VWS Supply Data

Valley Water Systems is a regulated, privately owned water utility with 85 miles of water main & serving over 6,800 customers in Plainville, Southington, and Farmington, Connecticut. The sources of your drinking water are from gravel packed wells in the Woodford and Johnson Avenue aquifers. Adjacent to Hamlin Pond and the headwaters of the Quinnipiac River, Valley's Woodford Avenue well field has two production wells that pump up to 2.17 million gallons of water per day. The Johnson Avenue source, located near the northern boundary of Plainville, can produce up to 1.5 million gallons daily through two wells. These two groundwater sources meet all of Valley's normal needs including each day's average and peak demands. Our storage tanks located at Maria Road & Reliance Road can both hold 1 million gallons each. In the event of an unforeseen supply deficit, the company can activate the New Britain surface water connection located on Trumbull Avenue. Valley has not had to rely on this source since 1993. The water disinfection techniques Valley uses are sodium hypochlorite, hydrofluorosilicic acid, & polyphosphate.

Keeping in Touch

Valley Water Systems participates in a scheduled Water Advisory Committee meeting in which the public is welcome to attend and discuss items of their related interest. These meetings are usually held at the Company office. Dates and times of meetings may be obtained by calling the Town Manager's office at (860) 793-0221. If you cannot attend a particular meeting, do not hesitate to call the Valley Office at its 24-hour number for more information: (860) 747-8000. We would love your feedback & encourage our customers to fill out a customer survey located at our office or online at: http://valleywatersystems.com/SatisfactionSurvey.php

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Valley Water Systems
INCORPORATED

Valley Water News

ANNUAL QUALITY REPORT

July 2021

Valley Water Systems, Inc. • Plainville, CT 06062 • www.valleywatersystems.com

Source Water Protection & Assessment

Valley Water Systems, Inc. takes great pride in having high quality drinking water. To ensure that our well sources are protected, Valley Water Systems inspects well fields daily while performing tests to ensure the highest water quality.

A source water assessment of Valley Water Systems was completed by the Department of Public Health, Drinking Water Section. An updated assessment report can be picked up at our office located at 37 Northwest Drive Plainville CT 06062.

The assessment found that this public drinking water source has a low susceptibility to potential sources of contamination.

Fun Facts About Water

- Water regulates the Earth's temperature. It also regulates the temperature of the human body, carries nutrients and oxygen to cells, cushions joints, protects organs and tissues and removes wastes.
- The first water pipes in the U.S. were made from hollowed logs.
- The first drinking water supply that supplied an entire city was built in Paisley, Scotland in 1804 by John Gibb, in order to supply his bleachery and the entire city with water.
- It takes about 660 gallons of water to make a hamburger from the beef, toppings, to the bun. The average American eats about three hamburgers a week.
- It takes 2.6 gallons of water to make a sheet of paper and 6.3 gallons of water to make 17 oz of plastic.

Water Conservation

You can play a role in conserving water and save money in the process by being conscious of the amount of water your household is using. Here are a few tips:

- Check for toilet tank leaks by adding food coloring to the tank. If the toilet is leaking, color will appear within 30 minutes in the bowl. A leaky toilet can waste 200 gallons a day.
- Use your water meter to detect leaks. Simply turn off all taps and water using appliances. Then check the meter after 15 minutes. If the dials have moved, you have a leak.
- Water lawns during the early morning hours when temperatures This reduces losses from evaporation.
- Avoid watering the lawn on windy days. Excessive evaporation can happen wasting up to 300 gallons in a single watering.
- Run your dishwasher and laundry washer only when they are full
- Add food waste to a compost pile instead of using a garbage disposal.

Valley Water Systems

2021 Plant Investment Program

A safe reliable water supply is central to the economic success of our communities. Water is critical for the day-to-day operations of existing business and to the viability of new commercial enterprises and residential neighborhoods. Therefore, we annually target hundreds of thousands of dollars to continually improve our system.

Due to COVID-19 economic impacts, Valley Water System's capital investment program was scaled back in 2020, and investments were limited to minor items and the design of a new treatment plan. Valley Water System initiated the design of the proposed Woodford Ave Water Softening Plant. Valley Water System's consultant provided surveying, permitting and design services for the project. Local approvals were obtained and the Connecticut Department of Public Heath issued its approval for the plant construction in February of 2021.

Water Footprint

You may have some understanding about your carbon footprint, but how much do you know about your water footprint? Your water footprint is the amount of water you use in and around your home, office, or school throughout the day. It includes what you use directly (from a faucet) and indirectly (water used to produce the products you consume, buy, etc.) For example, 264 gallons of water is required to produce 1 quart of milk and 674 gallons to produce 6 oz of steak. For 100 gram of chocolate it takes about 449 gallons of water.

