Cross Valley
WATER DISTRICT

Water Quality Report
2018

What you will find in this report:

- Water Source – Where your water comes from
- Source and types of contaminants
- Test results for the water tested in your area
- Explanation of the results
- Regulated and Unregulated Contaminants

Cross Valley Water District is pleased to provide you with our 2018 Water Quality Report. In this report we will provide you with information about your water source and the results of our water quality testing in 2018.

Cross Valley Water District welcomes public interest and participation with decisions regarding our community's drinking water. Regular meetings of the Board of Commissioners are held on the first and third Tuesday of each month at 2:30 p.m . Meetings are held at the District's Administrative Office located at 8802 180th St SE, Snohomish 98296. Please visit the District website to view the upcoming meeting agenda and if you wish to address the Board please contact the General Manager to reserve your spot on the agenda. The General Manager, Mike Johnson can be reached at 360-668-6766.

For More Information on Water Quality Issues:

Cross Valley Water District
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Snohomish, WA
98296-4804
(360) 668-6766
cvwd@crossvalleywater.net

EPA Safe Drinking Water
Hotline (800) 426-4791
www.epa.gov/safewater
Email questions to:
hotline-sdwa@epamail.epa.gov

Washington State Department of Health
Division of Drinking Water
1-800-521-0323
www.doh.wa.gov/ehp/dw

Why Are We Sending This Report?

The Safe Drinking Water Act (SDWA) requires community water systems to provide customers with annual reports on the quality of their drinking water. This information is to raise consumer awareness of where their water comes from and to help them understand the process by which safe drinking water is delivered to their homes. All people are exposed to sources of disease and illness every day in many different ways. Typically, healthy people have normal immune systems that can help prevent diseases from many sources. 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 are available from the Safe Drinking Water Hotline (800-426-4791). The information in this report has been collected and reported in accordance with the water quality standards established by the EPA and DOH. Cross Valley is dedicated to providing you with the safest and most reliable water supply.

The Facts on Contaminants

The sources of drinking water (both tap and bottled water) include streams, rivers, lakes, ponds, reservoirs, springs, and wells. Drinking water, including bottled water may reasonably be expected to contain at least small amounts of some contaminants. A contaminant is defined as any substance in water including minerals. The presence of contaminants does not necessarily indicate that water poses a health risk.

As water travels over the surface of the land or through the ground, naturally-occurring minerals, and in some cases radioactive material, dissolve in the water. Water can also pick up substances resulting from the presence of animals or from human activity.

Contaminants that my be present in source water are microbes, pesticides, herbicides, organic or inorganic chemicals, and radioactive minerals.

More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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).

EPA Lead Statement:

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. Cross Valley Water District is responsible for providing high quality drinking water, and the highest concentration of lead present in samples was 2 ppb, significantly below the action level of 15ppb. However we cannot control the variety and type 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 or at http://www.epa.gov/safewater/lead.

SOURCE NAME	FLOW RATE (In gpm)	WELL SCREEN DEPTH - FT.	PRESSURE ZONE	TREATMENT
1 Well	130	171-191	640	None
3 Well	350	208-238	640	None
5 Well	450	217-244	756	Filtration & Chlorination
6 Well	400	235-255	575	Filtration & Chlorination
7 Well	350	171-191	640	None
7A Well	150	204-214	640	None
7B Well	500	186-199	640	None
8 Well	350	174-244	640	None
9 Well	980	262-300	640	None
10 Well	700	220-271	575	Filtration & Chlorination
Woodlane Well	40	156-168	640	None
Everett (Surface Water)	N/A	N/A	Multiple	Filtration Chlorination Fluoridation

DO I RECEIVE GROUND WATER OR SURFACE WATER TO MY HOME?

