



American Water Works Association
Pacific Northwest Section

SPRING 2020

WATER *matters*

The Official Magazine of the
Pacific Northwest Section – AWWA

Spokane

2020

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PNWS-AWWA

2020 PNWS-AWWA Annual Conference

Spokane, Washington

April 28-May 1, 2020

- ▶ **Source Water Protection
in the Farm Bill**
- ▶ **Section Election Results**
- ▶ **Committee Reports**

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The Year of Change and Opportunity

As my time as Chair of the Pacific North West Section (PNWS) Board of Trustees rapidly approaches a close, I want to take this time in my last article to express what an honor it has been to serve all of you in this capacity. I truly hope that I have lived up to the trust that you placed me when I was granted the opportunity to help lead and shape the future of our section.

This has been the year of change and opportunity and it has been a privilege to be able to be a part of a Board that was able to facilitate some new training opportunities, such as the Leadership Symposium.

Rather than spend a lot of time trying to draw attention to the many things that were accomplished by the Board this past year, I really want to give praise for the accomplishments

of this Section where it is really due: all of you, the members of PNWS. As I have stated before, it is nothing short of amazing: the talents the members of this Section possess and the time, dedication and commitment that each of you selflessly gives to your various Committees and Subsections is what really makes PNWS successful and a standout in the American Water Works Association.

Over the past couple of years as Chair Elect and Chair, I have had the opportunity to serve with some outstanding people that will be leaving the Board this year – Alex Modifi, Suzanne Delorenzo and Dan Sleeth. I cannot express how much I have enjoyed and gained from serving with each of you and the contributions that you have made –

not only to the Board but also to the Section as a whole.

On May 1, I have the privilege of passing the gavel onto Ronda Farmer, whose commitment to this Section has been inspiring, and welcoming in a new group of Trustees. John Roth, Chair Elect; Karen Kelly, Oregon Idaho Trustee; Cheryl Capron, Washington Trustee; and Doug Schlepp, Trustee at Large will be joining existing Trustees Michelle Cheek, Crystal Jensen, Dave England and Association Director Randy Black in helping guide the Section thru the next year.

I appreciate all the support and the opportunity to serve as Chair of the Pacific North West Section it has truly been an honor. 🙏

James Dean
PNWS Section Chair

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The Foundation of AWWA

In late January, I had the pleasure of attending the American Water Works Association (AWWA) Winter Board Meeting in San Juan, Puerto Rico, and I wanted to share some of the brief highlights. At the end of 2019, AWWA membership stands at 52,073 – the first time the 52,000 mark has been reached in more than five years. The Association’s financial performance was strong, which ended with a net operating income of \$1 million over budget. This surplus will be moved as the Association has already established a reserve fund to help bridge those years when the economy has a turndown and membership drops. AWWA has set the goal of maintaining \$5-6 million dollars as its reserves. Also, the Association successfully secured over \$2 million in grant funds in 2019 for small system training. These are just a few of the highlights.


One of the primary focuses of the meeting was to re-evaluate the work that has gone into updating the Associations Strategic Plan that is now five years old. In case you are not aware, the AWWA Vision Statement is, “A Better World Through Better Water.”

The Association successfully secured over \$2 million in grant funds in 2019 for small system training.

The mission is, “Providing solutions to effectively manage water, the world’s most important resource.” The core principles are *Protect Public Health, Safeguard the Environment, Share Best Practices, Inspire Innovation, and Foster Diversity and Inclusion.*

There are four Strategic Goals in the Association Strategic Plan: 1) Member Engagement and Development, 2) Organizational Stewardship, 3) Knowledge Creation & Exchange, and 4) Water Policy and Leadership. The Board of Directors was asked to review the current Strategic Objectives versus the proposed Changes to Strategic Objectives. I greatly enjoyed the opportunity to have input towards the proposed Strategic Objectives in order to guide the mission of the Association in the years ahead.


