

## Annual Water Newsletter

2022

### New Water Tank for Quilcene

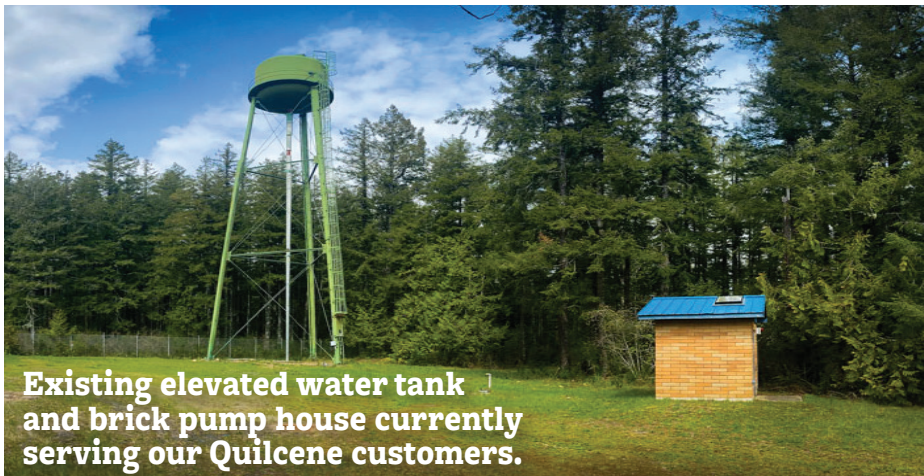
The Quilcene water system is receiving a big upgrade in 2023. The existing 30,000-gallon elevated steel tank, built in 1984 (pictured), lacks both the ability to provide adequate fire flow or allow for additional customers. The existing tank currently serves 40 Quilcene area connections. The new tank will be made of concrete, is more than triple the size, and will provide more water connections for future customers.

The new tank will also have improved seismic reinforcement, a new booster pump station, and a back-up generator. The tank's increased capacity and improved fire flow (up to 1,000gpm) not only ensures more water for firefighting, but helps reduce insurance rates for businesses on the system.

The Quilcene water tank project has been in development since 2011. Early funding for project engineering was provided by a pair of grants from Jefferson County's Public Infrastructure Fund.

After a competitive bidding process, the contract for the tank construction was awarded to Rognlin's Inc., of Aberdeen, WA. Work begins this fall and will continue through the spring of 2023.

Tank removal and reconstruction funding has been made possible through a loan from the WA State Public Works Board.



**Existing elevated water tank and brick pump house currently serving our Quilcene customers.**

### Consumer Confidence Reports Included

In accordance with Federal, State or local laws, our staff routinely monitors for contaminants in your drinking water

The report included with this newsletter is provided to educate consumers about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards.

In 2021, overall drinking water quality met all drinking water standards.

We encourage you to take a few moments and review the enclosed results of water quality monitoring from January 1 to December 31, 2021.

We take pride in keeping you informed about the quality of your water. We welcome your questions, concerns, and observations.

# JEFFERSON PUD WATER SYSTEMS BY THE NUMBERS

**1981** Year PUD  
est. its first  
water system  
(Gardiner LUD#1)

**4,500** Number  
of water  
customers

**955,564**  
Approximate gallons-per-  
day of water produced from  
Jefferson PUD wells for our  
customers

Number of GROUP A  
water systems served

**9**

**GROUP A**  
Are community water  
systems serving at least 25  
customers for 60 or more  
days per year

**4** Number of GROUP B  
water systems served

**GROUP B**  
Are water systems serving  
less than 15 connections or  
less than 25 people

**16** Number of active  
wells maintained  
by the PUD

**150+**  
Years of combined experience  
in the water industry among  
our personnel

## Water Use Efficiency Report

Jefferson County PUD is required to create an annual Water Use Efficiency Report for each of our water systems. To comply with this State law, Jefferson County PUD's 2020-2025 water use efficiency goals are as follows:

### Supply Side

- Maintain distribution systems leak (DSL) percentage at or below 10 percent of system production as calculated on a 3-year average.
- Water systems not at or below DSL of 10 percent, reduce DSL by 10 percent in the next 3 years (Note: Baseline 3-year average from 2019, 2018 & 2017).
- Maintain water production at or below the 3-year mean average in non-expanding systems.