Cross Valley Water District has several sources from which we draw water. One source is from our own wells listed above. Some of our customers also receive water that we purchase from the City of Everett source. This water is surface water that comes from the Sultan River (via Spada Reservoir), located approximately 30 miles east of Everett. This water is treated at the Lake Chaplin Treatment plant where Chlorine & Fluoride is added. Customers in the Fobes Hill, Swans Trail, Seattle Hill, Lowell Larimer Road and the general Clearview area receive water from the City of Everett source. All other customers receive ground water from Cross Valley Water District wells.

Source map on page 2.

If you do not know from which water source your water is drawn, please call our office and we can assist you .

CONSERVATION KITS

Each year we have a limited number of indoor and outdoor conservation kits available at our office. Please stop by and pick up a kit!

Cross Valley WATER DISTRICT

В этом сообщении содержится важная информация о воде, которую вы пьёте. Попросите кого-нибудь перевести для вас это сообщение или поговорите с человеком, который понимает его содержание.

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.

此报告包含有关您的饮用水的重要信息。请人帮您翻译出来，或请看懂此报告的人将内容说给您听。

2018 WATER QUALITY ANALYSIS RESULTS FROM EVERETT AND THE WELLS OF CROSS VALLEY

		Wells 1, 3, 8, 9 & Woodlane					Wells 7, 7a & 7b	Wells 5,6&10	Everett				
		Results	Results	Results	Range	Average	Results	Results	Range	Average	Complies	MCL	Major Source Listed by EPA
REGULATED	Units	Woodlane	3 & 8	1 & 9						Value			
ARSENIC	mg/L	0.0013	0.003	0.005	.0013-.005	0.003	0	0.004	<.0001-.0002	0.0001	Yes	0.01	Erosion of natural deposits: runoff from orchards, runoffs from glass & electronics production waste
ALKALINITY	mg/L	N/D	N/D	N/D	N/D	N/D	ND	ND	12.0-22	16.6	Yes		
ALUMINUM	mg/L	N/D	N/D	N/D	N/D	N/D	ND	ND	.008-.038	0.02	Yes		
BARIUM	mg/L	0.007	0.004	0.003	.003-.007	0.005	0.003	0.003			Yes	2	
CHROMIUM	mg/L	0.002	0.002	ND	ND-.002	0.002	ND	ND			Yes	0.1	
FLUORIDE	mg/L	ND	ND	0.1	ND-.1	0.028	ND	0.014	0.03-0.9	0.07	Yes	4	CVWD - Naturally occurring, erosion of natural deposits. Everett - Fluoride is added to your water during treatment
NITRATE-N	mg/L	3.15	2.09	0.66	ND-3.15	1.29	0.67	ND	.011-.086	0.046	Yes	10	Erosion of natural deposits and animal wastes
MANGANESE	mg/L	ND	0.003	0.004	ND-.004	0.003	0.001	0.02			Yes	0.05	
CHLORIDE	mg/L	7.1	5.3	3.5	3.5-7.1	5.300	2.6	5			Yes	250	
SULFATE	mg/L	12	9.7	8.3	8.3-12	10.000	7.53	6.3			Yes	250	
SODIUM	mg/L	7.6	7.3	6.7	6.7-7.6	7.200	5.70	8.8	5.9-6.5	6.2	Yes		
HARDNESS as Calcium Carbonate	mg/L	128.6	94.1	72.9	72.9-128.6	98.533	68	75.3	6.0-14	9.3	Yes		
ELECTRICAL CONDUCTIVITY	uS/cm	278	218	171	171-218	222.333	155	183			Yes	700	
TURBIDITY	NTU	0.23	0.2	0.22	.2-.23	0.217	0.11	0.3	100%	0.06	Yes	1	Soil Erosion
RADIUM	pCi/L	N/D	0.683	N/D	N/D-.683	0.342	N/D	N/D			Yes	5	
FREE CHLORINE	mg/L	N/A	N/A	N/A	N/A	N/A	N/A	0.77	0.2-1.1	0.6	Yes	2	
PH								7.4	7.5-9.1	7.6	Yes		
DISINFECTION BY-PRODUCTS													
HALO-ACETIC ACIDS HAA 5	ug/L	N/A	N/A	N/A	N/A	N/A	N/A	30.46	28-46	40	Yes	60	By-product of drinking water chlorination
TOTAL TRIHALOMETHANE	ug/L	N/A	N/A	N/A	N/A	N/A	N/A	29.73	31-59	52	Yes	80	By-product of drinking water chlorination
UNREGULATED												MRL	Minimum Reporting Level
VANADIUM	ug/L	3.97	4.65	7.88	3.97-7.88	5.500	1.01	2.39				0.2	
MOLYBDENUM	ug/L	ND	ND	ND	ND	ND	ND	1.05				1	
STRONTIUM	ug/L	0.9	60.7	81.4	.9-81.4	47.667	57.7	78				0.3	
CHROMIUM	ug/L	0.89	0.97	ND	.89-.97	0.801	ND	ND				0.2	
HEXAVALENT CHROMIUM	ug/L	1.214	1.286	ND	1.214-1.286	1.250	0.056	0.032				0.03	

