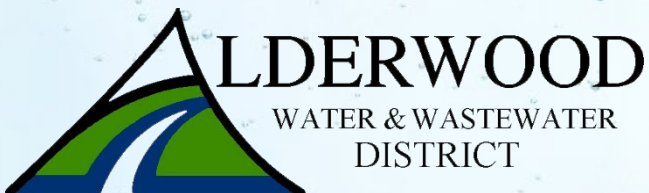




# Water for Life, Forever

## 2023 Drinking Water Quality Report



# 2023 Water Quality Report

Each year, Alderwood Water & Wastewater District (AWWD) prepares a **Water Quality Report** to keep you informed about the water and services that we have delivered to our customers over the past year. Our goal in providing this information is to help you understand what is in your water—and what is not.

This report includes details about where your water comes from, what it contains, and how it compares to strict Federal water quality standards. It also provides water treatment information, facts on contaminants, and issues of concern to immune-compromised persons.

This report contains important information about your drinking water. If English is not your first language, we encourage you to have someone translate it for you, or you may consider speaking with someone who can help explain the contents of the report to you.

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.

Naglalaman ang report na ito ng importanteng impormasyon tungkol sa iyong iniinom na tubig. Magkaroon ng isang tao na isasalin ito sa iyong wika para sa iyo, o makipag-usap sa isang tao na nakakaintindi dito.

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

Tài liệu này có tin tức quan trọng về nước uống của quý vị. Hãy nhờ người dịch cho quý vị, hoặc hỏi người nào hiểu tài liệu này.

이 보고서에는 귀하의 식수에 대한 중요한 내용이 실려있습니다. 그러므로 이 보고서를 이해할 수 있는 사람한테 번역해 달라고 부탁하시기 바랍니다.

该报告包含有关您的饮用水的重要信息。如果英语不是您的母语，请找人为您翻译，或与懂英语的人交谈。

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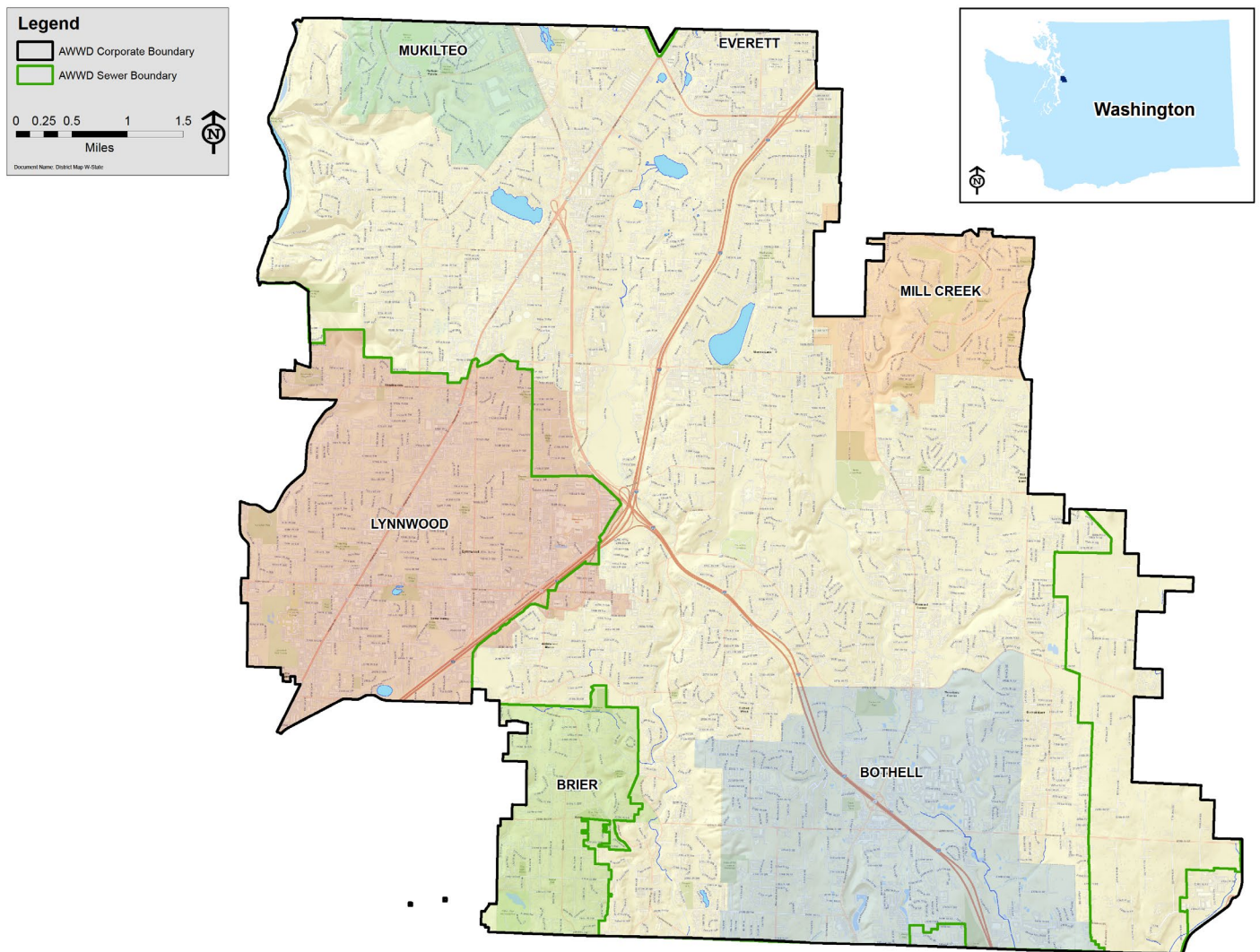
# CLEAN, RELIABLE WATER AND WASTEWATER SERVICES FOR A HEALTHY COMMUNITY