Finally, on the last day of our meetings, there is the election of Presidential Officers and a Director-At-Large position that varies from year to year. Each year there is a vote for President Elect, three for Vice President, one for the position of Director-At-Large, and one for Service Provider Director-At-Large. Chi Ho Sham was voted in as President Elect and will serve as President of AWWA in 2022. Chi Ho Sham is a Vice President and Chief Scientist at Eastern Research Group, Inc. in Lexington, Massachusetts, where he has been employed since 2016. Chi Ho has been an active member of the Northeast Section of AWWA since 1989. Voted in to fill the three positions of Vice President were Jennifer Elms of Texas, Stephen Randtke of Kansas, and Patrick Staskiewicz of Michigan.



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I'm excited to report that Corianne Hart Burnett from our Pacific Northwest Section was elected to serve a three-year term as the Service Provider Director-At-Large. Corianne joins Kristin Kihs, Mike Stuhr, Marshal Thompson (until June of 2020), and I in representing the Pacific Northwest Section. Please join me in congratulating Corianne when you see her. There is no doubt in my mind she'll do great things at the Association level while always looking out for the interests of our Section.

In looking to the year ahead, I'm hoping all of you are making plans now to be in Spokane, WA, from April 30 to May 1 for the Pacific Northwest Section Conference. I'm sure that you are equally looking forward to the conference as I am. I cherish the opportunities to see and catch up with you there, since the last time we saw each other.

The visiting Vice-Presidential Officer for our conference will be Greg Lukasik from the Montana Section. I first meet Greg last year at ACE in Denver, where he shared with me that he had also been a high school and college basketball referee, hanging it up two years ago after 21 years. He then started refereeing football two seasons ago and said it has been a lot of fun.

I've asked Greg to share a little bit about himself with us so that you can get to know him. Greg enjoys cross country running with his kids and anyone else who likes running, along with hiking, camping, trout fishing, and big game hunting (which turns into more of a hike with a rifle in the snow). Also, huckleberry picking and driving mountain roads in the GMC are fun things for Greg and his family to do.


Greg and his wife Laura have three children, Hannah (16), Jared (13), and Kylie (11). As a family, they sponsor several children worldwide through school programs like Compassion International and Restoration Uganda (RU is now based out of the Spokane Valley; Greg helped launch it while living in Kalispell about 12 years ago and considers it a great organization doing great things – www.restorationuganda.org). When you see Greg, please take the time to say hello and welcome him to our Section conference.

The Section conference is a great time to take in the very best

information and education while earning Continued Educational Units (CEUs). You can pick up where you left off with friends, reacquaint yourself with colleagues, and gain new friends and industry associates in the Pacific Northwest Section.

The AWWA ACE Conference will be in Orlando, Florida, from June 14-17. The ACE Conference meets the needs of the many diverse attendees. There will be over 100 technical sessions to surely address your interests on the

hottest topics. Also, there will be the exhibit hall with over 1,000 booths hosted by manufacturers, suppliers, and distributors from all over the world. These are just a few of the reasons you should be at ACE – I hope to see you there.

As always, please contact me at rblack@lakewoodwater.org if there is anything I can do to help you make the most of your membership with AWWA. 

Randy Black
PNWS-AWWA Director



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Conference Offerings and Subsection Election Results

This edition of *Water Matters* is all about the upcoming Section Conference, taking place on April 29-May 1 in Spokane, WA. This year, we are honored to host American Water Works Association (AWWA) Vice-President Greg Lukasik. Greg is an Associate Principal for Great West Engineering in Billings, Montana. With over 22 years of experience in the water industry, Greg has been an active member of AWWA since 2003.



Involved in the Montana Section, Greg has served as a Junior Trustee, Senior Trustee, Vice Chair, Board Chair, Past Chair, Program Committee and is currently the Chair of the Scholarship Committee. On the Association level, he is serving on the Board of Directors as the Montana Section Director and Vice President. He serves as a member of the AWWA DARC Committee for the Community Engineering Corps and has managed two CEC projects in Montana. Greg is also a member of the Montana Officials Association and officiates all levels of football and basketball games.

