

***Annual Drinking Water Quality Report for 2023***  
***D.C.W.W.A. Quaker Hills Water System***  
***Hyde Park, NY 12538***  
***(Public Water Supply ID# 1302797 )***

## **INTRODUCTION**

To comply with State regulations, DCWWA-Quaker Water System, 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. PFOS, PFOA were detected in Quaker Hills' water at levels that exceed the State Maximum Contaminant Levels. Affected resident were notified immediately after the sample results were received. 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 Hyde Park Water Plant at 845-229-2524 and ask for Alain Petit, Jr.. 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](http://WWW.DCWWA.Org). You can also reach us at (845)486-3601.

## **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.

The Quaker Hills Water System is fed through groundwater drawn from two drilled wells, both of which are in active service. Disinfection with Sodium Hypochlorite is added at the distribution Entry Point to eliminate pathogens. In the process of turning raw water in to a finished product, the water quality is consistently monitored every step of the way. Treatment is optimized based on these results, and other process control sampling results made along the treatment path. The finished water is then pumped out into the distribution system for customer use. The distribution system is monitored for coliform bacteria, chlorine residuals, and other regulated parameters. Water pumps into a hydro-pneumatic tank located at the Entry Point to provide storage, and pressure for the distribution system. During 2023, our system did not experience any restriction of our water source.

## FACTS AND FIGURES

Our water system serves approximately 350 persons through 109 service connections. The total water produced in 2023 was 16,065,300 gallons. The daily average of water treated and pumped into the distribution system was 44,015 gallons per day. Our highest single day was 85,900 gallons in February of 2023. For information regarding the amount of water delivered to customers please call our billing department at 845-486-3601. In 2023, there were 3 water main breaks, and 0 service line leaks repaired by the Authority and/ or customers. In 2023, water customers were charged a flat rate of \$277.00 per four month billing period.

## 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, nitrite, 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. If you wish to have a copy of all test results for all non-detected contaminants please contact the D.C.W.W.A., and we will be happy to provide them to you. Please note that water from the Hyde Park Plant is not fluoridated. 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 at 800-426-4791, or the Dutchess County Department of Behavioral and Community Health at 845-486-3404.

### A Summary of the Regulated Contaminants Detected in Our Treated Water

Physical Characteristics							
Contaminants	Violation Yes/No	Date Of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Odor	No	8/23/23	( Max ) 2.3	Units	N/A	3	Organic or inorganic pollutants originating from municipal, and industrial waste discharges; natural sources
pH	No	8/23/23	7.1	SU	N/A	N/A	Naturally occurring

## Inorganic Contaminants

Contaminants	Violation Yes/No	Date Of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Barium – Entry Point	No	4/14/21	( Max ) 0.006	mg/L	2	2	Erosion of natural deposits; Discharge of drilling wastes; Discharge of metal refineries
Barium – Well # 1	No	12/13/22	( Max ) 0.011	mg/L	2	2	Erosion of natural deposits; Discharge of drilling wastes; Discharge of metal refineries
Chloride – Entry Point	No	4/14/21	( Max ) 95	mg/L	N/A	250	Naturally occurring or indicative of road salt contamination
Chloride – Well # 1	No	12/13/22	( Max ) 72	mg/L	N/A	250	Naturally occurring or indicative of road salt contamination
Copper ( 1 )	No	8/19/21 - 8/20/21	0.130 ( Range ) 0.100 - 0.150	mg/L	N/A	AL = 1.3	Erosion of natural deposits; Corrosion of household plumbing systems; Leaching from wood preservatives
Lead ( 2 )	No	8/19/21 - 8/20/21	2.1 ( Range ) 1.0 – 2.8	ug/L	0	AL = 15	Erosion of natural deposits; Corrosion of household plumbing systems
Manganese – Well # 1	No	12/13/22	( Max ) 15	ug/L	N/A	300	Naturally occurring; indicative of landfill contamination
Nickel – Entry Point	No	4/14/21	( Max ) 0.002	ug/L	N/A	100	Naturally occurring; By-product of some manufacturing processes
Nickel – Well # 1	No	12/13/22	( Max ) 0.024	ug/L	N/A	100	Naturally occurring; By-product of some manufacturing processes
Nitrate – Entry Point	No	6/15/23	( Max ) 1.89	mg/L	10	10	Erosion of natural deposits; Run off from fertilizer use; Leaching from septic tanks; Sewage