## WHERE DOES MY WATER COME FROM?

Your drinking water is purchased from the City of Everett and comes from Spada Reservoir, located at the headwaters of the Sultan River about 30 miles east of Everett. Spada Reservoir was created in 1964 in partnership with the Snohomish County Public Utility District (PUD) and holds about 50 billion gallons of water. From the Spada Reservoir, the water travels through a pipeline to Chaplain Reservoir, where the City of Everett Water Filtration Plant is located.

## WHO DOES AWWD SERVE?

AWWD serves 44 square miles of area in southwest Snohomish County. AWWD's service area includes the neighborhoods of Alderwood Manor, Martha Lake, North Creek, Picnic Point, and Canyon Park.






# Is My Water Safe?

Yes, AWWD's drinking water **surpasses all federal and state drinking water requirements.**

Day after day, year after year, AWWD puts you and your family's health as our number one priority. We understand the importance of clean drinking water to a healthy life.

All water sources (both tap and bottled water) contain impurities. As water flows over the surface of the land and 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.

In order to ensure that tap water is safe, the U.S. Environmental Protection Agency (EPA) and the Washington State Department of Health (DOH) prescribe regulations that **limit the amount of certain contaminants** in public water systems. The U.S. Food and Drug Administration (FDA) and the Washington State Department of Agriculture (WSDA) regulations establish limits for contaminants in bottled water that must provide the same protection for public health.



AWWD **closely monitors** these regulations, as well as any emerging public health risks specific to our service area. We **test our water** frequently to ensure that we always meet these standards.

# What About Lead?

There is nothing more important to us than providing safe, reliable, affordable water. As part of this mission, we want to keep your household safe from lead.

Lead is a powerful toxin that is harmful to human health. Infants, young children, and pregnant women are particularly vulnerable to the adverse effects of lead because of the way lead accumulates in the body.

