

*Annual Drinking Water Quality Report for 2022
Valley Dale Water Service Area
76 Forest Valley Road
Pleasant Valley, NY 12569
Public Water Supply ID#1302813*

INTRODUCTION

To comply with State regulations, Valley Dale 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. 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 **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 & 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 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 about 500 residents through 164 service connections. Your water supply is obtained from 8 deep wells located in the well field adjacent to the pump house on Forest Valley Road. The wells are between 250' and 605' deep. All wells are properly sealed to help protect from surface contamination. Treatment of the water drawn from these wells consists of cartridge filtration for any possible surface water contamination removal followed by disinfection with chlorine to destroy microorganisms prior to distribution. All wells have submersible pumps, which pump to storage tanks. From the storage tanks two booster pumps pump from the storage tanks to a pneumatic tank, which provides pressure to the system during off pumping times. Water is distributed thru the system via 8" water mains. Hydrants for main flushing use are provided at key points throughout the system. The system is flushed in spring and fall.

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 fractured bedrock and overlying soils may not provide adequate protection from potential contamination.

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 DCWWA office at 845-486-3601 and requesting a copy.

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, total haloacetic acids, PFOA, PFOS, 1,4-Dioxane, and radiological. 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.

**Summary of the Regulated Contaminants
Detected in Our Treated Water**

Inorganic Contaminants							
Contaminant	Violation Yes/No	Date of Sample	Level Detected Avg (Range)	Unit Measurement	MCLG	Regulatory Limit (MCL, TT, AL)	Likely Source of Contamination
Nickel	No	4/28/22	1.1	ug/l	N/A	N/A	Erosion of natural deposits.
Barium	No	4/28/22	0.049	mg/l	2	2	Discharge of drilling wastes; Discharge of metal refineries; Erosion of natural deposits.
Chloride	No	4/28/22	88	mg/l	N/A	250	Naturally occurring or indicative of road salt contamination.
Sodium	No	4/28/22	43	mg/l	N/A	See Health Effects (3)	Naturally occurring; Road salt; Water softeners; Animal waste.
Nitrate	No	3/1/22	1.9	mg/l	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Copper (1)	No	8/20/21	0.12 (0.05 - 0.13)	mg/l	1.3	AL = 1.3	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.
Lead (2)	No	8/20/21	5.2 (<1.0-6.0)	ug/l	0	AL = 15	Corrosion of household plumbing systems; Erosion of natural deposits.

Synthetic Organic Contaminants including Pesticides and Herbicides

Perfluorooctanoic acid (PFOA) Well #5 (4)	No	7/13/22	1.51	ng/l	10	N/A	Released into the environment from widespread use in commercial and industrial applications.
Perfluorooctane sulfonic acid (PFOS) Well #5 (5)	No	7/13/22	0.981	ng/l	10	N/A	Released into the environment from widespread use in commercial and industrial applications
Perfluorooctanoic acid (PFOA) Well #6 (4)	No	7/13/22	2.70	ng/l	10	N/A	Released into the environment from widespread use in commercial and industrial applications.
Perfluorooctane sulfonic acid (PFOS) Well #6 (5)	No	7/13/22	1.47	ng/l	10	N/A	Released into the environment from widespread use in commercial and industrial applications
Perfluorooctanoic acid (PFOA) Well #7 (4)	No	7/13/22	ND	ng/l	10	N/A	Released into the environment from widespread use in commercial and industrial applications.
Perfluorooctane sulfonic acid (PFOS) Well #7 (5)	No	7/13/22	ND	ng/l	10	N/A	Released into the environment from widespread use in commercial and industrial applications

