutchess County Health Department at 845-486-3404.

2017 Table of Detected Contaminants

Contaminant	Violation Yes/No	Date of Sample	Level Detected Max (Range)	Unit of Measure- ment	MCL Goal	Regulatory limit (MCL,TT or AL)	Likely Source of Contamination
Copper See note 1	No	9/27/18	0.089 (0.023- 0.099)	mg/L	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Nitrate	No	9/16/19	1.07	mg/L	10	10	Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits.
Barium	No	9/16/19	0.0805	mg/L	2	2	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Lead See note 2	No	9/27/18	0.002 (.001-.005)	mg/l	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Total Trihalomethanes (TTHMs)	No	9/17/18	5.48	ug/l	N/A	80	By-product of drinking water chlorination needed to kill harmful organisms TTHMs are formed when source water contains large amounts of organic matter.
Total Haloacetic Acids (HAA5s)	No	9/17/18	6.5	ug/l	N/A	60	By-product of drinking water disinfection needed to kill harmful organisms.
Manganese	No	6/13/17	10	ug/L	300	NA	The Food and Nutrition Board of the National Research Council determined an estimated safe and adequate daily intake of manganese to be 2,000 to 5,000 micrograms for adults. However, many people's diets lead them to consume even higher amounts of manganese, especially those who consume high amounts of vegetable or are vegetarian. The infant population is of greatest concern. It would be better if the drinking water were not used for infant formula since it already contains iron and manganese. Excess manganese produces a brownish color in laundered goods and impairs the taste of tea and coffee, and other beverages. Concentrations may cause dark brown or black stain on porcelain plumbing fixtures. As with iron, manganese may form a coating on distribution pipes..These may slough off, causing brown blotches on laundered clothing or black particles in the water.

Nickel	No	9/16/19	0.0023	mg/l	N/A	0.10	Naturally occurring; by product of some manufacturing process
Chromium	No	9/16/19	16.2	mg/l	0.10	0.10	Discharge from steel and pulp mills; Erosion of natural deposits.
Arsenic	No	9/16/19	0.0005	mg/l	N/A	0.01	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.

Notes:

1.The level presented represents the 90th percentile of the 10 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 90th percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, ten samples were collected at your water system and the 90th percentile value was 0.089 mg/l. The action level for copper was not exceeded at any of the sites tested.

2.The level presented represents the 90th percentile of the 10 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 90th percentile is equal to or greater than 90% of the lead values detected at your water system. In this case, ten samples were collected at your water system and the 90th percentile value was 0.002 mg/l. The action level for lead was not exceeded at any of the sites tested.

Turbidity is a measure of the cloudiness of the water. We test it because it is a good indicator of the effectiveness of our filtration system. Our highest single turbidity measurement (0.29 NTU) for the year occurred on November 4, 2019. State regulations require that turbidity must always be below 1.0 NTU. The regulations require that 95% of the turbidity samples collected have measurements below 0.3 NTU. All levels recorded were within the acceptable range allowed and did not constitute a treatment technique violation.

- **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 Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLG as possible.
- **Action Level (AL):** The concentration of a contaminant that, if exceeded, triggers treatment or other requirements which a water system must follow.
- **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.
- **Treatment Technique (TT):** A required process intended to reduce the level of a contaminant in drinking water.
- **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).
- **Nephelometric Turbidity Unit (NTU):** A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, 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.

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

Lead in your 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. Town of Red Hook Water District #1 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 (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2019, our system was 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).

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 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.

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.