### Demand Side

- Maintain gallons per day per connection at 3-year mean average by route or system.

For the majority of our 9 Group A water system's the customer average daily consumption (Demand Side Goal) was above the 3-year average. Likely factors were the historic early summer heatwave the effects of which remained over the course of the summer months, and customers working from or staying home due to COVID-19.

For the supply side goals the distribution system leakages (DSL) for our Group A systems did not significantly change from the previous years. Seven (7) of our Group A water systems are at or below the 3-year state requirement of 10% leakage and two (2) systems (Coyle and Triton Cove) are above. The majority of our water systems produced more water in 2021 due to the summer heatwave and higher customer demand in general.

Individual 2021 Water Use Efficiency Reports can be found on our website at <https://www.jeffpud.org/consumer-confidence-reports/>

To receive a print copy by mail, call customer service at (360) 385-5800 Mon–Fri, 9am–4:30pm

## Our PUD Water Team



PUD WATER CREW (Left to Right): Jose Escalera, Tom Brooke, Jerry Rubert, Eric Storey, Randy Calkins. Not pictured: Doug Reeder, Samantha Harper, Kara Rogers, and Bill Graham.

## 2022 System Maintenance Goals

Our capital project goal set a benchmark to change one pump and motor per year within our water systems. In 2022, PUD water crews have removed and replaced four aging well pumps and motors, with plans to remove and replace one more. Also slated is the removal and replacement of two wellhouse structures. What does this mean for our customers?

Bottom line: reliable water service.

The water to your home or business relies on

the implementing maintenance activities within our water systems.

In 2022, the PUD awarded a service contract to a Washougal-based cleaning and inspection diving company. They will inspect 5 of our reservoirs. System cleaning will occur in June 2022 and will not disrupt service.

These are just a few of many projects your PUD water system crews are doing to ensure the highest quality water goes to your residence.

## Water in a Rainshadow World

### Jefferson County ranks as one of the driest coastal communities in the Lower 48.

Jefferson County as a whole has the greatest range of precipitation of any county in Washington State and possibly the greatest in the contiguous United States. Annual precipitation ranges from just 19 inches in Port Townsend, to more than 260 inches at Mount Olympus, with

most of the water falling where people are not.

The massive swing in rainfall totals is unique to our geography, with much of Jefferson County being

considered “coastal” and sitting firmly within a natural rainshadow of the Olympic Mountains. Our rainshadow is drier than virtually any community east of the Mississippi River and any coastal community north of southern California.

Such arid climate creates a unique challenge for Jefferson PUD water department in balancing water supply year-round.

Unlike most water utilities around the greater-Puget Sound area and elsewhere on the Peninsula, Jefferson PUD’s water is not dependent upon mountain snowpack for their water supply.

Our water is, instead,

underground. About a hundred feet below ground, in subsurface reservoirs. These reservoirs, also known as aquifers, provide a continuous water source despite our dry climate.

The exact sizes of these aquifers are unknown, though extensive studies by the US Geological Survey and other engineering firms have provided insights into verifying their extent and behavior, particularly in the Chimacum basin. The Chimacum basin receives extra attention primarily because of the relationship Chimacum aquifer ground water levels may have on stream flows and local salmon.

The Sparling well and treatment plant is the unofficial headquarters of the PUD water department. It’s located near the corner of Rhody Drive and Kennedy Road but is not open to the public. The Sparling well draws from a very productive aquifer known as the ‘Vashon advance outwash formation. As the main source in our Quimper Water system, water from the Sparling wells serve PUD customers from Kala Point to

Cape George, and from Fort Flagler to Farm’s Reach Café.

PUD staff track vertical water movement throughout the year to monitor water supply levels from peak wet season to peak dry season. The Sparling well fluctuates between 8 and 10 vertical feet annually. The Sparling well is the PUD’s most productive water source, pumping an average of 500,000 gallons of water each day.

