



2018 Consumer Confidence Report

This report is our annual opportunity to share with our customers what we do, where your water comes from and how it is treated, tested and delivered to you.

Water District #19 or the “District” is subject to many regulations that are derived from the Safe Drinking Water Act. All of the treatment, distribution and reporting requirements are overseen by the Washington State Department of Health (DOH) but mandated by the Environmental Protection Agency (EPA).

We are a not-for-profit, municipal corporation and considered a Special Purpose District. This means that we do not receive any tax monies, we do not levy property taxes, and all of our income is generated from the sale of water and water services. King County is our auditing agency, we receive no funds from the county, just oversight. Our governing body is a three-person commission elected by you, our customers and neighbors. Each board member serves a 6-year term, and a new member is elected every 2 years.

Sources for Water District 19

The District is unusual for Vashon in that we have both surface and groundwater sources. Our surface water sources are Ellis Creek at 8500 Ellisport Rd. and Beall Creek at 9086 SW Soper Rd. Both provide raw water to our treatment facility at 9075 SW Soper Rd. At the treatment plant we add a coagulant (poly-aluminum chloride) and a filter aid (cationic poly-amine) and then filter the water through layers of garnet sand and anthracite. Chlorine is then added, to provide a barrier of protection for you from potentially harmful organisms, and the treated water is pumped to the distribution system.

At the well field located at 18903 103rd Ave SW, three wells are pumped into a 625,000 gallon tank where it is chlorinated and pumped to a Million Gallon tank. The MG tank provides system pressure, and the combination of both tanks provide storage and fire flow.

There is also a well at 9720 SW 216th St. that fills a 100,000-gallon tank for additional storage and fire flow at the South end of the District.

Last year the District incorporated the Vashon Meadows well at 18500 Vashon Highway. This is a low-volume well that is used as a supplemental source, that pumps directly into the distribution system.

Finally the District has the Beall Well at 9075 SW Beall Rd. Testing has shown that water produced by this well exceeds allowable contaminant levels when used as a single source. Therefore the District has chosen to use this well only during times of unusual water need, when it can be blended with the District’s other sources to yield a product that safely meets State and Federal standards. The following is a synopsis of contaminants detected in the water; before blending occurs.

Definition of Water Quality Terms

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 (e.g. chlorine, chloramines, chlorine dioxide).

90th Percentile value: The 90th percentile is the value for which 90% of the data points are smaller.

Umhos/cm: micro-Ohms per centimeter.

mg/L: Milligrams per liter = 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: Haloacetic Acids, regulated disinfection by-product.

DOH: Washington State Department of Health.

MFL: Micro-fibers per liter

CU: Color Unit

Water Quality Standards

Drinking water, including bottled water, may reasonably be expected to contain small amounts of some contaminant. 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 provider.

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 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.

WA DOH prescribes the water quality monitoring requirements yearly. See Table below for the most recent results.

Contaminants that may be present in source water prior to treatment include:

Microbial contaminants - viruses, bacteria, and protozoans from human and animal activities.

Inorganic contaminants - salts, and metals that may be naturally occurring or from farming, petroleum production and use, or mining.

Pesticides and herbicides - commercial and domestic agriculture, yard and garden maintenance, road maintenance.

Organic chemical contaminants - Industrial activities and storm water run off.

Radioactive contaminants - Naturally occurring in our environment, gas and oil production, and mining.

Water District #19 Contaminant Detection List - Most Recent Detectable Levels

Microbial Contaminants			The District had no positive samples					
12/18/18	Total Coliform Bacteria	Distribution	No	None	1% of monthly samples	0		
The District also tests for Fecal Coliform, and E. Coli on a monthly basis; the samples come from different taps throughout the District. If you would like us to test a t your home, at an outdoor location, and you do not have a frost free yard hydrant we will consider your residence as a possible sampling site.								