Greg holds a Bachelor of Science degree in Civil Engineering from Montana State University and is a licensed Professional Engineer (P.E.) in the State of Montana, Colorado and North Dakota. He lives in Billings, Montana with his wife, Laura, and three kids, Hannah, Jared, and Kylie.

You will have several opportunities to meet Greg over the course of our conference. He will be playing golf Wednesday with AWWA Director Randy Black and the rest of his foursome, presenting the Fuller Award at the Awards Luncheon on Friday

Spokane



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and speaking at our Section Board of Trustees Meeting Friday afternoon. I know you will give him a warm Pacific Northwest welcome.

If you haven't registered for the conference yet, I encourage you to do so. When you finish registering, make sure that you download the free Conference App (www.pnws-awwa.org/conference/download_app): the only tool that will give you session descriptions in advance of the conference so you can plan ahead. We have also made a number of changes to our Conference App and are interested in your feedback.

In addition to excellent technical content, we have some great networking events going on throughout the conference. Don't miss the Section Meet and Greet and Competition Night on Wednesday evening, beginning at 5 p.m. We will have plenty of great food and

beverage options for you to enjoy with the finals in Tapping, Meter Madness, Hydrant Hysteria and new this year Best Tasting Water. Winners will represent our Section at ACE20 in Orlando. This of course follows earlier events during the day on Wednesday, pre-conference sessions and golf.

Thursday is all about technical sessions and the vendor trade show: a full day of learning, an evening of networking with the Young Professional Scavenger Hunt and dinner with consultants.

Friday's activities include our Awards Luncheon where the Section presents its five most prestigious awards. The passing of the gavel to incoming Section Chair Ronda Farmer takes place at the afternoon Trustee Meeting. The Conference concludes with a closing reception at 5 p.m. We wish you safe travels and look forward to seeing you in Spokane!

Section Election Results

This past January, the votes for our most recent Section election were counted and I am pleased to introduce you to your new Section officers:

Chair Elect – John Roth



A past Trustee, John is a longtime member and past president of the Lower Columbia Subsection. The 2008 Heart and Soul Award winner has served on numerous Committees and competed at ACE in Top Ops. He serves on multiple regional Boards, representing AWWA and public water systems. John is the Water Quality and Production Manager for Clark Public Utilities.

Washington Trustee – Cheryl Capron



A 25-year AWWA member, Cheryl is a member of the King County Subsection. Known throughout the Section as the Program Committee Chair for our annual conference, Cheryl has been responsible for our conference

program coordination since 2014. When not volunteering for the Section, she volunteers with the Association of Boards of Certification overseeing the development of the ABC water distribution operator exams. Cheryl is the 2016 Heart and Soul winner, 2017 Subsection Activity Award winner and the 2019 Powell Lindsay Award winner. Retired from Seattle Public Utilities Cheryl is excited about joining the Section Board.

Oregon/Idaho Trustee – Karen Kelley



Karen is a 15-year member of the Association and very active in the Cascade to Coast Subsection, where she has served as a Subsection officer and short school Committee member. A past Chair of


the Oregon Water Utility Council, she brings to the Section Board a unique perspective as a former regulator and utility superintendent. Karen works for Eugene Water and Electric Board as the Water Operations Manager.

Trustee At-Large – Doug Schlepp



Doug started volunteering with our Section back in 2006, when he was invited by Dave Stanley and Tom Keown to join the Distribution Committee. Since that time, Doug has served as an officer of the Distribution Committee, King County Subsection and is past chair of the Subsection Advisory Council. The 2018 Heart and Soul Award winner currently works for RH2 Engineering. 🇺🇸


Kyle Kihs
Executive Director



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Distribution Committee

The Distribution System Committee is happy to report that our website is up to date. Please visit us at <https://sites.google.com/a/pnws-awwa.org/distribution-system> for future event listings and updates.

At the end of the year, our Committee welcomed Stephen Deem, Drinking Water Distribution System Engineering Specialist with the Washington State Department of Health. Looking ahead, we continue to look for interested individuals throughout the Pacific NW Section.

