



# Water Tap

## Washington's Drinking Water Newsletter

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Summer 2017

## PFAS Turn Up in Wells Across Washington

**F**AIRCHILD AIR FORCE BASE found it in wells in Spokane County. Naval Air Station Whidbey Island found it near its base in Island County. The City of Issaquah has it in one of its wells. And it's been detected on and near Joint Base Lewis McChord.

"It" refers to chemical compounds called perfluoroalkyl substances, or PFAS. The compounds have been used in many products since the 1950s because they repel stains, oil, and water, and they are effective at suppressing petroleum fires.

Until recent years, PFAS were used in firefighting foam commonly used on military air runways and at firefighter training facilities. It is still found in everyday products, such as food wrappers, nonstick pans and carpeting.

Although the U.S. Environmental Protection Agency lists PFAS as unregulated contaminants, there are enough concerns about these chemicals that the agency established a lifetime health advisory level of 70 parts per trillion (ppt) last year for two PFAS compounds: perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS).

The health advisory level provides protection against adverse health effects, even over a lifetime of exposure. Although the advisory level is not enforceable, EPA recommends that people not drink water with PFOS and/or PFOA above 70 ppt.

Exposure comes mostly through food, dust, water and air. The compounds aren't easily absorbed by skin contact or inhalation while bathing. Unfortunately,

they break down slowly and last a long time in the body and environment. While more research is needed, possible health effects in people include increased cholesterol levels; interference with fetus/child growth, learning and behavior; disrupting natural hormones; decreased fertility; weakened immune system; and increased cancer risk (inconclusive).

The Department of Health generally recommends against having blood tested for PFAS because there is no way to link a given level in blood to any specific health effect. But of those tested in the United States, 98 percent have PFAS in their blood.

As part of EPA's Unregulated Contaminants Monitoring Rule 3, all water systems serving 10,000 or more people and some smaller water systems tested for PFAS in 2013-15. While detections weren't widespread, some areas of the country found clusters of water sources with significant detections. Most contamination found so far is in areas where PFAS were manufactured or where firefighting foams were used, such as military sites and airports.

What does all this mean for Washington's water systems? And how can you protect your customers? If your water system wasn't required to do sampling in 2013-15 and your water sources are within one mile of an airport or military site, you may want to test now.

The Office of Drinking Water budgeted \$150,000 in the coming fiscal year to help water systems that want to test for PFAS in their drinking water supply. We will pay the full cost of lab analysis.

Watch for more information about this free sampling project later this year.

If you find PFAS, or have sampling questions, contact your Office of Drinking Water regional source monitoring program staff. If your water has consistent levels of PFOA and/or PFOS above EPA's lifetime health advisory level, we can offer guidance on treatment options for removing the PFAS. We generally recommend granular activated carbon filtration. The effectiveness of the treatment will depend on the chemical composition of your water and other factors.

We're also working with Department of Ecology on a statewide chemical action plan for PFAS. An advisory committee began meeting in winter 2016 and will continue to help collect information and identify solutions. The draft plan is set to be finalized late this year.

*Image: Firefighting equipment on the concrete at West Plains Fire Academy during a 2014 training with airmen from Fairchild Air Force Base. Courtesy U.S. Air Force photo/Staff Sgt. Veronica Montes*

**"The Office of Drinking Water budgeted \$150,000 to help water systems test for PFAS in their drinking water supply. We will pay the full cost of lab analysis."**

# EPA Shows Up at Stevens PUD's Door!

LUCY EDMONDSON, director of the Environmental Protection Agency's (EPA) Operations Office in Lacey, Washington, traveled to Loon Lake recently to present the Stevens Public Utility District (PUD) with the 2016 EPA Region 10 Drinking Water State Revolving Fund WATERS award. The award recognizes the PUD's excellent work on the arsenic remediation project at their Mission Ridge Water System in northwestern Stevens County.

This project joins four other WATERS award winners in EPA Region 10, and was the only nominee for the State of Washington.