COLIFORM SAMPLIING		Cross Valley Wells					Everett Water Supply					Limit	
COLIFORM BACTERIA SAMPLES	% Pos				0%	0%			0	0	Yes	5% Pos	Everett collects 120-125 samples per month*CVWD collects 20 per month

LEAD AND COPPER SAMPLING		Cross Valley Wells				Everett Water Supply					
Parameter	Units	Ideal Goal	Action Level	90% Level	# exceed Action	Ideal Goal	Action level	90% level	# exceed Action	Complies	Major source listed by EPA
LEAD	ppb	0	15	2	0 of 30	0	15	2	0 of 108	Yes	Corrosion of Household Plumbing
COPPER	ppm	0	1.3	0.354	0 of 30	1.3	1.3	0.141	0 of 108	Yes	Corrosion of Household Plumbing

Everett is required to operate corrosion control treatment at or above a minimum daily average pH of 7.4. The average daily pH cannot be below 7.4 for more than 9 days every six months. In 2018, the average daily pH dropped below 7.4 for two days.

Total coliform bacteria monitoring is used to track microbial quality in the water distribution system. Everett collects 120-125 samples per month. Not more than 5 percent of the monthly total can be positive for total coliforms. 0 total coliforms were detected in Everett in 2018.

Cross Valley Water collects 20 Samples per Month, we had no samples in 2018 with positive coliform presence.

Fluoride is added to areas served by the City of Everett supply in carefully controlled levels for dental health. In January 2011, the US Department of Health and Human Services (HHS) released a proposal to reduce the recommended drinking water fluoride concentration target to a single national standard of 0.7 ppm based on recent research on changed fluoride and water consumption patterns in the U.S. This recommendation has not been made final in Washington State, but in 2011 Everett and other water systems in Washington reduced the target fluoride residual in their drinking water from 1.0 ppm to 0.8 ppm. 0.8 ppm is the lowest level allowed under current State regulations. The Washington State Board of Health is expected to adopt 0.7 ppm as the new standard. At that time, the Washington State Department will change the requirements and water systems will begin adjusting fluoride levels to the new recommended level.

Haloacetic acids and trihalomethanes form as by-products of the chlorination process that is used to kill or inactivate disease-causing microbes.

The TTHM and HAA5 results are from locations within Everett service area and the portion of the Cross Valley Service area where the source is wells 5, 6, and 10 that are monitored to determine compliance with current regulations.

* = range of results taken from all four locations. ** = highest locational running annual average of the four sites that were monitored.

Turbidity is a measure of the amount of particulates in water in Nephelometric Turbidity Units (NTU). Particulates in water can include bacteria, viruses and protozoans that can cause disease. Turbidity measurements are used to determine the effectiveness of the treatment processes used to remove these particulates. The values reported are the lowest monthly percentage of samples that met the EPA turbidity limit and the highest single filtered water turbidity measurement obtained during the year. In 2018, no filtered water turbidity results were above the EPA 0.3 NTU limit so the lowest percentage was 100%. The plant targets production of filter water turbidities of 0.10 NTU or less.

