Importance of Fixing Leaks

Even small leaks add up to a lot of water over time. The chart at right shows how much water flows through a leak the size of the circle indicated. A pinprick sized hole means 3,600 gallons a month or 43,200 gallons a year. When this water flows through your meter, you are paying for water you are not using and the District is paying to pump this water - extra wear on the pumps and the cost of electricity to run the pump. Help preserve your water system and repair leaks on your service lines. We monitor the distribution system for leaks by visual inspection. Once the system is fully metered, we will be able to check the distribution system leakage on a monthly basis to determine if we have system leaks.

Water Loss in Gallons

Leak this Size	Loss Per Day	Loss Per Month	Leak the Size	Loss Per Day	Loss Per Month
.	120	3,600	●	6,640	199,520
•	300	10,800	●	6,964	209,520
•	693	20,790	●	8,424	252,720
•	1,200	36,000	●	9,585	296,640
•	1,920	57,600	●	11,324	339,720
•	3,095	92,880	●	12,750	361,600
•	4,295	128,880	●	14,952	448,560

How to Check Your Meter For Leaks

1. Locate your water meter. It is usually found in a small concrete or plastic box near the street.
2. If you need help locating your water meter, contact the P.U.D.
3. Turn off all water at the house and in the yard, including water-using appliances in the home.
4. Remember to shut off all indoor and outdoor faucets.
5. Check and record the current meter reading.
6. Wait at least 15 minutes before checking your meter again.
7. Remember, DO NOT use any water while you are waiting!
8. Read the water meter again. If the reading has changed, then you may have a leak that may require immediate attention.

Water Use Efficiency

Water use efficiency is a "proactive approach" to protect public health and water supplies. Droughts, climate change, growth demands and fewer granted water rights may lead to future long-term water disruptions due to declining water supplies. The District water use efficiency (WUE) program effectively plans and implements measures that can result in fewer water emergencies:

- Contributes to long-term water supply reliability and public health
- protection.
  Promotes good stewardship of the
- state's water resources.
  Ensures efficient operation and management of our water systems.

New WUE goals were approved in September 2024. To view all 6 Groups of WUE Goals please visit the districts website. https://mason-pud1.org/water-use-efficiency/ Under **Water Use Efficiency** click on Current Water Use Efficiency Goals.

The 2025 DSL for the Alderbrook Water System is: Total Water Produced (TP) - 78,891,000 gallons
Authorized Consumption (AC) – 72,418,520 gallons
DSL Volume – 6,472,480 gallons

Note: Gallons for the entire system. Full year of residential meters were read.

DSL Percentage – 8.2%

3-Year Rolling Average DSL – 8.6%

The approved 2024 goals for Group 1 10% or less DSL are:

Production:

- Maintain DSL Levels to 10% or less.

Consumption:

- Reduce summer peak daily demand by 1% per ERU in 6 years.
- Maintain DADD and summer peak daily demand.

Progress of Meeting Goals

Production:

- DSL has reduced 59% in 6 years
- DSL has been under 10% for the last 4 years.

Consumption:

- Reduced summer peak daily demand by 12% per ERU in the last 6 years.
- ADD has remained the same in the last 6 years.

Steps to Meet Goals

- Continue leak detection and repair.
- Conservation rate structure for all consumers.
- Leak repairs in August and October.

Well 2 & Reservoir on E Westwood Ln E

Water Use Efficiency Definitions

Authorized Consumption (AC): volume of water used by consumers as shown through meter readings, fire-fighting, system flushing, tank cleaning and street cleaning.

Average Daily Demand (ADD): average volume of water a typical single family home uses each day.

Distribution System Leakage (DSL): water lost from the system through leaking pipes, illegal water use, malfunctioning meters or meter reading errors. The volume difference of total water produced and authorized consumption (TP-AC).

Percent DSL=[(TP-AC)/TP]x100%

Total Water Produced (TP): volume of water pumped from a well, diverted from a surface water or purchased from another system.

Water Use Efficiency (WUE) Goal: a set target for water usage approved by the Board of Commissioners through the public process.

Water Use Efficiency Measure: actions set by the Board of Commissioners to reduce water loss and water demand approved through the public process.

Alderbrook Water System

2025 Annual Water Quality & Water Use Efficiency Report

PWSID #01050B

System Summary

Welcome to the 2025 Water Quality and Use Efficiency Report. This report is designed to inform you about the water and services the district delivers to you every day. Our goal is to provide you with a safe and dependable supply of drinking water. To comply with State and Federal water quality laws, 20 water quality tests were performed for your system in 2025.