### WASHINGTON RAINFALL AVERAGES

Port Townsend: 23”  
Seattle: 37”  
Olympia: 53”  
Forks: 110”



Sparling well treatment plant near Hadlock

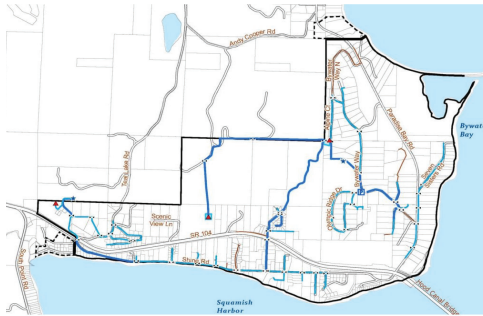
# PUD Water Department News Briefs

## Bywater Bay Water System Extension

This fall Jefferson PUD will begin managing the Shine Plat water service as part of the Bywater Bay water system.

The water line extension project was started through a Local Utility District process and will add 26 new water connections to the 248 connections on the Bywater Bay water system.

Bywater Bay is located near the Hood Canal Bridge and operates 2 active wells. As part of the line extension, the PUD will be replacing existing lines with higher quality materials to reduce leaks and provide a better source water. Project design and construction is funded through the Washington State Dept. of Health's Drinking Water State Revolving Fund (DWSRF) loan program. The project is currently out to advertisement for construction services.



## PUD Working with Brinnon Water Systems

Representatives from 3 private water systems in the Brinnon area approached the PUD about potentially owning/operating their water systems. The PUD is partnering with Jefferson County Environmental Health to look at the feasibility of consolidating these water systems, as each system is unique and in need of further evaluation.

## Stay Informed with PUD Public Meetings

Regular and special meetings of PUD Commissioners are open to the public. Up to date information about all upcoming meetings can be found in the calendar section of our website. Past meeting materials and recordings can be found in the Meeting Archive section under the Records/Data tab.

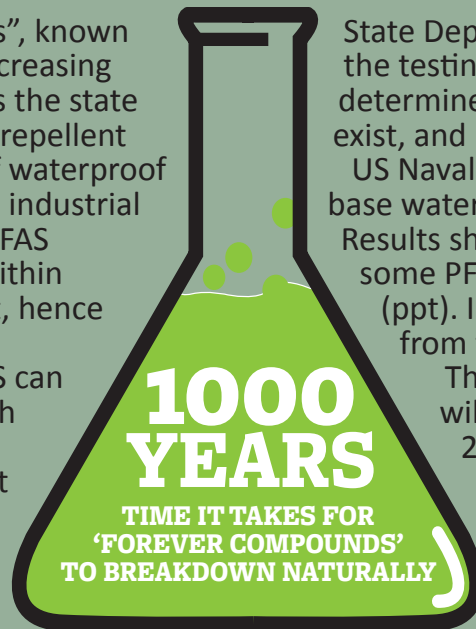
Regular meetings are held the first and third Tuesday of every month at 3pm.

Meetings are currently held online over Zoom. Login instructions and any meeting format changes will be posted on [jeffpud.org](http://jeffpud.org)

## PUD Now Testing for 'Forever Compounds' Results Pending on New Water Testing

"Per-polyfluoroalkyl substances", known as PFAS, are being detected in increasing numbers of water systems across the state and nation. Used for their water repellent properties in the manufacture of waterproof clothing and cookware as well as industrial coatings and fire suppressants, PFAS chemicals degrade very slowly within water, soils and the environment, hence the name "forever compound."

Even in minute quantities, PFAS can create adverse health effects with prolonged exposure, though the EPA has not yet determined what level of PFAS concentration in water supplies require treatment. The Washington



State Department of Health has funded the testing of water system sources to determine where high concentrations exist, and if treatment is warranted.

US Naval Magazine Indian Island tested base water samples for PFAS last year. Results showed minute concentrations of some PFAS chemicals in parts per trillion (ppt). Indian Island receives its water from the PUD's Quimper system.

The PUD water source testing will be conducted throughout 2022 and PFAS samplings data will be available in the annual consumer confidence reports and on [www.jeffpud.org](http://www.jeffpud.org).