In partnership with the City of Everett, AWWD treats and tests your water to ensure it is lead-free when it leaves the treatment facility, and travels through the water mains to our customers. Some older homes may have private service lines, household plumbing materials, and faucets made from lead. Those fixtures can deposit lead into a home's water.

## HOW DO I KNOW IF I HAVE LEAD IN MY WATER?

If you think you may have lead in your home's pipes or water fixtures, you can test for it using an inexpensive home test kit. Kits are available online and at most major hardware stores.

If you find lead in your home's water, follow these steps to begin limiting your exposure.



Drink cold water.



If your water tap hasn't been used for a few hours, run cold water for two minutes before using.



Especially if you are pregnant or have children under the age of six, use a filter certified to remove lead by NSF International ([nsf.org](https://www.nsf.org)).



Replace faucets and indoor plumbing with "lead-free" components.



Hire a plumber to replace your lead service lines with copper ones.

## CAN LEAD AFFECT MY PETS?

Lead can impact animals the same way it does humans. Because domestic animals consume a relatively high volume of water relative to their body weight, pet owners with lead in their home plumbing may want to take precautions.





# Drinking Water Facts



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 U.S. EPA Safe Drinking Water Hotline at **1-800-426-4791**.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, 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 for infections. These people should seek advice about drinking water from their health care providers.

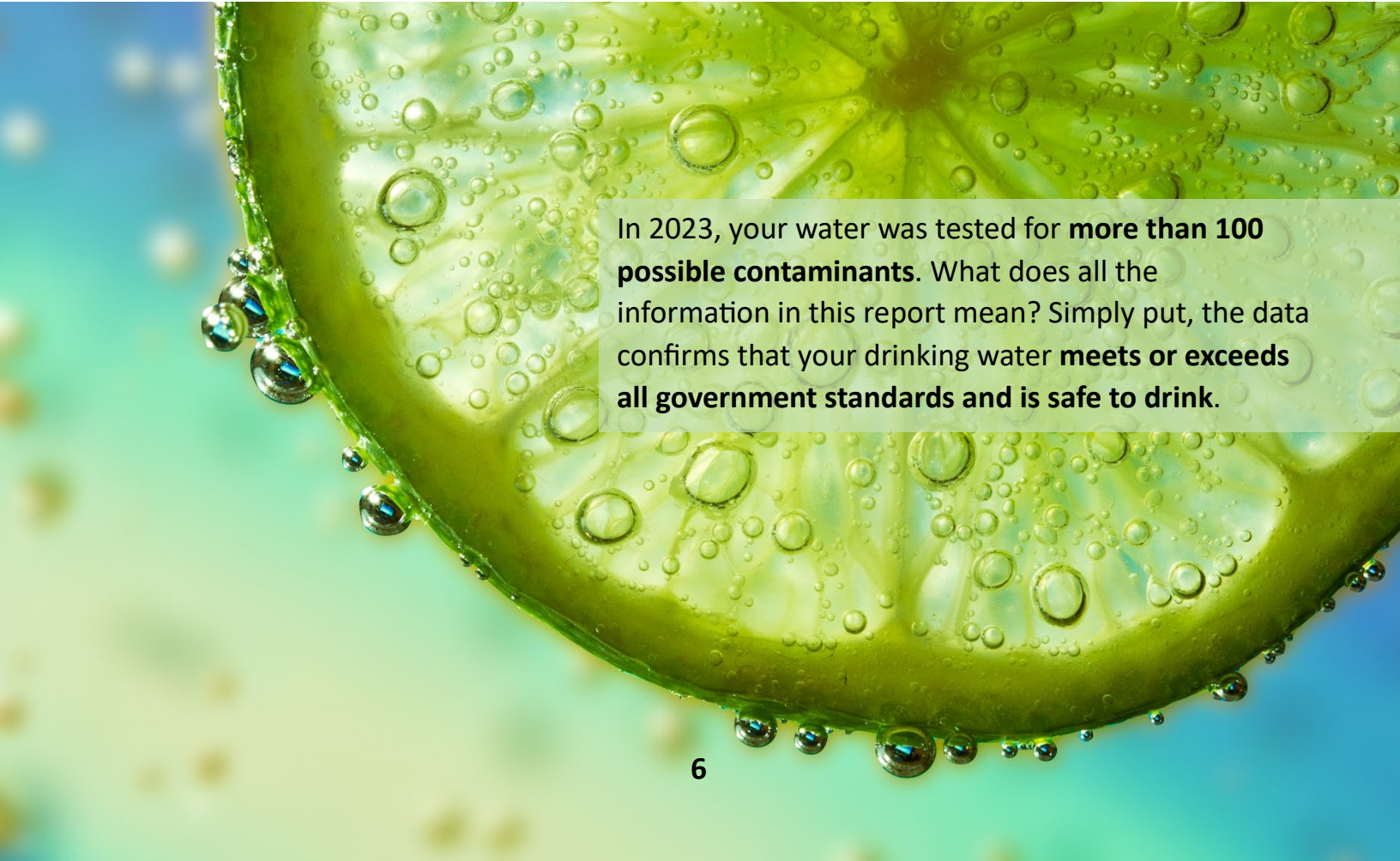
The U.S. EPA and Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline listed above.