Turbidity, Nitrate, Total Coliform, Bacteria, Fluoride, Bromodichloroacetic Acid, Chloroform, Lead, Copper… What do all these terms mean?

Maximum Contaminant Level (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 (MCL) -The level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as is feasible using the best available treatment technology.

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

Action Level (AL) - The concentration of a contaminant which, if exceeded, triggers treatment of other requirements that a water system must follow.

Parts per Million (ppm) / Parts per Billion (ppb) -A part per million means that one part of a particular contaminant is present for every million parts of water. Similarly, parts per billion indicate the amount of contaminant per billion parts of water.

Total Coliform Bacteria - Testing is used to monitor microbial quality in the water distribution system.

Fluoride- Is added to the water (Everett Water Supply Only) in carefully controlled levels for dental health. The Fluoride in well water comes from natural sources.

Nitrate- The small amount of nitrate comes from natural sources in the water shed.

Turbidity- Is a measure of the amount of particulates in water measured in Nephelometric Turbidity Units (NTU).

Particulates in water can include bacteria, viruses and protozoans that can cause disease. Turbidity measurements are used to determine the effectiveness of the treatment process in removing these particulates. 95% of all combined filter effluent samples, must be less than, or equal to 0.3 NTU and no single turbidity sample can be greater that 1.0 NTU.

1 Bromodichloroacetic Acid, Chloral Hydrate, Dichloroacetonitrile, 1,1 Dichloropropanone, 1,1,1 Trichloropropanone, Total Organic Hallides- These substances are by-products of the chlorine disinfection process and were monitored quarterly as part of the Information Collection Rule (ICR) requirements.

2 Bromodichloromethane, Chloroform, Dichloroacetic Acid, Trichloroacetic Acid - Theses substances are disinfection by-products which must be monitored quarterly every year to determine compliance with the Disinfectants/Disinfection By-products Rule regulations.

Not Applicable (N/A) - Means that EPA has not established MCLGs for these substances.

Microbial, Turbidity and Inorganics - All parameters are below EPA standards.

Lead & Copper - EPA requires monitoring for the presence of lead and copper. The 90% level is the highest result obtained in 90% of the samples when ranked from lowest to highest findings. This indicates there is virtually no lead or copper in the water you are provided, but your household plumbing may contribute to the presence of lead and copper at your tap.

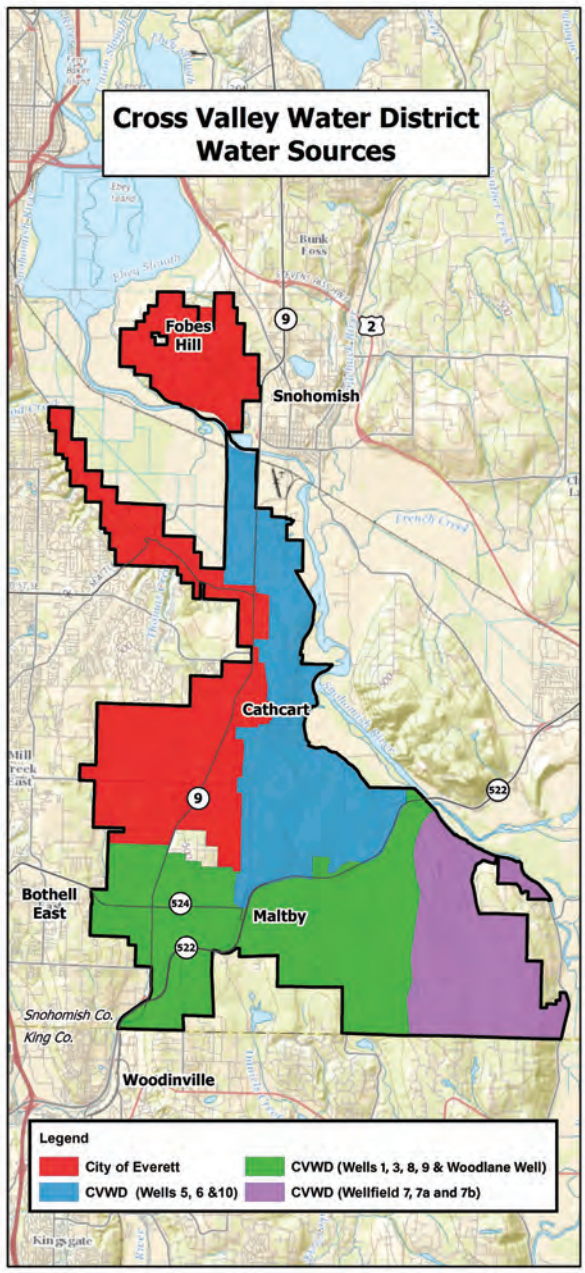
ND & NR - "ND" means not detected. "NR" means the contaminant was not regulated by EPA.

