

# Water District 19 Water Quality Report 2025



Water District 19 office

*This Report is designed to give you, our customer, an overview of Water District 19's operation and water quality test results for 2025. You will learn where your water comes from, where it goes and the steps we take to provide water that is reliable and safe to drink.*

*At Water District 19 we provide our customers with drinking water that meets or exceeds the stringent standards set by the state and federal governments. We monitor the water quality of our system 24 hours a day, 7 days a week. From the sources, tanks and water treatment plant to the pipes that carry the water to your home - we work to ensure the highest quality water is available. Daily laboratory sampling is performed at our Water Treatment Plant and Well sites along with daily field analyses. Monthly samples are collected and sent to a state certified laboratory to test for coliform bacteria/e-coli. Other regulated contaminants are sampled on a schedule dictated by the Washington State Department of Health. Our water quality consistently meets US Environmental Protection Agency (EPA) standards. Results of the most recent analyses are on pages 2 and 3 of this report.*

*Over time, our understanding of water quality and treatment evolves as new technologies and information becomes available. Emerging concerns such as manganese, Boil Order Advisories and PFAS are discussed on page 4.*

*All water quality information is available to the public during office hours (M - F, 8 a.m. to 4 p.m.). Additionally, the Washington State Department of Health, Office of Drinking Water maintains a comprehensive database of every water system in the state, called Sentry Internet, which can be accessed at: <https://fortress.wa.gov/doh/eh/portal/odw/si/Intro.aspx>. Water District 19's system I.D. is **38900**. Enter this I.D. number to access all of our records, including all of our regulated water quality test results and any exceedances.*

*If you have any concerns regarding the quality of your water, contact the District office and we will investigate it immediately.*

*In the digital version of this report, words or phrases which are bold faced and underlined are linked to web resources to deepen your understanding of topics touched on in this report. Click on word or phrase to activate link. A digital version of this report can be accessed on our website: [www.water19.com](http://www.water19.com).*

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Ellis Creek pumphouse and intake

## SOURCES: WHERE YOUR DRINKING WATER COMES FROM

Water District 19 utilizes both surface water and groundwater sources. We have 3 reservoirs which store the water after it has been treated.

**Surface Water:** Our surface water comes from Beall and Ellis Creeks. Water from the creeks is pumped to our Water Treatment Plant just outside of Vashon town. There the water is filtered and chlorinated before being pumped directly into the distribution system and also fills the million gallon (MG) storage tank, located at our wellfield. These sources typically account for 60% of the water produced in a year.

**Groundwater:** We have 6 wells, the wellfield on 103rd Ave. SW, the Morgan Hill Well on SW 216th St., the Vashon Meadows Well, and the Beall Well. The wellfield consists of three wells and is our primary groundwater source. Vashon Meadows and the Beall Well were not in operation in 2025. Groundwater typically comprises 40% of our annual production.

**Reservoirs:** We have three reservoirs (tanks). Two are located at our wellfield and the other is at Morgan Hill. At the wellfield, pumped groundwater is chlorinated before entering a 625,000 gallon storage tank. This water is transferred to the million gallon (MG) tank, where it is blended with surface water. We are a 'gravity feed' system; meaning water level in the 80 ft. MG tank determines the minimum pressure for our distribution system. Morgan Hill well water is chlorinated and stored in a 100,000 gallon tank on site before being pumped into the distribution system. Vashon Meadows water is chlorinated and pumped directly into the system at 184th Avenue SW. Beall Well is blended with surface water, at the treatment plant.

**Source Water Protection:** The District owns much of the land surrounding the watershed to protect our creeks. Access is limited to our sites and land not owned by us is residential, which is considered a low risk. Our wells are predominantly in the deep aquifer and are also considered to be low in contamination susceptibility. The WA Department of Health maintains an interactive database where you can access community source water assessments: <https://doh.wa.gov/community-and-environment/drinking-water/source-water/gis-mapping-tool>.

In addition to our regular source of water supply, Water District 19 has an **emergency intertie** with Heights Water located at 16400 Vashon Highway SW. The intertie provides an emergency source of water for both purveyors.

## SURFACE WATER TREATMENT PROCESS

Surface water enters the treatment plant and is treated with National Science Foundation (NSF) certified chemicals which aid filtration. The water then passes through the filtration process. **Turbidity** is a measure of the cloudiness of the water. We monitor turbidity because it is a good indicator of the effectiveness of our filtration system. Measured in NTU (Nephelometric Turbidity Units), the goal is to be below 0.30 NTU. The maximum NTU we reached last year was 0.10 NTU and our average was 0.036 NTU.