The main well of the 39-connection Mission Ridge Water System had arsenic readings, at one time, of up to 21 parts per billion (ppb), more than twice the maximum contaminant level (MCL) of 10 ppb.

Former General Manager and Engineer Dick Price (retired), and PUD staff spent countless hours testing existing private wells in hopes of purchasing them to connect to the system, purchasing property and drilling an additional well for the system, and even trying to develop the other existing wells used for the Mission Ridge system. But none of these avenues remediated the looming arsenic problem that was upon this small water system until... the Stevens Public Utility District negotiated an agreement with the City of Kettle Falls to install a master meter



Lucy Edmondson (left), presents the WATERS Award to PUD staff Wade Carpenter, Charisse Willis and Dave Sellers on April 27.

from the city's water system to distribute water to the Mission Ridge Water System.

The utility installed 7,835 feet of HDPE pipe (mostly installed by trenching because of culturally sensitive areas), meters and vaults, a new booster station, solenoid valve and pump house piping changes. Then came environmental studies, an archaeological and cultural survey and an agreement with the Confederated Tribes of the Colville Reservation to curate any archeological findings. Finally, after many hours of engineer-

ing and planning, the project was completed last summer.

The Stevens PUD resolved the arsenic issue and reduced the arsenic readings by almost 75 percent to below the MCL.

Funding for this project included a grant and loan from the Department of Health.

EPA recognized Dick Price, former Stevens PUD engineer and general manager, the PUD staff, and the City of Kettle Falls for seeing this project to fruition. *Water Tap* congratulates Stevens PUD on a job well done!

## PFAS Scare a Reminder of the Value of Water

Garin Schrieve, Director of the Office of Drinking Water

SAFE AND RELIABLE DRINKING WATER is the lifeblood of our communities, yet few think about its importance until they have to go without.

Recently, the city of Airway Heights faced that situation first-hand with the discovery of perfluoroalkyl substances or "PFAS" in their water supply. The contamination is assumed to have come from firefighting foams used at nearby Fairchild Airforce Base.

While the city wasn't responsible for the contamination, they scrambled to warn their customers not to drink the water. They provided bottled water, opened an intertie with the City of Spokane, flushed the water lines and conducted follow-up testing to verify that the water is now safe. This took many days and the impact to businesses and the public was significant.

Thankfully, Airway Heights had alternate supply options and partners to help get their community back online quickly. Other communities might not be so lucky.

At a time when most people's cable or cell phone bills dwarf their water bill, events like those in Airway Heights remind us of the value of water—and of the importance of the work the drinking water community does every day to protect source water, maintain infrastructure and conduct robust monitoring programs.

To underscore the importance of this work, the Office of Drinking Water recently updated its vision statement: "The people of Washington understand the value of safe and reliable drinking water to healthy communities and a vibrant economy. As a result, our public water systems have the technical, managerial and financial capacity they need to provide it, now

and for generations to come."

The foundation of this vision is a public recognition of the value of safe and reliable drinking water.

We as a drinking water community can get better about telling and retelling the story of the value of water. We can get better about working together to coordinate messages and at amplifying and sustaining those messages using social media, the public health system and strong partnerships.

We at the Office of Drinking water look forward to working with Washington's drinking water community to help build that foundation.



ODW Director Garin Schrieve

# New Waterworks Renewals Offered Online

By Peggy Barton, Director of Washington Certification Services

**T**HE WATERWORKS Operator Certification Program and its partners at Green River College's Washington Certification Services are updating the annual renewal process, starting with 2018 certificate renewals.

Beginning in November 2017, eligible certified waterworks operators will receive their 2018 renewal notice by email only. Operators must make renewal payments online by debit or credit card. We will not accept payment by check or money order.

For information about online renewal for operators, visit Washington Certification Services at [www.wacertservices.org/WaterRenewal](http://www.wacertservices.org/WaterRenewal). The payment log-in will be activated in November of 2017.