<b>Inorganic Contaminants ( Continued )</b>							
<b>Contaminants</b>	<b>Violation Yes/No</b>	<b>Date Of Sample</b>	<b>Level Detected (Avg/Max) (Range)</b>	<b>Unit Measure-ment</b>	<b>MCLG</b>	<b>Regulatory Limit (MCL, TT or AL)</b>	<b>Likely Source of Contamination</b>
Sodium ( 3 )	No	8/23/23	( Max ) 44.5	mg/L	N/A	*No MCL. See foot note 5 for health effects	Naturally occurring; road salt; Water softeners; Animal waste
Sulfate	No	8/23/23	( Max ) 31.2	mg/L	N/A	250	Naturally occurring
Zinc	No	8/23/23	( Max ) 0.0482	mg/L	N/A	5	Naturally occurring; Mining Waste

<b>Synthetic Organic Contaminants</b>							
<b>Contaminants</b>	<b>Violation Yes/No</b>	<b>Date Of Sample</b>	<b>Level Detected (Avg/Max) ( Range )</b>	<b>Unit Measure-ment</b>	<b>MCLG</b>	<b>Regulatory Limit (MCL, TT or AL)</b>	<b>Likely Source of Contamination</b>
Perfluorooctanoic Acid ( PFOS ) – Well # 1 ( 4 )	No	Qtrly	3.72 ( Range ) 2.53 – 4.90	ng/L	N/A	10	Released in to the environment from widespread use in commercial and industrial applications
Perfluorooctanoic Acid ( PFOS ) – Well # 2	Yes	Qtrly	11.12 ( Range ) 8.64 – 13.6	ng/L	N/A	10	Released in to the environment from widespread use in commercial and industrial applications
Perfluorooctanoic Acid ( PFOA ) – Well # 1 ( 4 )	No	Qtrly	4.36 ( Range ) 3.27 – 5.44	ng/L	N/A	10	Released in to the environment from widespread use in commercial and industrial applications
Perfluorooctanoic Acid ( PFOA ) – Well # 2	Yes	Qtrly	11.05 ( Range ) 8.59 – 13.5	ng/L	N/A	10	Released in to the environment from widespread use in commercial and industrial applications

### Synthetic Organic Contaminants ( Cont. )

Contaminants	Violation Yes/No	Date Of Sample	Level Detected (Avg/Max) ( Range )	Unit Measure-ment	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Perfluoro-butanesulfonic Acid ( PFBS )- Well # 1	No	Qtrly	2.45 ( Range ) 2.00 – 3.02	ng/L	N/A	50,000	Released in to the environment from widespread use in commercial and industrial applications
Perfluoro-butanesulfonic Acid ( PFBS )- Well # 2	No	Qtrly	4.07 ( Range ) 3.66- 4.47	ng/L	N/A	50,000	Released in to the environment from widespread use in commercial and industrial applications
Perfluorohexanoic Acid ( PFHxA ) – Well # 1	No	Qtrly	2.18 ( Range ) 1.58 – 2.78	ng/L	N/A	50,000	Released in to the environment from widespread use in commercial and industrial applications
Perfluorohexanoic Acid ( PFHxA ) – Well # 2	No	Qtrly	5.54 ( Range ) 4.94 – 6.14	ng/L	N/A	50,000	Released in to the environment from widespread use in commercial and industrial applications
Perfluorohexanoic Acid ( PFHxS ) – Well # 1	No	Qtrly	1.13 ( Range ) 0.985 – 1.27	ng/L	N/A	50,000	Released in to the environment from widespread use in commercial and industrial applications
Perfluorohexanoic Acid ( PFHxS ) – Well # 2	No	Qtrly	1.60 ( Range ) 1.55 – 1.65	ng/L	N/A	50,000	Released in to the environment from widespread use in commercial and industrial applications
Perfluorohexanoic Acid ( PFHpA ) – Well # 1	No	Qtrly	1.21 ( Range ) 0.844 - 1.58	ng/L	N/A	50,000	Released in to the environment from widespread use in commercial and industrial applications
Perfluorohexanoic Acid ( PFHpA ) – Well # 2	No	Qtrly	2.47 ( Range ) 2.30 – 2.63	ng/L	N/A	50,000	Released in to the environment from widespread use in commercial and industrial applications

### Synthetic Organic Contaminants ( Cont. )

Contaminants	Violation Yes/No	Date of Sample	Level Detected (Avg./Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Perfluorononanoic Acid ( PFNA ) – Well # 2	No	Qrtrly	0.52 ( Range ) ND – 1.04	ng/L	N/A	50,000	Released in to the environment from widespread use in commercial and industrial applications