# Drinking Water Facts

Contaminants 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 found in urban stormwater 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 surface water, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and may also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can be naturally occurring, or be the result of oil and gas production and mining activities.



In 2023, your water was tested for **more than 100 possible contaminants**. What does all the information in this report mean? Simply put, the data confirms that your drinking water **meets or exceeds all government standards and is safe to drink**.



# Water Conservation

## NEW WATER CONSERVATION GOALS

Previously, in May of 2022, AWWD's Board of Commissioners adopted new conservation goals designed to protect water as a critical resource, now and into the future. Our initiatives include the following:

- Conservation Pricing
- Public Outreach
- Toilet Rebates
- Indoor Retrofit Kits
- School Based Education
- Irrigation Account Audits
- Leak/High Use Notifications
- Outdoor Irrigation Kits/Timers
- Consumption History on Water Bills
- Commercial Outdoor Audits
- Public Education ([www.awwd.com](http://www.awwd.com))

The newest initiatives include public education and public outreach. Please explore additional conservation resources (links, videos, and materials for children) on our website. As part of our public outreach, we want to hear from you. Email us at [Conservation@awwd.com](mailto:Conservation@awwd.com).

## WHY USE WATER CONSERVATION KITS?

Leaks cost money. As spring begins, households will be increasing water use. Here is how many gallons per day (GPD) of water you can save using conservation kits:

- 5.31 GPD Indoor Kit – Low-flow Shower Head
- 5.31 GPD Indoor Kit – Kitchen Aerator
- 6.37 GPD Outdoor Kit – Deluxe Hose Nozzle
- 6.37 GPD Outdoor Kit – Automatic Shut-off Timer
- 7.04 GPD Efficient Toilet Rebate (*for replacing inefficient toilets*)

If you used all these, over the course of one year you could save about 11,100 gallons of water. That is enough to fill 300 bathtubs – equal to what the average single family uses in two months! Visit [www.awwd.com](http://www.awwd.com) and search 'Free Conservation Kits' to discover how to get your **free** conservation kits.