Post filtration, the water is **chlorinated** and stored in the clear well (a type of reservoir). Once in the clear well, the water flows through a series of baffles and chambers to provide adequate contact time for disinfection. Water is then pumped from the clear well into the distribution system

We consistently produce water which meets the Department of Health's Treatment Optimization Program (TOP). TOP goals are more stringent than the treatment requirements set forth by the EPA.

## WATER QUALITY: WHAT'S IN YOUR DRINKING WATER

### CHLORINATION AND DISINFECTION

We use liquid sodium hypochlorite (commonly known as bleach) as our disinfectant. **Chlorination** is very effective in killing disease-causing pathogens, such as bacteria, viruses, and protozoans. We are required to assure minimum *chlorine residuals* (concentrations) entering the distribution system and a 0.20 mg/L minimum chlorine residual throughout. We monitor chlorine concentrations daily as water enters the distribution system and throughout the system. The table below shows the range of chlorine concentrations in our system for 2025.

Chlorine Monitoring Point	Unit	Minimum	MRDL	Average	Range
Entry Into Distribution System	mg/L	0.20	4.00	1.26	0.42–2.04
Distribution System Samples	mg/L	0.20	4.00	0.89	0.20 - 1.92

While disinfection helps to maintain the safety of our water, chlorine can react with natural materials to form **Disinfection Byproducts** (DBP's) that may pose a health risk. We have been collecting data on DBPs every year since 2005 and we sample our distribution system for them quarterly. Our results are typically below the EPA MCL's\*.

2025 Disinfectant By-Products Results					
DBP's	Units	MCL	Avg	Max	Min
Total HAA's *	µg/L*	60	11.6	25.2	5.0
Total THM*	µg/L	80	55.5	71.6	31.4

# WATER QUALITY RESULTS 2025

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 the water poses a health risk.

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 (1-800-426-4791).

In order to ensure that tap water is safe to drink, the Washington State Department of Health (WA DOH) and the EPA prescribe regulations which limit the amount of certain

contaminants in water provided by public water systems. The Food and Drug Administration regulates contaminants in bottled water.

Contaminants that may be present in source water before treatment include:

- **Microbial contaminants**
- **Inorganic contaminants**
- **Pesticides and herbicides**
- **Organic chemical contaminants**
- **Radioactive contaminants**

WA DOH sets the water quality monitoring requirements yearly. See the table below for the most recent results.

This table shows the most recent water quality test results of our drinking water. Sampling is done at the entry point to the distribution system or prior to blending (Beall Well). Of the 135 regulated chemicals tested for, we provide data on the chemicals detected. The table does not list the regulated chemicals we tested for but did not detect (ND), this includes synthetic and volatile organic chemicals such as oils, solvents, herbicides and pesticides.

Contaminant	Units	MCL	Test Result					Typical Source of Contamination
			Surface Water S05	Well field 103rd S09	Morgan Hill Well S06	Vashon Meadows S11	Beall Well at WTP S10	
<b>WA DOH Source and ID</b>								
<b>EPA Regulated (Primary)</b>								
Arsenic	µg/L	<b>10</b>	1.2	6.8	1.6	1.8	<b>41</b>	Erosion of Natural Deposits
Nitrate	mg/L	<b>10</b>	0.93	ND	ND	0.56	ND	Erosion of Natural Deposits, leaching from septic systems
THM's	µg/L	<b>80</b>	3.3	<b>87.3</b>	35.9	ND	ND	Chlorination
Gross Alpha	pCi/L	<b>15</b>	ND	ND	ND	ND	0.834	Erosion of Natural Deposits
Radium 228	pCi/L	<b>5</b>	ND	ND	ND	ND	0.018	Erosion of Natural Deposits
<b>EPA Regulated (Secondary)</b>								
Hardness (CaCO3)	mg/L	-	76	64	85	100	100	Erosion of Natural Deposits
Iron	mg/L	<b>0.3</b>	ND	ND	0.16	<b>0.8</b>	ND	Erosion of Natural Deposits
Manganese	mg/L	<b>0.05</b>	ND	0.045	<b>0.059</b>	0.03	<b>0.091</b>	Erosion of Natural Deposits
<b>ND</b> - Not Detected <b>Bold</b> - Indicates contaminant exceedance								

## \*TERMS AND ABBREVIATIONS

**Maximum Contaminant Level Goal or 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 or MCL:** 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 technology.

**Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

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

**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.

**Secondary Contaminant:** These contaminants are traditionally considered aesthetic qualities and are not health based.

**90th Percentile value:** The 90th percentile is the value for which 90% of the data points are smaller. Example: Out of 10 homes samples, 9 were at or below given value.

**mg/L:** Milligrams per liter, equal to parts per million.

**µg/L:** Micrograms per liter, equal to parts per billion.

**pCi/L:** Picocuries per Liter

**THM:** Trihalomethane, a regulated disinfection by-product.

**HAA:** Halo Acetic Acids, regulated disinfection by-product.

**DOH:** Washington State Department of Health.

**CDC:** Center for Disease Control and Prevention

## WATER QUALITY: CONCERNS

**Lead and Copper** in drinking water are typically a result of corrosion of household plumbing systems. The *action levels\** for lead and copper are **0.015 mg/L** for lead and **1.30 mg/L** for copper. We tested 13 sites in 2024.

Lead in drinking water comes primarily from materials and components used in household plumbing. The more time water has been sitting in pipes, the more dissolved metals, such as lead, it may contain. Elevated levels of lead can cause serious health problems, especially for pregnant women and young children.

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. Only use cold water for drinking, cooking and making baby formula. Hot water is likely to contain higher levels of lead.

Information is available from the *Safe Drinking Water Hotline* or at <http://www.epa.gov/safewater/lead>.

### Lead and Copper Results 2024

	Units	MCL	90th percentile	Max
<b>Lead</b>	mg/L	0.015	0.002	0.003
<b>Copper</b>	mg/L	1.30	0.05	0.09

### Arsenic and Manganese:

*Your drinking water currently meets EPA's standard for arsenic. However, it does contain low levels of **arsenic**. There is a small chance that some people who drink water containing low levels of arsenic for many years could develop circulatory disease, cancer, or other health problems. Most types of cancer and circulatory disease are due to factors other than exposure to arsenic. EPA's standard balances the current understanding of arsenic's health effects against the cost of removing arsenic from drinking water.*

The Washington State Department of Health Office of Drinking Water (ODW) is in the process of modifying its recommendations for public water systems that have **manganese** in their water supply. We are actively following these developments and will continue to monitor and manage manganese as best we can. Manganese along with iron rust and sediment contributes to the color encountered by customers when they experience **brown water**. When encountering brown water from your tap, please flush a water line, such as an outside faucet, until the water runs clear. This can take anywhere from 10 - 40 minutes. Please call us to report brown water, as it is very helpful to us in identifying our trouble areas. Annual flushing of the system is meant to mitigate the accumulation of these deposits.

### Boil Order Advisory:

When a situation arises that may compromise the safety of our water supply we will issue a Boil Order Advisory to the affected customers. Customers in the impacted area are asked to **boil their water** before using it to avoid illness and other health issues. The advisory will remain in effect until sample results from the affected area of the water system confirm that the water is safe to drink.

When we suspect that our supply was contaminated or had the potential to be contaminated, we make an assessment whether issuing an advisory is warranted. We notify the Department of Health (DOH), flush and disinfect the affected lines, and gather bacteriological samples to test for coliform. When satisfactory results are received from the lab, we will notify DOH and lift the advisory.

In 2025 we issued two boil orders in response to two line breaks. If you receive a Boil Order Advisory, please follow the directions and call us with any concerns or questions. We will notify you when the water is safe to drink.

## PFAS: Forever Chemicals

**Per- and polyfluoroalkyl substances (PFAS)** are a group of human made chemicals manufactured and used worldwide since the 1950s. They are used in various non-stick, stain-resistant, and water-resistant consumer products, and certain types of firefighting foam.

PFAS are widely used chemicals, which break down very slowly over time. Hence the designation 'Forever Chemicals'. Many PFAS are found in the blood of people and animals all over the world and are present at low levels in a variety of food products and in the environment.

As part of the **EPA's Unregulated Contaminant Monitoring Rule (UCMR 5)**, we have been collecting biannual PFAS samples from all of our sources for the past two years. Thankfully, our findings do not detect the presence of PFAS's in our water.