Our water sources are Wells 1, 2 and 3. Well 1 draws water from an aquifer 292' deep at Jack Pine, Well 2 draws water from an aquifer 600' deep at Westwood, and Well 3 draws water from an aquifer 262' deep in the vicinity of the burn/gravel pit – please be careful with the debris you are dumping and make sure your yard waste has NO chemicals or fertilizers mixed with it. Chemicals and fertilizers in yard waste dumped at the burn pit could leach into the water table and contaminate your drinking water supply. All water services and sources are metered. All three reservoirs were cleaned and inspected in 2020. There are 519 residential connections on the system.

A Water System Plan is available from our office that provides more information about the Alderbrook Water Company— such as potential sources of contamination. Our wells have been rated by the Washington State Department of Health as moderate for Well 1, high for Well 2 and low for Well 3 for risk or susceptibility for contamination.

Approximately 300' of mainline was replaced on E Manzanita Ct this was old Asbestos Concrete mainline replaced with PVC. Construction of a new 200,000-gallon reservoir and installing 2,795' 8" PVC from our Manzanita Campus down E Manzanita Dr to the Alderbrook Development was installed. This project is for future use for the Alderbrook water system. Construction will be complete in 2026, there is not a time line for when the reservoir and mainline will be brought on-line. More information regarding this rating can be obtained by contacting PUD No. 1. The State Dept. of Health has Source Water Assessment Program (SWAP) data available online at: https://fortress.wa.gov/doh/swap/ which lists potential contamination for each Group A water source in the state. This is an interactive map.

Well 1 & Reservoir on E Jack Pine Ln

If you have any questions regarding this report, the water or PUD No. 1 please contact Brandy Milroy, Water Resource Manager at 360-877-5249 or brandym@mason-pud1.org. Also, don't forget PUD 1 board meetings are the 2nd and 4th Tuesdays of each month at our office in Potlatch (1 mile south of Hoodsport, WA) at 1 pm. The public is welcome to our meetings.

Health Effects of Contaminates

Nitrates: As a precaution we always notify physicians and health care providers in the area if there is ever a higher than normal level of nitrates in the water supply. Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and "blue baby" syndrome. Nitrate levels may rise quickly for short periods of time because of rain fall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

Total Coliform: Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present.

Arsenic: YYour drinking water currently meets EPA's standard for arsenic. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Copper: 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.

Lead: 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 with excess lead over many years could develop kidney problems or high blood pressure.

Manganese: Manganese is known to occur naturally in well water due to the type of rock a well may be drilled into. Concentrations above the national guidelines may contribute to problems with taste, odor and color of the water coming out of your tap.

Chloride, Sodium and Salt Water Intrusion: Chloride and sodium levels rise when a well begins to pump from an aquifer mixing with sea water.

Turbidity: Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

Reason for Reporting Contaminants

The contaminant results table provided lists the drinking water contaminants we detected that are applicable for the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in the table is from testing done in the calendar year of the report. The EPA or the state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change.

Water Quality Summary - Alderbrook Water System PWSID #01050B

Contaminant	Violation Yes/No	Level Detected (range)	Unit Measurement	MCLG	MCL	Typical Source
Microbiological Contaminants						
Total Coliform Bacteria	NO	0	Present or Absent	0	One Positive monthly sample	Naturally present in the environment
Fecal Coliform and E.coli	NO	ND	Present or Absent	0	One Positive monthly sample	Human and animal fecal waste
Inorganic Contaminants						
Nitrate (as Nitrogen) (03/12/2025) Well#2	NO	0.543	mg/L	10	10	Runoff from fertilizer use; leaching from septic tanks, erosion of natural deposits
Copper (08/3/2023) Distribution Samples (10)	NO	Max 0.14 (<0.02-0.14) 90%: < 0.08	ppb	15	AL=1.3	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (08/3/2023) Distribution Samples (10)	NO	Max 0.012 (<0.001-0.012) 90%: < 0.001	ppb	15	AL=15	Corrosion of household plumbing systems; Erosion of natural deposits
Secondary Contaminants						
Iron (08/07/2020) Well #1	NO	<0.1	ppm	300	300	Secondary contaminant that causes discoloration and bad taste; naturally present
Iron (02/09/2017) Well #2	NO	<0.4	ppm	300	300	Secondary contaminant that causes discoloration and bad taste; naturally present
Chloride (02/21/2018) Well #1	NO	1.6	ppm	250	250	Secondary contaminant; salt water intrusion
Chloride (02/21/2018) Well #2	NO	2.4	ppm	250	250	Secondary contaminant; salt water intrusion
Chloride (02/21/2018) Well #3	NO	1.8	ppm	250	250	Secondary contaminant; salt water intrusion
Turbidity (02/09/2017) Well #1	NO	0.1	NTU	N/A	SRL = 0.1 Trigger =1	Soil runoff
Turbidity (02/09/2017) Well #2	NO	0.1	NTU	N/A	SRL = 0.1 Trigger =1	Soil runoff
Turbidity (02/09/2017) Well #3	NO	0.2	NTU	N/A	SRL = 0.1 Trigger =1	Soil runoff

What You Should Know About Water Quality

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. 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. 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).