The Distribution System Committee remains focused on providing high quality Operator training. The Advanced Hydraulics training was jointly hosted with the Engineering Committee on March 17, 2019, in

Vancouver, WA. The training provided an understanding of pressure zone anatomy, the impact of pump stations and reservoirs operations on distribution systems, and a review on valves options – including specialized applications, and changing the system hydraulics through rezoning. The training also shared lessons learned from when things go wrong and how to increase redundancy.

The Distribution System Committee is fully prepared and looking forward to the 2020 Spring Conference in Spokane. If you haven't loaded the mobile App yet, search for *2020 PNWS-AWWA Conference*, either in Play Store for Android or App Store for iPhone, and see what we have available for you in both the Pre-Conference and

Technical Sessions. You will find a wide range of informative and educational topics that we will be hosting and moderating on all three days. If you missed the Advanced Hydraulics training in Vancouver, the Distribution System Committee will be hosting three days of operator-focused training at the Annual Conference in Spokane from April 29-May 1, 2020.

Our meetings are held regularly via conference call and are generally focused and brief. If you are a motivated individual who's interested in joining our Committee, please contact Chair Daniel Reisinger at dreisinger@carollo.com, Vice-Chair Doug Schlepp at dschlepp@rh2.com, or Secretary Rachel Lanigan at rlanigan@rh2.com. 

ORWARN Committee

ORWARN Conference


ORWARN is sponsoring a conference, scheduled on October 21-23, 2020, in Newport, OR. The Conference Organizing Committee anticipates water and wastewater CEUs will be awarded for Oregon. Save the date and plan to attend!

ORWARN Website

The new ORWARN website is live. If you need help logging in or have questions, please email info@orwarn.org – one of the Board members will respond and be happy to assist.

Conferences

Current ORWARN Chair Chris Wanner attended and presented, *ORWARN 101+*

EMAC/PNEMA, at the PNWS-AWWA Utility Management Committee Training event in Olympia. This event had regional utilities present on how to better coordinate and communicate after system failures. There was a great turn out and ORWARN is on track to both attend and present at various conferences throughout the coming months. 

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Membership Engagement and Development Committee (MEDC) and 2020 Vision Committee

The Membership Committee, revitalized as the Membership Engagement and Development Committee (MEDC), is gearing up for the conference in Spokane with a focus on outreach to Subsections – to provide Subsection leadership with tools to engage with members.

We Need You – Join MEDC

The MEDC and 2020 Vision Committees are currently working with the Young Professionals (YP) Committee to revamp our structure to serve the section more efficiently. As a part of the revamp, the MEDC is actively recruiting for new Committee members. **If you're interested in engaging new and current members and love to promote the AWWA**, then the MEDC is the Committee for you. We hold quarterly calls and meet at the Spring conference. If you're interested in getting involved contact Committee Chair Chris Young at chris.young@murraysmith.us.

2020 PNWS Conference First Timer's Meet and Greet

Planning is underway for the First Timer's Meet and Greet breakfast

on Thursday April 30, providing first-time conference attendees an opportunity to network and learn about the organization. We will also be identifying some key Section champions to attend and engage with newcomers at the event. Look out for this event in the final conference schedule.

Third Annual Mentorship Program Underway

The third year of the PNWS Mentorship Program is underway with 19 mentor/protégé pairings assigned as of early January. If you're interested in learning more about the program but missed the application deadline, you can find the application and the Mentorship Guide at pnws-awwa.org/mentorship, the QR Code below, or contact our Mentorship Program Coordinator Kevin Wyckoff at kwyckoff@pnws-awwa.org.



Hosting a Career Fair and Need more AWWA SWAG?

Contact chelsea.hanna@murraysmith.us and we'll make arrangements to ship you supplies in time for your next event. Giveaways are a valuable tool to connect with students, who will hold onto their swag and remember AWWA when they consider future opportunities.