According to the U.S. EPA, the average American uses on average 300 gallons of water daily. In fact, in the developed world, one flush of a toilet used as much water as the average person in the developing world allocates for an entire day's cooking, cleaning, washing, and drinking. The annual per capita water footprint for an American is about 2842 cubic feet, 7786 liters of water per person per day. With water use increasing six-folds in the past century, global demands for fresh water are rapidly outstripping what the planet can replenish.

To check out your water footprint, see how the water footprint of other nations compare, or get more information check out the following website www.waterfootprint.org, www.epa.gov.watersense or www.gracelinks.org

About Ground Water

Groundwater is used for drinking water by more than 50 percent of the people in the United States. The saturated zone is the area where water fills the aquifer. Aquifers are normally made up of gravel, sand, sandstone, and limestone. Water is able to move through these resources because they have large linked spaces that make them absorbent. Water in aquifers is brought to the surface in nature through a spring or can be discharged into lakes and streams. It can as well be extracted through a well drilled into the aquifer. A well is a pipe in the ground that fills with groundwater and a pump is used to bring the water to the surface.

What Substances Can Occur in Water?

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 activity.

Substances that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes, and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Explanation of Contaminants and Health Risks

Drinking water, including bottled water, may reasonably be 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 Environmental Protection Agency's Safe Drinking Water Hotline at 800-426-4791.

Some people may be more vulnerable to contaminants 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 about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 800-426-4791.

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor. The major source of copper in drinking water is from corrosion of household plumbing systems, erosion of natural deposits and leaching from wood preservatives.

Valley Water System's average sodium level in 2020 was 63.7 mg/L. The presence is above the recommended state level, we wish to bring this to your attention, if you have dietary precautions. If you are on a sodium restricted diet, you should contact your physician.

The major source of lead in drinking water is from the corrosion of household plumbing systems and erosion of natural deposits. 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 water containing lead in excess of the action level over many years could develop kidney problems or high blood pressure.

If present, elevated levels of 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 Water Systems 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 State Drinking Water Hotline or at www.epa.gov/safewater/lead.

Unregulated contaminants are those that don't yet have a drinking water standard by the United States EPA. The purpose of monitoring these contaminants is to help the United States EPA decide whether the contaminants should have a standard.

"Once again, Valley's water has met or exceeded quality standards in every respect"

Water Quality Analysis

Valley's Water is Tested by a Certified Independent Laboratory

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Range Low	Range High	Sample Date	Violation	Typical Source
Disinfectants & Disinfection By-Products (There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Haloacetic Acids (HAA5) (ppb)	NA	60	2.23	NA	NA	2020	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	10.0	NA	NA	2020	No	By-product of drinking water disinfection
Inorganic Contaminants								
Copper (ppm)	NA	1.3	.728	NA	NA	2019	No	Corrosion of household plumbing systems; Erosion of natural deposits
Fluoride (ppm)	4	4	.7	NA	NA	2020	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Lead (ppm)	NA	15	<.002	NA	NA	2019	No	Corrosion of household plumbing systems; Erosion of natural deposits
Nitrate (ppm)	10	10	1.72	NA	NA	2020	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Microbiological Contaminants								
Turbidity (NTU)	NA	TT	.15	NA	NA	2020	No	Soil runoff
Radioactive Contaminants								
Alpha emitters (pCi/L)	0	15	<3.0	NA	NA	2019	No	Erosion of natural deposits
Volatile Organic Contaminants								
1,1,1-Trichloroethane (ppb)	200	200	<.50	NA	NA	2020	No	Discharge from metal degreasing sites and other factories

Unregulated Contaminant (UCMR4)	Reported Level	Range Low	Range High	Sample Year
HAA5 (ppb)	1.62	1.1	2.2	2020
HAA6 Br (ppb)	2.83	1.6	3.9	2020
HAA9 (ppb)	3.25	1.8	4.6	2020

Unregulated Contaminant (UCMR3)	Reported Level	Range Low	Range High	Sample Year
1,4-dioxane (ppb)	.13	<.07	.26	2016
chromium (total chromium) (ppb)	.52	.35	.66	2016
chromium-6 (hexavalent chromium) (ppb)	.51	.33	.68	2016
strontium (ppb)	301	114	500	2016
vanadium (ppb)	1.75	1.1	2.4	2016

Term	Definition
NTU	NTU: Nephelometric Turbidity Units. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.

Important Drinking Water Definitions	
Term	**Definition**
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
MCLG	MCLG: Maximum Contaminant Level Goal: 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.
MCL	MCL: Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances & Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level goal. 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 contaminants.
MRDL	MRDL: Maximum residual disinfectant level. 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.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level
UCMR	As part of an on-going evaluation program the EPA has required us to monitor some additional contaminants/chemicals. Information collected through the monitoring of these contaminants/chemicals will help to ensure that future decisions on drinking water standards are based on sound science.