Maximum Contaminant Levels (MCLs) are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL for a **lifetime** to have a **one-in-a-million** chance of having the described health effect.

The sources of drinking water (both tap and bottled) 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, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity.

In the water quality table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms, we have provided the following definitions:

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

Lead and Copper 90th Percentile - out of every 10 homes sampled, 9 were at or below this level.

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 feasible using the best available treatment technology.

Maximum Contaminant Level Goal (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 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.

Maximum Residual Disinfectant Level Goal (MRDLG) - 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.

N/A - not applicable.

Nephelometric Turbidity Unit (NTU) - a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Non-Detects (ND) - Laboratory analysis indicates that the contaminant is not present or not detected.

Parts per Billion (ppb) or micrograms per Liter (µg/l) - one part per billion.

Parts per Million (ppm) or Milligrams per Liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in $10,000.

Secondary Maximum Contaminant Level (SMCL) - these standards are developed to protect the aesthetic qualities of drinking water and are not health based.

State Reporting Level (SRL) - the level of contamination in which laboratory must report to the state.

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

< - Means 'less than.'

Reservoir 3 & Booster Station on E Vine Maple Ln

State Waivers

Waivers mean no testing or modified testing frequency for a specified contaminant is required for a set period of time. The Washington State Department of Health reduced the monitoring requirements for Well 1 & 3 for SOC (pesticides) and Soil Fumigants because the source is not at risk of contamination and well 2 SOC (pesticides). The last sample collected for these contaminants was taken on 06/11/2009 and was found to meet all applicable standards.

Inorganic Contaminants: 1 sample every 9 years;
Synthetic Organic Contaminants (herbicides): 1 sample every 9 years;
Synthetic Organic Contaminants (pesticides): no samples through December 2025;
Volatile Organic Contaminants: 1 sample every 6 years;
Asbestos: no samples through 2027.
Per-and Polyfluoroalkyl Substances (PFAS): sample required for all 3 wells in 2025.

Unregulated Contaminants Statement:

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to help EPA determine their occurrence in drinking water and potential need for future regulation.

Secondary Contaminants Statement

Secondary contaminant standards are developed to protect the aesthetic (taste, color and odor) qualities of drinking water and are not health based. Secondary contaminants include iron, manganese, silver, chloride, sulfate and zinc. Exceeding the MCL for any of these secondary contaminants does not mean the water system is in violation of the state or federal standard.

Washington State Office of Drinking Water Lead Statement

In Washington State, lead in drinking water comes primarily from materials and components used in household plumbing and service lines. Mason PUD No. 1 is responsible for providing high quality water, but cannot control the variety of materials used in plumbing components. Elevated levels of lead can cause serious health problems, especially in pregnant women and young children.

To help reduce potential exposure to lead: for any drinking water tap that has not been used for 6 hours or more, flush water for thirty (30) seconds to two (2) minutes through the tap until the water is noticeably colder before using for drinking or cooking. You can use the flushed water for watering plants, washing dishes or general cleaning. Only use water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is likely to contain higher levels of lead. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water is available from EPA's Safe Drinking Water Hotline at 1-800-426-4791 or online at http://www.epa.gov/safewater/lead.

Contractor installing mainline on E Manzanita Dr

Tap Water and Bottled Water Safety

To ensure that tap water is safe to drink, the Washington State Board of Health and/or EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and the Washington Department of Agriculture regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

How to Clear Chlorine from Tap Water

Occasionally we are required to chlorinate the distribution system. When that occurs and you prefer not to drink chlorinated water, fill a pitcher with tap water and leave it either on the counter or in the fridge over night. The chlorine will dissipate and you should not taste it in your drinking water from the pitcher. A filter on your faucet or in a pitcher may, also, be used to remove chlorine.

Contaminants That May Be Present In Source Water

- **Microbial contaminants,** such as viruses, parasites and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- **Inorganic contaminants,** such as salts and metals, which can be occur naturally or result from urban storm water 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.
- **Radioactive contaminants** which can occur naturally or result from oil and gas production and mining activities.
- **Organic chemical contaminants**, including synthetic and volatile chemicals, which are by-products of industrial processes and petroleum production. They can also come from gas stations, urban storm water runoff and septic systems.