- Need help planning your next event? Download the PNWS Event Toolbox with 'how-to' instructions and resources for event planning: <https://sites.google.com/a/pnws-awwa.org/2020-vision-initiative-committee/events>
- Learn more about PNWS and the benefits of being a member: www.pnws-awwa.org/member-groups/awwa-membership

MEDC Purpose: To support the Pacific Northwest Section of AWWA (PNWS) in the engagement, retention, and growth of membership.

2020 Vision: To align with AWWA's strategic initiative for a sustainable future by bridging young talent with the water industry.

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Stay Connected on YP and 2020 Activities by attending the Monthly YP Committee Calls. Email the YP Committee Communications Coordinator Amie Batham at amie.batham@medford.org to get on the listserv.

Water Resources Committee

2020 Conference Plans


The Water Resources Committee (WRC) will be very busy at the Section Conference on Thursday, April 30. The Committee will be hosting two technical sessions: one a general water supply and water rights development session and the other focused on the Spokane Area. The WRC is also hosting a pre-conference session on Wednesday

about groundwater supply management and the Inland Empire Subsection.

Please also join us for a social event at Zola (located at 22 W Main Avenue, a short walk from the conference site) on Thursday once our technical sessions wrap up at 5 p.m.

Seeking Future Leaders

We are actively seeking future

leaders for the Committee. If you are interested in participating at any level – from becoming an officer to simply suggesting topics for the 2021 Section Conference – please contact one of our current officers, whose contact information is listed on our Committee's webpage: <https://sites.google.com/a/pnws-awwa.org/water-resources-committee/officers>. 

Water Conservation Committee

Spokane 2020 Conservation Technical Sessions

Conservation from the ground up: we have an excellent line up of presentations for the spring Conference, ranging from designing and implementing water conservation plans, using the power of the internet to become a certified Water Conservation Technician, advances in technology to grow your system into a Smart Utility, innovative

planning to transform stormwater from a problem to a resource, and more. Friday's Conservation Technical Sessions feature presentations from members across our tristate Section and contain many great offerings for everyone.

Committee Calendar Update

Come early to the Conference on May 1: we will hold our Committee meeting at 7:30 that morning in

room 102 C/D. If you are interested in getting more involved in the Conservation Committee, we encourage you to attend this meeting and our track at the 2020 PNWS-AWWA Conference. For more information, please contact Chair Kristen Zimmer at kzimmer@spokanecity.org.

P.S. Don't forget to save the date for August 20, 2020: we'll be hosting our annual summer meeting in beautiful Coeur d'Alene, Idaho. 



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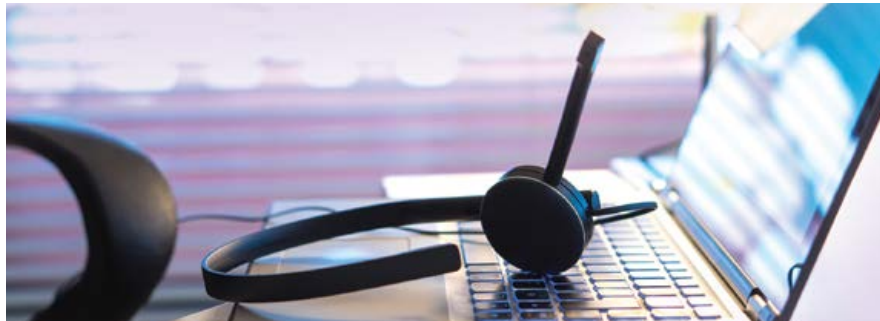
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Customer Service Committee

The Pacific Northwest Section Customer Service Committee has a busy year this year. We have changed to a two-day, one-course program now. It used to be a course that was broken up into three sections – earning CEUs for each section. A person could choose to attend one or all three courses. We have now made it one course, over two days, with CEUs given once successfully completed. People will no longer be able to elect what course they want to take – they must take the whole course to get the CEUs and the certificate. We are hoping that this will appeal to more people since it is not as long; therefore, they don't have to miss as much work.