For instructions on updating email or postal mailing addresses, operators can visit [www.doh.wa.gov/OpCert](http://www.doh.wa.gov/OpCert).

## Benefits for Operators

- ◆ Email reminders if the renewal fee has not been paid yet.
- ◆ Opportunity to pay immediately using the link in the electronic renewal notice.
- ◆ Ability to print a receipt immediately after payment.
- ◆ Opportunity to avoid late fees by renewing early.
- ◆ A payment confirmation sent by email.
- ◆ A validation card mailed quickly, usually within 10 business days of payment.

## Benefits for Employers

Employers who pay their operators' annual renewal fee can also use the online system. Benefits include:

- ◆ No need to wait for operators to provide you with their hard-copy renewal notice.

- ◆ Ability to log-in to pay using the operator's certification number and name.
- ◆ Opportunity to avoid late fees by renewing early.
- ◆ Eliminating processing of costly checks by using the company credit card.
- ◆ Both a printed and emailed receipt of payment to reconcile your credit card statement.
- ◆ Online eligibility screening to avoid duplication of payments.

We are excited about improvements we are making in the Waterworks Operator Certification Program and the opportunity to provide operators with an online renewal process. Certified waterworks operators and public water systems should watch their email this fall for more information about the new online renewal process.

If you have questions, call Peggy Barton at 253-288-3357.

## Join Our Next Advisory Group Meeting

The next Drinking Water Advisory Group (DWAG) meeting is Monday, September 11.

We established the advisory group because we want to hear about the topics that matter most to you. DWAG meets four times a year: the first Monday of

March and June, the second Monday of September, and the first Monday of December. Meetings start at 9 a.m. and typically end around noon.

You may attend the September meeting at any ODW office in Tumwater, Kent, or Spokane. Visit the DWAG

webpage at [www.doh.wa.gov/DWAG](http://www.doh.wa.gov/DWAG) to learn more and sign up to receive email announcements.

We invite you to send your ideas and comments to [dwinfo@doh.wa.gov](mailto:dwinfo@doh.wa.gov). Thank you for helping to keep Washington drinking water safe and reliable!

## Congratulations TOP Performers!

**R**ESULTS ARE IN for our surface water Treatment Optimization Program (TOP) awards. Turbidity monitoring data show that our conventional and direct filtration surface water treatment plants continue to perform above regulatory standards—and provide better public health protection.

Four systems achieved 16 consecutive years of optimization in 2016, earning platinum awards! We also award bronze, silver, and gold certificates to systems the first time they meet the turbidity goals for three, five, and 10 consecutive years, respectively. This year, three systems earned silver awards: Castle Rock Municipal Water, Town of Metaline Falls and Rosario Water System.

The Chehalis Water Department earned a bronze award. Congratulations!

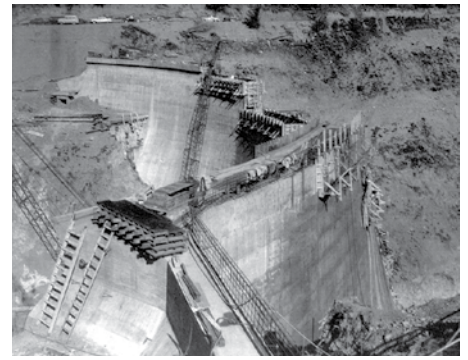
The filtered water turbidity goals we adopted for these systems are not regulatory. Instead, we encourage systems to achieve optimal water quality using existing facilities, which provides a larger margin of safety. The performance of rapid rate filters for turbidity removal is a key element in protecting consumers from microbial contaminants and maximizing public health.

## For more information

To learn more about TOP and treatment optimization, visit Performance of Rapid Rate Filtration Plants in Washington at: [www.doh.wa.gov/TOP](http://www.doh.wa.gov/TOP).