Deluxe Hose Nozzle



Automatic Shut-Off Timer



Moisture Meters



Kitchen Aerators



Low-flow Shower Heads

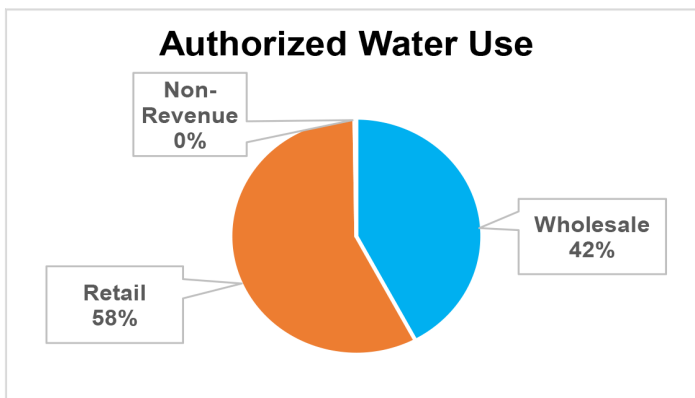
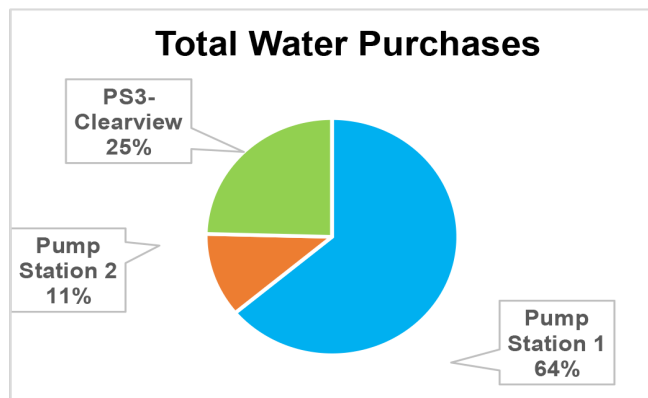


# Water Use Efficiency Report 2023



2023

## AWWD Water Use Efficiency Statistics (In Gallons)



TOTAL WATER PURCHASED	9,135,246,208
Pump Station 1	5,837,935,450
Pump Station 2	1,048,632,759
Pump Station 3 - Clearview (AWWD Portion Only)	2,248,678,000

TOTAL AUTHORIZED WATER USAGE	8,643,324,257
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<u>RETAIL</u>	4,973,889,758
Commercial	857,566,065
Multi-Family	1,213,068,801
Single-Family	2,903,254,893

<u>WHOLESALE</u>	3,649,706,809
Edmonds	1,028,503,427
Lynnwood	1,293,777,628
Mountlake Terrace	549,538,449
Mukilteo District	572,586,679
Silver Lake District	205,300,627

<u>NON-REVENUE AUTHORIZED</u>	19,727,689
Water Quality	3,693,079
Water Division	5,931,665
AWWD Facilities	4,636,852
Snohomish County Fire Districts & Training Facility	2,515,699
Water Use Permits	1,086,225
CIP Projects	667,956
PDS - Development Services	597,114
Wastewater Division	451,000
DE-New Construction Flushing (Water Only)	148,099

UNACCOUNTED FOR NON-REVENUE	491,921,951
	5.38%

# Contaminant Information

The contaminant information provided on this page is included because it is possible for these contaminants to be found in AWWD's source water (the City of Everett). However, it is important to note that no dangerous levels of these contaminants have been found in your water. For more information, please refer to our Water Quality Results on pages 12 to 13.

**CRYPTOSPORIDIUM** is a one-celled intestinal parasite that, if ingested, may cause fever, diarrhea, and other gastrointestinal distress. It can be found in all of Washington's rivers, streams, and lakes. It comes from animal or human wastes deposited in the watershed. Cryptosporidium is resistant to chlorine but is removed by effective filtration and sedimentation treatment. It can also be inactivated by certain types of alternate disinfection processes such as ozonation and ultraviolet contractors. Past monitoring results suggest that Cryptosporidium is present at the source only occasionally and at very low concentrations.

**TREATMENT POLYMERS** are added during water treatment as organic polymer coagulants, which improve coagulation and filtration that remove particulates from the water. The particulates that are removed can include viruses, bacteria, and other disease-causing organisms. The U.S. EPA sets limits on the type and amount of polymer that a water system can add to the water. In addition to U.S. EPA limits, the State of Washington requires that all polymers used be safe for potable water use by an independent testing organization (NSF International). During treatment, water plant staff adds only NSF-approved polymers and the levels used are far below the safe limits set by the U.S. EPA.