### Microbiological Contaminants

Contaminants	Violation Yes/No	Date of Sample	Level Detected (Avg./Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Total Coliform ( 5 )	Yes	9/06/23, 9/08/23	2 Positive Samples	N/A	N/A	TT = 2 or more positive	Naturally present in the environment

### Disinfection Byproducts

Contaminants	Violation Yes/No	Date Of Sample	Level Detected (Avg/Max) (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT or AL)	Likely Source of Contamination
Haloacetic Acids ( HAA5 ) ( 6 )	No	8/23/23	2.5	ug/L	N/A	60	By-product of drinking water disinfection needed to kill harmful organisms
Total Trihalomethanes ( TTHMs ) ( 6 )	No	8/23/23	15.0	ug/L	N/A	80	By-product of drinking water disinfection needed to kill harmful organisms TTHMs are formed when source water contains large amounts of organic matter

<b>Disinfection</b>							
<b>Contaminant</b>	<b>Violation Yes/No</b>	<b>Date of Sample</b>	<b>Level Detected (Avg/Max) (Range)</b>	<b>Unit Measurement</b>	<b>MCLG MRDLG</b>	<b>Regulatory Limit MCL,TT,AL MRDL</b>	<b>Likely Source of Contamination</b>
Entry Point Chlorine Residual ( 7 ) & ( 8 )	No	Cont.	( Avg. ) 1.22 ( Range ) 0.03 – 2.40	mg/L	N/A	4.0	Water additive used to control microbes

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 5 different sites from your water system. The 90<sup>th</sup> percentile value was 0.130 mg/L, which is below the Action Level of 1.3 mg/L.

2 – The level presented represents the 90th percentile of the 5 sites that were tested. A percentile is a value on a scale of 100 that indicates the percent distribution that is equal to, or below it. The 90<sup>th</sup> percentile is equal to, or greater than, 90% of the lead values detected at your water system. In this case, 5 samples were collected from 5 different sites at your water system. The 90<sup>th</sup> percentile was 2.1 ug/L, which is below the Action Level of 15 ug/L.

3—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.

4 – PFOS, 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 PFOS, 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 PFOS, PFOA as having suggestive evidence for causing cancer based on studies of lifetime exposure to high levels of PFOS, PFOA in animals.

5 – Since we had 2 total coliform-positive routine/ repeat samples in the same month we triggered a Level 1 assessment. This assessment is to assess the coliform contamination and take corrective action against sanitary defects in the water system. On 9/06/23 a routine coliform sample came back positive. A repeat sample taken on 9/08/23 from the same address came back positive. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful waterborne pathogens may be present or that a potential pathway exists through which contamination may enter drinking water treatment or distribution. When this occurs, we are required to conduct assessments to identify problems and to correct any problems that were found during this assessment. As part of the assessment 2 samples were collected from 2 other addresses on 9/08/23. Both of these samples were found to be absent of coliform bacteria. A repeat sample was taken from a different fixture on 9/12/23 at the address that originally had the positive coliform samples. This sample came back absent of coliform bacteria, and indicated that the issue with a fixture at this particular address, and not system wide. It should be noted that E. Coli, associated with human and animal fecal waste, was not detected in any of the samples collected.

6 – This level represents the highest running annual average, and range, calculated from data collected.

7 – The value reported represents the Maximum Residual Disinfectant Level ( MRDL ), which is a level of disinfectant added for water treatment that may not be exceeded at the consumers tap without an unacceptable possibility of adverse health effects. MRDLs are currently not regulated, but in the future they will be enforceable in the same manner as MCLs.

8 – Chlorine residuals are monitored continuously on water treatment plant effluent.

**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.

**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).

**Nanograms per liter ( ng/l):**Corresponds to one part of liquid in one trillion parts of liquid (parts per trillion – ppt).

**WHAT DOES THIS INFORMATION MEAN?**

As you can see by the table, PFOS, PFOA concentrations in two of our source wells exceeded regulatory limits. An engineering study is under way to determine how to best mitigate the issue of PFOS, PFOA in the source wells.

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 D.C.W.W.A. 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 2023, 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 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.
- ◆ 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**

In closing, the Board members and staff of the Dutchess County Water & Wastewater Authority wish to 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, and our way of life. Please call our office if you have questions.