<b>Platinum Award</b>
Arlington Water Department (2001-2016)
Lake Whatcom Water & Sewer District - South Shore W.S. (2001-2016)
Pasco Water Department (2001-2016)
Skagit County PUD #1 - Judy Reservoir System (2001-2016)
<b>Gold Award</b>
City of Kelso (2006-2016)
<b>Silver Award</b>
City of Bellingham (2011-2016)
Castle Rock Municipal Water (2012-2016)
Eastsound Water Users Association (2011-2016)
City of Everett Department of Public Works (2009-2016)
Island View LUD (2010-2016)
Lummi Island Scenic Estates Community Club (2008-2016)
Town of Metaline Falls (2012-2016)
River Bend Water System (2009-2016)
Rosario Water System (2012-2016)
Ryderwood Improvement & Service Association (2008-2016)
City of Woodland (2009-2016)
City of Yakima Water Division (2010-2016)
<b>Bronze Award</b>
Chehalis Water Department (2014-2016)
Olympic View Water & Sewer District (2013-2016)
City of Snohomish (2013-2016)





# Bremerton Celebrates a Banner Year in 2017

**2**017 IS SHAPING UP to be a very good year for the City of Bremerton Water Utility. The city began the year by celebrating the 100<sup>th</sup> anniversary of its water system with the theme: “From a Visionary Past to an Inspired Future: 100 Years of Bremerton Water.”

In March, the year got even sweeter with news that the utility would receive a 2017 Exemplary Source Water Protection Award from the American Water Works Association (AWWA) this summer. The award recognizes organizations in North America that have exemplary source water protection programs.

Bremerton’s water managers knew from the beginning that protecting water at its source is the most responsible and economical approach to delivering safe and reliable drinking water. They purchased water resource lands long before they used them for a water supply.

“Because Bremerton’s water managers recognized the importance of source water protection early on, the city has been able to comply with increasing regulation with a few system upgrades,” said Bremerton Water Resources Manager Kathleen Cahall. “Owning and protecting the Union River watershed is one of the most important investments the city made to ensure the vitality of its community.”

A new water history exhibit at the Kitsap History Museum, 280 4<sup>th</sup> Street, in downtown Bremerton celebrates that achievement. The exhibit praises the visionary accomplishments of the water system founders and ties together the roles the water system and its largest customer, the Puget Sound Naval Shipyard, play in the city’s rich history.

“One hundred years into its operation, we celebrate the foresight of water professionals who built a drinking water system anchored by Casad Dam and delivered by a complex network of pipes, pump stations and reservoirs to serve a growing city through the war years and beyond,” said Bremerton Mayor Patty Lent. “Continued conscientious operation, maintenance and watershed protection ensure excellent quality at the tap. We are inspired by the past to be responsible water system stewards, and we look forward to the next century of service to our customers.”

The exhibit will be on display through September of 2017.

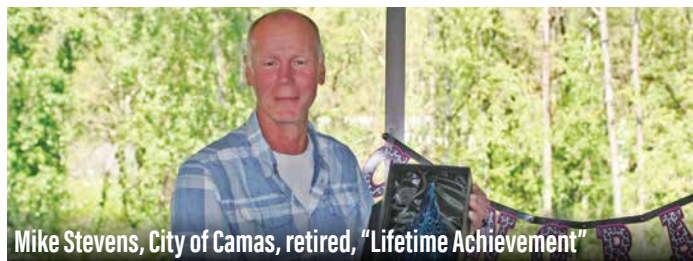
*Above, clockwise: Casad Dam, ca. 2010; Casad Dam under construction before its 1957 opening; the original Bremerton Water Works Pumping Station; and the Bremerton Water Works School, ca. 1954. All photos courtesy City of Bremerton.*



# Drinking Water Week Awards Go to (drumroll) ...

**T**HE OFFICE OF DRINKING WATER (ODW) celebrates National Drinking Water Week every year during the first full week of May. Governor Jay Inslee issued a proclamation recognizing the importance of a healthy water infrastructure to public health, economic growth and the well-being of future generations.