Disinfection By-Products			Over MCL	Amount Detected	Federal MCL	Federal MCLG	Contaminant Source	Health Effects
Date	Contaminant	Location						
TTHM			No	.060 mg/L	.080 mg/L	N/A	By-product of drinking water disinfection	
12/10/18	Chloroform	Distribution System	No	.0524mg/L	N/A	N/A		
12/11/18	Bromodichloromethane	Distribution System	No	.0064 mg/L	N/A	N/A		
12/12/18	dibromochloromethane	Distribution System	No	.0009 mg/L	N/A	N/A		
12/10/18	HAA5	Distribution System	No	.014 mg/L	.060 mg/L	N/A	By-product of drinking water disinfection	
12/10/18	Monochloroacetic Acid	Distribution System	No	.0047 mg/L	N/A	N/A		
12/10/18	Dichloroacetic Acid	Distribution System	No	0033 mg/L	N/A	N/A		
12/10/18	Trichloroacetic Acid	Distribution System	No	.0057mg/L	N/A	N/A		

Date	Contaminant	Location	Over MCL	Amount Detected	Federal MCL	Federal MCLG	Contaminant Source	Health Effects
Asbestos							Decay of asbestos Cement water mains Erosion of natural Deposits	
10/17/18	Asbestos	Distribution	No	0.123 MFL	7 MF/L	7 MF/L		

Date	Contaminant	Location	Violation	Amount Detected	Federal MCL	Federal MCLG	Contaminant Source	Health Effects
Radionuclides							Erosion of natural deposits	
3/15/18	Gross Alpha	9075 SW Soper Rd	No	0.94 pCi/L	15 pCi/L			
3/15/18	Radium 229	Beall Well	No	.94 pCi/L	5 pCi/L			

Water District #19 Contaminant Detection List - Most Recent Detectable Levels

Date	Contaminant	Location	Over MCL	Amount Detected	Federal MCL	Federal MCLG	Contaminant Source	Health Effects
Nitrates							Runoff from fertilizer, septic leaching, natural deposits	
10/9/18	Nitrite-N	Treatment Plant	No	.10 mg/L	1.0 mg/L	1.0 mg/L		
10/9/18	Nitrate-N	Treatment Plant	No	.94 mg/L	10 mg/L	10 mg/L		
10/9/18	Nitrate/Nitrite	Treatment Plant	No	.94 mg/L	N/A	N/A		

Date	Contaminant	Location	Over MCL	Amount Detected	Federal MCL	Federal MCLG	Contaminant Source	Health Effects
Arsenic							Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes	Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.
10/9/18	Arsenic	Beall Well	Yes	0.039 mg/L	.010 mg/L	N/A		
EPA is reviewing the drinking water standard for arsenic because because of special concerns that it may not be stringent enough. Arsenic is a naturally occurring mineral known to cause cancer in humans at high concentrations.								

Date	Contaminant	Location	Violation	Amount Detected	Federal MCL	Federal MCLG	Source Lead	Source Copper
Lead & Copper							Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives	Corrosion of household plumbing systems; Erosion of natural deposits
7/16/18	Lead	Distribution	No	0.0017	.015 mg/L	.015 mg/L		
7/16/18	Copper	Distribution	No	.087 mg/L	1.3 mg/L	1.3 mg/L		

