

Annual Drinking Water Quality Report for 2021
Quaker Hill Estates Water System
Quaker Hill Drive, Hyde Park, NY 12538
(Public Water Supply ID# 1302797)

INTRODUCTION

To comply with State regulations, Quaker Hill Estates Water, 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. Of all tests for contaminants conducted in 2021, we found 2 of these at a level higher than the State allows. 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.

The Quaker Hills Water System was acquired by the Dutchess County Water and Wastewater Authority (DCWWA) on September 15, 2015. If you have any questions about this report or concerning your drinking water, please contact **Dutchess County Water & Wastewater Authority at (845) 486-3601**. We want you to be informed about your drinking water. If you want to learn more about the Dutchess County Water and Wastewater Authority, please visit our website at WWW.DCWWA.Org

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 system serves 350 people through 109 service connections. Our water source is two gravel wells which are located within our property boundary, adjacent to the water plant off Quaker Hill Drive. The water is disinfected with sodium hypochlorite prior to distribution.

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, inorganic compounds, nitrate, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, synthetic organic compounds, and radiologicals. 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 Department of Behavioral and Community Health at (845) 486-3404.

Table of Detected Contaminants

Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, AL, or TT)	Likely Source of Contamination
Copper (1)	No	8/20/2021	0.13 (0.1-0.15)	mg/L	1.3	1.3	Corrosion of household plumbing systems; Erosion of natural deposits; leaching from wood preservatives.
Lead (2)	No	8/20/2021	0.0021 (<0.001-0.0028)	mg/L	0	0.015	Corrosion of household plumbing systems; Erosion of natural deposits.
Nitrate	No	4/14/2021	3.0	mg/L	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Barium	No	4/14/21	0.0063	mg/L	2	2	Discharge of drilling wastes; Discharge of metal refineries; Erosion of natural deposits
Nickel	No	4/14/21	0.0019	mg/L	N/A	N/A	Naturally occurring, by product of some manufacturing waste
Chloride	No	4/14/21	95	mg/L	N/A	250	Naturally occurring or indicative of road salt contamination.

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Odor	No	4/14/21	1.0	Units	N/A	3	Organic or inorganic pollutants originating from municipal and industrial waste discharges; natural sources
Color	No	4/14/21	2.0	Units	15	N/A	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 matt
Sodium	No	4/14/21	55	mg/l	NA	(see Health Effects) (5)	Naturally occurring; Road salt; Water softeners; Animal waste
Total Coliform Bacteria Distribution System	No	7/16/21	Present	N/A	0	TT = 2 or more positive samples after April 1, 2016. MCL= 2 or more positive samples before April 1, 2016 (6)	Naturally present in the environment

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Contaminant	Violation Yes/No	Date of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, AL, or TT)	Likely Source of Contamination
E. Coli Well #1	Yes	7/19,9/28 &9/30/21	Present	N/A	0	Any positive sample (7)	Human and animal fecal waste.
Sulfate	No	4/14/21	18	mg/L	0.1	0.1	Naturally occurring
Perfluorooctanoic acid (PFOA) Well #1 (3)	No	2021 Quarterly	3.74 (2.64-5.42)	ng/l	10	N/A	Released into the environment from widespread use in commercial and industrial applications.
Perfluorooctane sulfonic acid (PFOS) Well #1 (4)	No	2021 Quarterly	5.05 (2.8-7.67)	ng/l	10	N/A	Released into the environment from widespread use in commercial and industrial applications.
Perfluorooctanoic acid (PFOA) Well #2 (3)	No	2021 Quarterly	6.91 (5.64-7.45)	ng/l	10	N/A	Released into the environment from widespread use in commercial and industrial applications.
Perfluorooctane sulfonic acid (PFOS) Well #2 (4)	No	2021 Quarterly	8.24 (7.39-9.18)	ng/l	10	N/A	Released into the environment from widespread use in commercial and industrial applications.

Disinfection Byproducts

Contaminant	Violation Yes/No	Date of Sample	Level Detected Average (Range)	Unit Measurement	MCLG MRDLG	Regulatory Limit MCL,TT,AL MRDL	Likely Source of Contamination
Chlorine Residual	No	Daily in 2021	1.01 (.25-2.16)	mg/l	N/A	4	Water additive used to control microbes
Haloacetic Acids (HAA5)	No	8/13/2020	2.0	ug/l	N/A	60	By-product of drinking water chlorination needed to kill harmful organisms
Total Trihalomethanes (TTHMs)	No	8/13/2020	21	ug/l	N/A	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

Footnotes:

(1) The level presented represents the 90th percentile of the 5 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, 5 samples were collected at your water system and the 90th percentile value is the reported value. The action level for copper was not exceeded at any of the sites tested.

(2) The level presented represents the 90th percentile of the 5 samples collected. The action level for lead was not exceeded at any of the sites tested.

(3) PFOA caused a range of health effects when studied in animals at high exposure levels. The most consistent findings were effects on the liver and immune system and impaired fetal growth and development. Studies of high-level exposures to PFOA in people provide evidence that some of the health effects seen in animals may also occur in humans. The United States Environmental Protection Agency considers PFOA as having suggestive evidence for causing cancer based on studies of lifetime exposure to high levels of PFOA in animals

(4) PFOS caused a range of health effects when studied in animals at high exposure levels. The most consistent findings were effects on the liver and immune system and impaired fetal growth and development. Studies of high-level exposures to PFOS in people provide evidence that some of the health effects seen in animals may also occur in humans. The United States Environmental Protection Agency considers PFOS as having suggestive evidence for causing cancer based on studies of lifetime exposure to high levels of PFOS in animals.

(5) 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.

(6) Before April 1, 2016, a violation occurs at systems collecting 40 or more samples per month when more than 5% of the total coliform samples are positive. A violation occurs at systems collecting less than 40 samples per month when two or more samples are total coliform positive. After April 1, 2016, a Level 1 assessment is triggered if 2 or more routine/repeat samples are total coliform positive in the same month

(7) A violation occurs when a total coliform positive sample is positive for E. Coli and a repeat total coliform sample is positive 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:

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).

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

Maximum Contaminant Level (MCL) - The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's 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. MCLG's 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

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

Picocuries per liter (pCi/L) – A measure of the radioactivity in water.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system had a violation. 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.

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 higher than at other homes in the community as a result of materials used in your home's plumbing. Quaker Hill Estates Water 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 the 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 2021, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements except for E.Coli and Total Coliform Bacteria. This system has been operating with a violation since 2011 for structural deficiencies related to the water treatment building.

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 up 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 any questions.