## PERCHLORATE

In 2009, the U.S. EPA released a health advisory for perchlorate, an inorganic contaminant used in solid propellant for rockets, missiles, fireworks, and elsewhere (e.g., matches, flares). Perchlorate can interfere with human thyroid and metabolic functions. In mid-2009, the City of Everett's staff implemented a monthly monitoring perchlorate program. Through 2023, **no perchlorate** has been detected in Everett's drinking water.



# Terms & Abbreviations

The water quality monitoring results on the following pages can be difficult to interpret. We have used many acronyms so that the information fits into the tables. Definitions are provided here for you. If you have additional questions, please contact us at (425) 787-0250.

## **Action Level (AL):**

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

## **ccf:**

100 cubic feet of water; 748 gallons.

## **Disinfection By-Products (DBPs):**

Organic compounds resulting from the interaction of chlorine with natural organic matter in water supplies.

## **Maximum Contaminant Level Goal (MCLG):**

The maximum level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

## **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 possible using the best available treatment technologies.

## **Maximum Residual Disinfectant Level Goal (MRDLG):**

The level of drinking water disinfectant below which there is no known or expected health risk. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.



# Terms & Abbreviations

## **Maximum Residual Disinfectant Level (MRDL):**

The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of disinfectant is necessary for control of microbial contaminants.

## **Not Applicable (NA):**

Means that the U.S. EPA has not established MCLGs for these substances.

## **Parts Per Billion (ppb):**

One part of a particular contaminant is present for every billion parts of water.

## **Parts Per Million (ppm):**

One part of a particular contaminant is present for every million parts of water.

## **Treatment Technique:**

A required process intended to reduce the level of contaminant in drinking water.

## **How can I relate to PPMs and PPBs?**

What do parts per million (PPMs) and parts per billion (PPBs) mean in real life terms?

**PPM** = 3 drops in 42 gallons

**PPB** = 1 drop in 14,000 gallons



# Our 2023 Water Quality Results

## REGULATED CONTAMINANTS

Last year, your drinking water was tested for hundreds of possible contaminants. The contaminants that were detected are listed in the following tables. In reading this data, it is important to note that all these contaminants were present in amounts below the U.S. Environmental Protection Agency's (EPA's) allowable levels. To ensure that tap water is safe to drink, the U.S. EPA sets regulations that limit the amount of certain contaminants in the water provided by public water systems like Alderwood Water & Wastewater District.

EPA Regulations				Your Water Quality Results		
Parameter	Units	Ideal Level/Goal	Maximum Allowable (MCL)	Range or Other	Average Value or Highest Result	Comply?
Total Coliform Bacteria	% Positive	0	5% Positive per Month	0.0 - 0.7%	0.7%	Yes
Total coliform bacteria testing is used to monitor microbial quality in the water distribution system. Alderwood collects a minimum of 150 samples each month. Not more than 5% of the monthly total can be positive for total coliforms. One sample of the over 1,800 samples collected tested positive for coliform. A repeat sample from that single location did not detect coliform.						
Fluoride – Dental Health Additive	ppm	2	4	0.5 - 0.8	0.7	Yes
Fluoride is added to your water in carefully controlled levels for dental health.						
Residential Disinfectant	ppm	4.0 (MRDLG)	4.0 (MRDL)	0.5 – 1.2	0.7	Yes
Halo-Acetic Acids (5)	ppb	N/A	60	29.6 – 38.3	34.3*	Yes
Total Trihalomethanes	ppb	N/A	80	27.2 – 52.2	43.8*	Yes
Halo-Acetic acids (HAA5) and trihalomethanes form as by-products of the chlorination process that is used to kill or inactivate disease-causing microbes. The results for HAA5 and TTHM are from eight locations which are monitored to determine compliance with the current regulations. *The values reported are the highest running annual averages from the eight sites that were monitored in 2023.						
Turbidity	NTU	N/A	TT	100%	0.04	Yes
Turbidity is a measure of the amount of particulates in water expressed 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 in removing these particulates. The EPA turbidity limit is 0.3 NTU. In 2023, no filtered water turbidity results exceeded 0.3 NTU so the lowest percentage that met the EPA limit was 100%. The plant targets production of filtered water turbidities of 0.10 NTU or less.						