We rescheduled the Wenatchee course from last year due to the weather; we are holding it in March of this year. We are also holding




training at Kitsap County in March. Registration is now open for both of these listed areas.

We are also holding training in Moscow, ID, in April and Yakima, WA, in September. Registration for the training in Moscow will be up shortly so mark your calendar and keep an eye out for registration.

We've received a request to host training in Sammamish, WA, in

October; we are currently checking and hoping to confirm our trainer will be available during at that time.

If you are interested in training with us, learning more about scheduling the Customer Service Course in your area, or wish to join the Customer Service Committee, please contact Committee Chair Cathy Middleton at cmiddleton@rwpud.org or 503-674-4502. 

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Utility Management Committee

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Derek Pell, Deputy Director for Operations with the Washington State Department of Health, presented, *Is It Time to Install Intrusion Alarms?* – what will you do if the news shows up at your door, reporting on a YouTube video of teenagers cutting your locks, scaling your water tower, and then jumping in for a swim. The audience participated in mock situations and discussed how they would handle the proposed situations knowing that the State health departments are available to help with evaluation of the dangers, communicating with the public, and recommending any follow-up measures.

The financial losses to the community of a 'boil water notice' include shutting down restaurants, grocery stores throwing away shelves of produce and prepared foods, schools and convalescent centers serving pre-packaged meals brought in from outside the area – not to mention the loss of public trust. During the fall of 2014, Mercer Island issued two consecutive boil water notices (spanning weeks) as a result of a few positive coliform results. City of Mercer Island staff, Jason Kintner, Jennifer Franklin, and Ross Freeman told us how important relationships are with the water provider, the health department, public representatives, other city departments, responders, neighboring utilities, and the media. They also detailed the process of lifting the notice, diagnosing the problem, and the operational solution.

City of Mercer Island staff told us how important relationships are with the water provider, the health department, public representatives, other city departments, responders, neighboring utilities, and the media.

Yes Dorothy, there can be a tornado in Washington! Jerald Johnson, Operations Foreman with the West Sound Utility District, watched as trees fell onto vehicles and homes, resulting in the need to shut down the entire distribution system until they could isolate sections most impacted. Emergency response communications were found lacking with other agencies. His response was to first verify the safety of WSUD employees, determine the magnitude of impact to their system, and then prioritize any repairs and testing of sections for restoration of service. Establishing temporary potable water stations for residents who were permitted to return after 24 hours was one of the biggest challenges. He discussed the permanent filling stations that they have since constructed, should an emergency event occur again in the future.

The City of Seattle is a regional water provider. On January 2, 2019, Dave Muto, the Manager of Water Systems Operations for Seattle PUD, received the call that there was a lot more water than usual overflowing the underdrain/perimeter drain system of their 32 MG concrete reservoir (that's like a subsurface football stadium, 56 feet deep with 154 supporting columns). On that evidence alone, Dave made the decision to take this major reservoir out of service immediately. A four-inch hole was found in the concrete floor with a 30-inch deep void underneath the adjacent column. Ultimately, laser scanning and ground penetrating radar were used to determine any and all problems with the substructure. With a large amount of temporary lighting, a drone was used to survey the upper



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sections and roof. Repairs were complicated because concrete could not be pumped through the hatch but had to be taken to the repair site in batches. Tnemec sealant at the base of each column needed to be applied by hand. All of the work was completed for less than \$100,000 by mid-June in time for the summer uptick in water demand.

A constant theme of the emergencies presented was the importance of communication and cooperation. Chris Wanner, Director of Operations for the Portland Water Bureau, spoke on the development of the mutual-aid Water/Wastewater Agency Response Networks (WARN), organized by the State. Participation is free and utilities are under no obligation to provide assistance. Help can be requested at any time (there is no need for a formal emergency declaration) and


can be as simple as a request for tools or materials to repair a main break or as extensive as personnel and supplies in the event of a disaster. In our region, go to www.orwarn.org, www.wawarn.org, or www.idwarn.org.