### Treatment Technique Violation 2025

On August 28, 2025 we exceeded the maximum allowed filtration rate of 5.0 **gpm/sf** (gallons per minute per square foot) at our Water Treatment Plant. Thankfully, there did not appear to be an immediate health risk. Our primary disinfection controls of turbidity and chlorine continued to meet regulations during the event. We have added safeguards to our monitoring system to prevent a recurrence and apologize for any concern the notice may have caused.

*Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites, which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.*

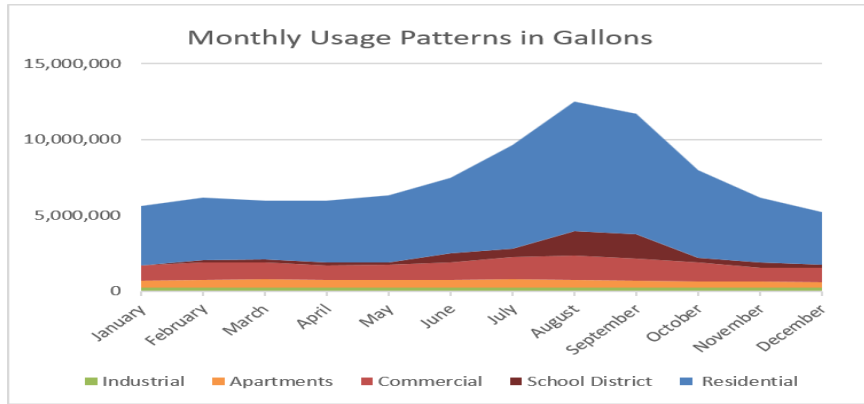
Water District 19 serves roughly 1500 customers. The majority of these are single family residential.

Category	% Usage
Residential	67.1
Multi family	5.4
Commercial	13.0
School District	8.6
Industrial	2.6
Other	3.3

## CONSERVATION: IT'S ABOUT IRRIGATION

In 2025, the average Water District 19 single-family residence consumed 150 gallons per day (gpd). This is well below the national average demand of 300 gpd (**EPA estimate**). We thank you for your conservation efforts; together we are making a difference. Multi-family residences average 68 gpd. Typically, our seasonal peak is between July and August. Lawn and garden irrigation can increase system demand by upwards of 50% during our dry season. **Conservative outdoor watering practices** are the most impactful way to conserve water.

Call or stop by our office to explore meaningful conservation strategies you can implement in and around your home.



## CONSERVATION: SUPPLY SIDE AND LEAKS

Supply side conservation is what can be done on our side of the meter. Water main leaks can account for significant loss of water. We conduct yearly leak detection surveys which helps us find active leaks. Oftentimes, leaks are discovered and reported by our customers. We would like to thank all of you for your vigilance and consideration. This is our system - which we jointly own and rely on. We will immediately investigate any possible or suspected leak. If you see or suspect a water leak, please call our office 206-463-9007 or e-mail [water19@water19.com](mailto:water19@water19.com)

One aspect of system leaks is our aging infrastructure. Of the 37 miles of pipe in our system, in the past twenty-four years we have replaced 3.8 miles of pipe. We recently completed replacing 1.2 miles of old steel pipe on 216th Ave SW, portions of Monument RD SW and also Vashon Highway SW.

The table below shows the amount of system leakage compared to the total volume produced. We are consistently below the statewide goal of 10%.

Distribution System Leakage Summary 2025		
Total Water Produced	110,484,534	Gallons
Customer Usage	102,454,684	Gallons
Distribution System Leakage	8,029,850	Gallons
Distribution System Leakage Percent	7.3	%
3 year Annual Average - Percent	7.7	%



**Board of  
Commissioners**

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Robin Pfohman, Secretary  
Angela Marshal

**General Manager**  
John Martinak

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**PUBLIC PARTICIPATION  
OPPORTUNITIES**

The Board of Commissioners meetings occur on the second Tuesday of every month at 6:00 p.m. at the District office and are always open to the public.

Other special meetings, as scheduled by the Board, are advertised and posted on our website.

**DRINKING WATER  
RESOURCES**

Water District 19  
(206) 463-9007  
[www.water19.com](http://www.water19.com)

U.S. Environmental Protection  
Agency  
Safe Drinking Water Hotline  
1-800-426-4719  
[www.epa.gov/safewater](http://www.epa.gov/safewater)

Washington State  
Department of Health  
Regional Office  
(253) 395-6750  
[www.doh.wa.gov/ehp/dw](http://www.doh.wa.gov/ehp/dw)



*Million & 625K gallon tank at wellsite*

**WATER DISTRICT**  
**19**