Detected Unregulated Contaminants				
EPA Regulations			Your Water Results	
Disinfection By-Products	Units	Ideal Level/Goal	Range	Average
Bromodichloro-methane	ppb	0	1.1 - 2.9	1.9
Chloroform (trichloromethane)	ppb	70	18.6 – 53.5	36.8
Dichloroacetic acid	ppb	0	4.4 - 17	11
Trichloroacetic acid	ppb	20	14.8 – 22.8	18.5
Monochloroacetic acid	ppb	0	0.0 - 3.1	0.8

These substances are individual disinfection by-products for which no MCL standard has been set, but which must be monitored to determine compliance with the U.S. EPA State 2 Disinfection By-Products Rule MCLs for Total Trihalomethanes and Halo-Acetic Acids (5).

Lead, Copper, and pH		EPA Regulations			Your Water Results (108 Homes Tested)		
Parameter	Major Source	Units	Ideal Level/Goal (MCLG)	Action Level (AL)	90 <sup>th</sup> % Level	Homes Exceeding the AL	Comply?
Lead	Plumbing, erosion of natural deposits	ppb	0	15	2	0	Yes
Copper	Plumbing, erosion of natural deposits	ppm	1.3	1.3	0.093	0	Yes
pH	Soda ash is added to reduce water corrosivity by increasing pH and Alkalinity	s.u.	Daily Avg. 7.6	Minimum Daily Avg. 7.4	Average 7.6	Minimum 7.1	Yes

U.S. EPA and state regulations require water systems to monitor for the presence of lead and copper at household taps every three years. Everett and many of the systems it supplies conduct lead and copper monitoring in their combined service area as a regional group. The above data was collected in 2021. The 90th % level is the highest obtained in 90% of the samples collected when the results are ranked in order from lowest to highest. In the past, the results for water tested before it enters household plumbing were even lower than the tap results. This indicates that there is virtually no lead or copper in the water, but household plumbing may contribute to the presence of lead and copper at the tap. The next testing is in 2024. The Washington State Dept. of Health requires Everett to operate the corrosion control treatment program at or above a minimum daily average pH of 7.4. pH is measured six times per day (once every four hours). The average daily pH cannot be below 7.4 for more than nine days every six months.

Voluntarily Monitored Substances – Everett Water Results			
Parameter	Units	Range Detected	Average Value
Alkalinity <sup>1,2</sup>	ppm	13 – 23.1	16.3
Aluminum <sup>1</sup>	ppm	0.006 - 0.036	0.02
Arsenic <sup>3</sup>	ppb	<0.1 - 0.2	0.1
Calcium Hardness <sup>1,2</sup>	ppm	7.6 - 9.2	8.1
pH	s.u.	7 - 9.8	8.1
Sodium <sup>3</sup>	ppm	5.78 – 6.57	6.14
Total Hardness <sup>1,2</sup>	ppm	9.9 - 15.7	12.2

<sup>1</sup>Results from samples collected from 26 locations in the Everett distribution system.

<sup>2</sup>Hardness and alkalinity units are in ppm as CaCO<sub>3</sub> (calcium carbonate).

<sup>3</sup>Arsenic and Sodium were monitored at the treatment plant effluent.



## UNREGULATED CONTAMINANT MONITORING RULE 5 (UCMR5)

Alderwood Water & Wastewater District collected quarterly samples at the entry point to the water distribution system according to the Fifth Unregulated Contaminant Rule (UCMR5). These samples were tested for 29 per – and polyfluoroalkyl substances (PFAS) and lithium. No PFAS or lithium were detected. The full results for the UCMR5 are listed in the table below.