ODW recognized six operators and water systems who did an outstanding job of providing safe and reliable drinking water to their customers. Award winners were nominated by their peers, stakeholders and others in the industry.



Mike Stevens, City of Camas, retired, "Lifetime Achievement"

Mike retired from the City of Camas after working his way up to water supervisor. He understands the value of safe, reliable drinking water and always worked toward the goal of a healthy water infrastructure by gaining knowledge and collaborating with others.

He is valued throughout the industry, by regulators and colleagues alike, for his insight, experience and integrity. We congratulate Mike on his retirement. He will be greatly missed.



Greater Bar Water District, "Perseverance Under Adversity"

The Greater Bar Water District consolidated other smaller water systems during a major construction project. Doing so eliminated a problematic, failed water system that had been on a health advisory for over a decade.

By consolidating and obtaining permits to expand, the district put public health first, boosting the economic benefits to the communities they serve.



Bill Maxwell, City of Pasco, "Operator of the Year"

Bill (*second from left*), an operator and water quality specialist with the City of Pasco, is a great role model and educator who is committed to expertise in water treatment and quality. He uses his knowledge and skill to help other water systems and further the education and growth of other operators and field staff.

He also has coordinated school field trips and successfully engaged second-graders, getting them excited about the importance of water treatment, which is no small feat.



Betty Vance, Valley Water District, retired, "Above and Beyond"

Before she retired, Betty Vance was instrumental in forming the Valley Water District near Puyallup and consolidating various smaller water systems.

She excelled in leadership and communicating the value of a healthy water infrastructure and the need for sound financial and managerial plans. Betty used her educational and negotiating skills to work with ODW in applying successful business models to centralize the water management of smaller systems.



Wayne Braun, Enterprise Estates, "Grace Under Pressure"

We honored Wayne, for his dedication in serving the Enterprise Estates water system in Ferndale. He has worked for over two decades providing safe and reliable drinking water to his customers and neighbors.

During a windstorm that knocked out power to the water system's well, Wayne monitored the generator night and day and kept the water flowing, even though trees were falling on the lots adjacent to the well. He continues to maintain his waterworks certification in order to serve his community.



Paul Reeb, City of Kelso, retired, "Lifetime Achievement"

Paul Reeb (*center*) retired from the City of Kelso after a successful career spanning 40 years. Under his leadership, the city won water optimization awards for each of the past 10 years, which earned the city a Treatment Optimization Program Gold Award. For three years running, the Kelso water plant has been the state's top-ranked surface water plant.

During his tenure, Paul went above and beyond to ensure safe and reliable drinking water. He is respected for his honesty, integrity and commitment to public health and will be greatly missed.



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## A Win-Win-Win Situation for Liberty Lake

**L**IBERTY LAKE SEWER AND WATER DISTRICT proved to be a very good neighbor to the East Side Liberty Lake Improvement Club. Late last year, the Office of Drinking Water approved East Side for a Drinking Water State Revolving Fund loan to finance replacement of some severely undersized piping. The sewer and water district, which provided operations and maintenance services to East Side, pointed out that consolidation would result in 50 percent loan forgiveness and offered to sponsor a consolidation loan.

East Side jumped at the offer.

Both systems quickly accomplished the ownership transfer. Liberty Lake changed the emergency intertie to a permanent

supply in March. East Side's wells are now transferred to "emergency" status only.

Best of all, their customers will have better water pressure and fire flow as well as a lower monthly bill!

"The district appreciates the long-standing working relationship with the Eastside Liberty Lake Improvement Club, in particular Manager Denise Coyle and board members Neil Humphries, Bruce Andre, T.A. Dorsey and Kirk Davis," said BiJay Adams, general manager of Liberty Lake Sewer and Water District. "We look forward to continuing to serve the members of East Side to provide safe and reliable drinking water."

For more information, contact Adams at 509-922-5443.