Date	Contaminant	Location	Violation	Amount Detected	Federal MCL	Federal MCLG	Contaminant Source	Health Effects
Inorganic Chemicals			Unless noted MCL and MCLG are the same					
4/6/17	Iron	Beall Well	No	0.18	.3 mg/L			
4/6/17	Sodium	Beall Well	No	55 mg/L	N/A			
4/6/17	Hardness	Beall Well	No	100 mg/L	N/A			
4/6/17	Conductivity	Beall Well	No	490 Umhos/cm	700 Umhos/cm			
4/6/17	Turbidity	Beall Well	No	.35 NTU	N/A			
4/6/17	Fluoride	Beall Well	No	.18 mg/L	4 mg/L			
4/6/17	Total Dissolved Solids	Beall Well	No	320 mg/L	500 mg/L			
4/6/17	Barium	Beall Well	No	.4 mg/L	2.0 mg/L			
4/6/17	Cadmium	Beall Well	No	.002 mg/L	.005 mg/L			
4/6/17	Chromium	Beall Well	No	.02 mg/L	.10 mg/L			
4/6/17	Mercury	Beall Well	No	.0004 mg/L	.002 mg/L			
4/6/17	Selenium	Beall Well	No	.01 mg/L	.05 mg/L			
4/6/17	Silver	Beall Well	No	.1 mg/L	.1 mg/L			
4/6/17	Color	Beall Well	No	15 CU	15 CU			
4/6/17	Chloride	Beall Well	No	20 mg/L	250 mg/L			
4/6/17	Sulfate	Beall Well	No	50 mg/L	250 mg/L			
4/6/17	Zinc	Beall Well	No	.2 mg/L	5 mg/L			
4/6/17	Beryllium	Beall Well	No	.0008 mg/L	.004 mg/L			
4/6/17	Nickel	Beall Well	No	.1 mg/L	N/A			
4/6/17	Antimony	Beall Well	No	.006 mg/L	.006 mg/L			
4/6/17	Thallium	Beall Well	No	.002 mg/L	.002 mg/L			
4/6/17	Cyanide	Beall Well	No	.01 mg/L	.20 mg/L			

Water Rights, Water Units, Water Use & Conservation

The District has 1822 water units that are providing water through 1483 connections. Most of the units are already connected to the system, but there are some that are not yet ready to connect, or are connected but not using water. Using past and forecasted water consumption and regulatory guidelines, the District plans for current use, future connections, and required fire flows, all while adhering to what can legally be withdrawn from our sources according to the District water rights, and the ability to sustainably withdraw water from those sources.

So why are there so many units without meters? And why do we charge for meters that are not connected? All units are included in District planning for future water demand. The District collects base charges on all water units, including unconnected units, so that we can ensure that when any water unit is ready to connect, that water will be there for you to use.

2018 Metered Water Use				2018 Metered Use (Gallons)	ERU Value in GPD
Equivalent residential unit (ERU) is the planning unit for determining demand					
Account Classification	Number of Metered Ac- cts	Number of ERU's	Zero Read Accounts *		
Residential	1,242	1,304	62	68,655,551	151
Industrial	9	9	0	3,356,726	1,022
Commercial	168	229	61	13,389,913	218
Public Entity	20	25	5	2,118,635	290
Schools	7	7	0	7,572,644	2,964
Fire Dept	3	3	0	654,588	598
Multi-Family	34	245	211	5,511,255	62
Bulk			0	423,264	
Flushing			0	817,061	
Totals	1,483	1,822	339	102,499,637	

Examples of zero use accounts: we have 34 apartment buildings that represent 245 water units, or 34 buildings that are representing 245 individual living units, not every unit has a meter, but every building does. A customer purchases additional water units for a business zoned property to ensure enough water is available for multiple businesses, or high water use business.

While the District is able to provide water to meet the current demand of its customers, there is also a need to ensure that the additional units not withdrawing water will have the water available to them when they connect. Those of you that have water units that are not connected, and paying a base charge, are providing revenue for operations so that when you are ready to connect; the water is there for you.

We are planning for you, and you are helping with the day to day costs of keeping that water available to you. So thanks to all of our customers for making water available, for now and in the future.

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During 2018 the District participated in Unregulated Contaminant Monitoring (UCMR) in partnership with the Environmental Protection Agency (EPA).

The results of this monitoring may be accessed by contacting Jamie Hatton at the District office.

Some of the chemicals monitored may become new regulated contaminants in the future; and /or existing regulations could become more stringent.



District Staff

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