PARAMETER	UNIT	MAXIMUM CONTAMINANT LEVEL	2023 RANGE OF RESULTS	2023 AVERAGE RESULTS
<b>UNREGULATED PARAMETERS</b>				
<b>Per-and Polyfluoroalkyl substances (PFAs)</b>				
11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ppb	No standard	–	< 0.005
1H, 1H, 2H, 2H-perfluorodecane sulfonic acid (8:2 FTS)	ppb	No standard	–	< 0.005
1H, 1H, 2H, 2H-perfluorohexane sulfonic acid (4:2 FTS)	ppb	No standard	–	< 0.003
1H, 1H, 2H, 2H-perfluorooctane sulfonic acid (6:2 FTS)	ppb	No standard	–	< 0.005
4,8-dioxa-3H-perfluorononanoic acid (ADONA)	ppb	No standard	–	< 0.003
9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9ClPF3ONS)	ppb	No standard	–	< 0.002
hexafluoropropylene oxide dimer acid (HFPO-DA) (GenX)	ppb	No standard	–	< 0.005
nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ppb	No standard	–	< 0.02
perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	ppb	No standard	–	< 0.003
perfluoro-3-methoxypropanoic acid (PFMPA)	ppb	No standard	–	< 0.004
perfluoro-4-methoxybutanoic acid (PFMBA)	ppb	No standard	–	< 0.004
perfluorobutanesulfonic acid (PFBS)	ppb	No standard	–	< 0.003
perfluorobutanoic acid (PFBA)	ppb	No standard	–	< 0.005
perfluorodecanoic acid (PFDA)	ppb	No standard	–	< 0.003
perfluorododecanoic acid (PFDoA)	ppb	No standard	–	< 0.003
perfluoroheptanesulfonic acid (PFHpS)	ppb	No standard	–	< 0.003
perfluoroheptanoic acid (PFHpA)	ppb	No standard	–	< 0.003
perfluorohexanesulfonic acid (PFHxS)	ppb	No standard	–	< 0.003
perfluorohexanoic acid (PFHxA)	ppb	No standard	–	< 0.003
perfluorononanoic acid (PFNA)	ppb	No standard	–	< 0.004
perfluorooctanesulfonic acid (PFOS)	ppb	No standard	–	< 0.004
perfluorooctanoic acid (PFOA)	ppb	No standard	–	< 0.004
perfluoropentanesulfonic acid (PFPeS)	ppb	No standard	–	< 0.004
perfluoropentanoic acid (PFPeA)	ppb	No standard	–	< 0.003
perfluoroundecanoic acid (PFUnA)	ppb	No standard	–	< 0.002
n-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ppb	No standard	–	< 0.004
n-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ppb	No standard	–	< 0.004
perfluorotetradecanoic acid (PFTA)	ppb	No standard	–	< 0.004
perfluorotridecanoic acid (PFTTrDA)	ppb	No standard	–	< 0.004
<b>Metals</b>				
Lithium	ppb	No standard	–	<9

**WOULD YOU LIKE TO PARTICIPATE IN DECISIONS ABOUT YOUR UTILITY?**

AWWD's Board of Commissioners holds regular business meetings on the first and third Mondays of the month at 5:00 PM. For a current schedule, including holiday adjustments, please visit [www.awwd.com](http://www.awwd.com).

**IMPORTANT CONTACT INFORMATION**

For more information on water quality topics, contact any of the following agencies:

AWWD Water Quality Division  
(425) 787-0250  
[www.awwd.com](http://www.awwd.com)

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

U.S. EPA Safe Drinking Water Hotline  
(800) 426-4791  
[www.epa.gov/water](http://www.epa.gov/water)



**ALDERWOOD WATER & WASTEWATER DISTRICT**  
3626 156<sup>th</sup> ST SW  
Lynnwood, WA 98087-5021