Perfluorooctanoic acid (PFOA) Well #1 (4)	No	7/13/22	1.47	ng/l	10	N/A	Released into the environment from widespread use in commercial and industrial applications.
Perfluorooctane sulfonic acid (PFOS) Well #1 (5)	No	7/13/22	0.754	ng/l	10	N/A	Released into the environment from widespread use in commercial and industrial applications
Perfluorooctanoic acid (PFOA) Well #2 (4)	No	7/13/22	0.821	ng/l	10	N/A	Released into the environment from widespread use in commercial and industrial applications.
Perfluorooctane sulfonic acid (PFOS) Well #2 (5)	No	7/13/22	ND	ng/l	10	N/A	Released into the environment from widespread use in commercial and industrial applications
Perfluorooctanoic acid (PFOA) Well #4 (4)	No	7/13/22	1.95	ng/l	10	N/A	Released into the environment from widespread use in commercial and industrial applications.
Perfluorooctane sulfonic acid (PFOS) Well #4 (5)	No	7/13/22	0.976	ng/l	10	N/A	Released into the environment from widespread use in commercial and industrial applications

Disinfection By-products

Total Haloacetic Acids (HAA5)	No	8/30/22	5.3	ug/l	NA	60	By-product of drinking water disinfection needed to kill harmful organisms.
Total Trihalomethanes (TTHMs)	No	8/30/22	9.6	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.
Chlorine Residual	No	Daily	1.28 (0.33 – 3.0)	mg/l	N/A	4.0	Water additive used to control microbes.

Radioactive 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
Combined Radium 226 and 228	No	4/28/22	0.925	pCi/l	0	5	Erosion of natural deposits
Gross Alpha Activity (Including Radium 226 but excluding Radon & Uranium)	No	4/28/22	ND	pCi/l	0	15	Erosion of natural deposits
Gross Beta (6)	No	4/28/22	1.12	pCi/l	0	50	Erosion of natural deposits
Combined Uranium	No	4/28/22	0.653	ug/l	0	30	Erosion of natural deposits

In 2022, we were required to collect and analyze drinking water samples for the following unregulated contaminants:

Unregulated Perfluoroalkyl Substances

Contaminant	Violation (Yes/No)	Date of Sample	Level Detected	Unit of Measure	MCLG or Health Advisory Level
PERFLUOROBUTANESULFONIC ACID (PFBS) Well 1	No	7/13/2022	0.934	ng/L	NA
PERFLUOROBUTANESULFONIC ACID (PFBS) Well 2	No	7/13/2022	0.671	ng/L	NA
PERFLUOROBUTANESULFONIC ACID (PFBS) Well 4	No	7/13/2022	1.17	ng/L	NA
PERFLUOROBUTANESULFONIC ACID (PFBS) Well 5	No	7/13/2022	1.43	ng/L	NA
PERFLUOROBUTANESULFONIC ACID (PFBS) Well 6	No	7/13/2022	2.42	ng/L	NA
PERFLUOROHEXANOIC ACID (PFHXA) Well 6	No	7/13/2022	0.676	ng/L	NA
PERFLUOROHEPTANOIC ACID (PFHPA) Well 6	No	7/13/2022	0.715	ng/L	NA

Notes:

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 sites tested. The action level for lead was not exceeded at any of the sites tested.
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. 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.
5. 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.
6. The State considers 50 pCi/L to be the level of concern for beta particles.

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 to one trillion parts of liquid (parts per trillion - ppt).

Picograms per liter (pg/l): Corresponds to one part per of liquid to one quadrillion parts of liquid (parts per quadrillion – ppq).

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

Millirems per year (mrem/yr): A measure of radiation absorbed by the body.

Million Fibers per Liter (MFL): A measure of the presence of asbestos fibers that are longer than 10 micrometers.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system had no violations in 2022. 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 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. Valley Dale 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 Valley Dale (845) 486-3601. 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?

Our system was in compliance with all other applicable State drinking water operating, monitoring and reporting requirements in 2022.

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.

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 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. In 2009 we did a preliminary engineering report on the condition and need for replacement of the buried storage tanks and the pressure tank. These tanks are reaching the end of their expected life and we will be further planning on how best to replace these tanks in terms of cost and how best to meet the needs of the Valley Dale Water System consumers. 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.