Arsenic- In January 2001, considerable media attention was given to the Bush administration's decision to review the new arsenic standard for drinking water approved by President Clinton. After extensive review of all available health effects data, the USEPA and President Bush reinstated the new maximum contaminant level (MCL) for arsenic in drinking water of ten parts per billion (10 ppb). Over the past year, Everett and Cross Valley have routinely monitored the treated drinking water for arsenic. None near the MCL was detected in any of the samples collected.

Treatment Polymers - During water treatment, polymer coagulants are added to improve coagulation and filtration that remove particulates from water. The particulates that are removed can included viruses, bacteria and other disease causing organisms. The USEPA sets limits on the type and amount of polymer that a water system can add to the water. In addition to the EPA limits, the State of Washington also requires that all polymers used be certified safe for potable water use by an independent testing organization (NSF International). During treatment, Everett adds only NSF approved polymers and the levels used are far below the safe limits set by USEPA.

Disinfection By-Products and Risks to Pregnancy - Some recent health effects studies have suggested that high levels of trihalomethanes (THMs) in drinking water may be linked to increased risks for birth defects or miscarriage in pregnant women. THMs are one of the by-products that form when drinking water is chlorinated to kill disease-causing organisms.

The studies suggest that levels ofTHMs above the new EPA safety standard of 80 parts per billion ppb) may be of concern for pregnant women. In January 2002, the Environmental Working Group and the US Public Interest
Research Group released a joint independent report listing all US water systems since 1995 that have or are currently providing water exceeding the new 80 ppb standard. Since required monitoring began nearly fifteen years ago, the THM content of your water has been significantly below the new maximum allowable safe level of 80 ppm and currently contains less than half of the amount.



Detected Contaminants from Unregulated Contaminant Monitor Rule 4 (UCMR4) Sampling

Parameter	Major Source	Units	Everett Water Results	
			Range Detected	Average Value Highest Result
Total Organic Carbon (TOC)[1]	Naturally Present	ppm	<0.81-2.6	1.35
Manganese[2]	Naturally Present	ppb	<0.4-1.1	0.57
Bromochloroacetic Acid[3]	By-product of clorination	ppb	<0.3-0.67	0.47
Bromodichloroacetic Acid[3]	By-product of clorination	ppb	<0.52-1.04	0.74
Brominated Haloacetic Acids (HAA6Br)[3]	By-product of clorination	ppb	<0.6-1.7	1.2
Haloacetic Acids (9) (HAA9)[3]	By-product of clorination	ppb	29.0-47.6	38.9

[1]Samples taken at treatment plant influent. [3]Samples taken at treatment plant effluent.
[3]Samples taken in the distribution sys.

Detected Contaminants from Unregulated Contaminant Monitor Rule 4 (UCMR4) Sampling

Parameter Sample Events #1-8	Major Source	Units	Cross Valley Water Results	
			Range Detected	Average Value Highest Result
Anatoxin-a	Algae	ug/L	<0.03	<0.03
Cylindrospermopsin	Algae	ug/L	<0.09	<0.09
Total microcystins	Algae	ug/L	<0.3	<0.03