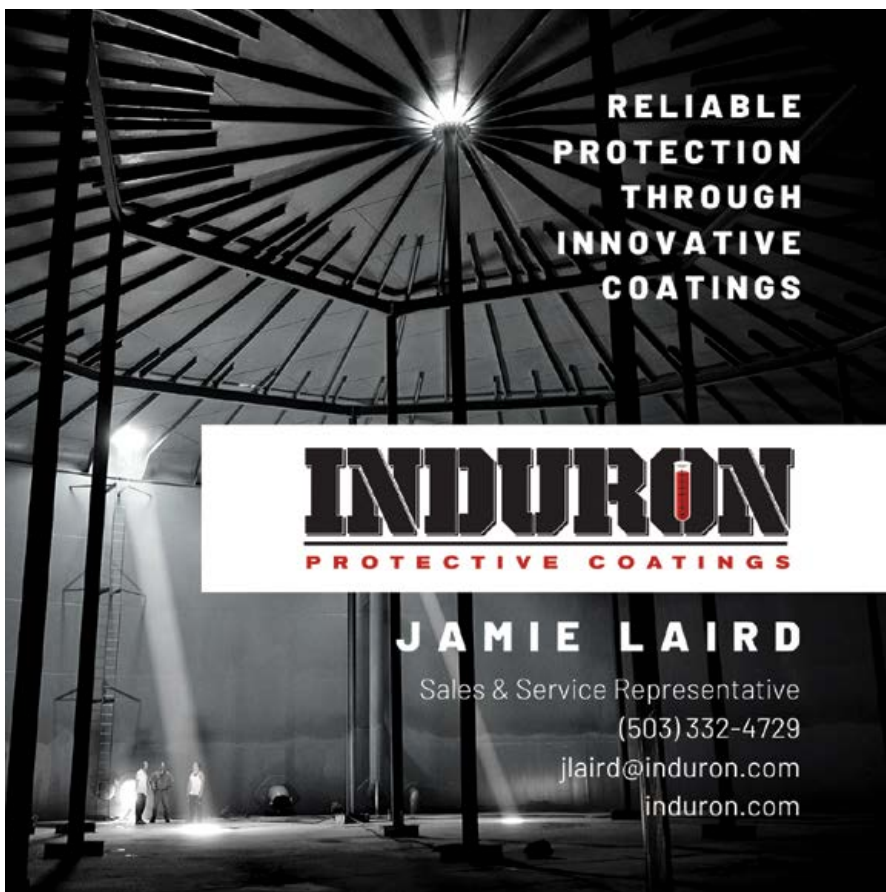
What would you do if you inspected a force main that is supposed to be in use, but instead you find that it's bone dry? Andrew LaRue, General Manager for the Valley View Sewer District, presented on their discovery of a gash in the 6" ductile iron force main on the bottom of the Duwamish River. They decided to temporarily slip line the force main with a 3" hose, accomplished by district staff. Cost including the dive company who surveyed the problem was less than \$15,000. The District declared an emergency, which helped them to qualify for an emergency loan from the Washington

Public Works Board. The permanent solution includes a realignment, horizontally directionally drilled so that the pipe will be deep enough to avoid damage in the future. The project is expected to be completed later this year.

Compared to the general workforce, a disproportionate percentage of water operators will retire within 10-15 years. Compounded by remoteness and sparse populations, Orcas Island and Lincoln County, Washington, are implementing two different solutions to address operator shortages.

Orcas Island, near the Canadian border, served only by ferry, requires an affinity for a relatively isolated life style. According to Paul Kamin, General Manager for the Eastsound Water Users Association, past attempts to recruit licensed operators to the island had not been as successful as they would hope. In order to entice current residents, who would benefit from stable year-round employment, a free 20-hour training course about water system operations, held over several weeks, was offered to identify good candidates who could then continue their education towards licensure. Ten registrants finished the course and three were offered employment.

Buck Lucas, Analyst for the Public Utilities Board (Washington) and the State's Infrastructure System Improvement Team, spoke on the efforts in rural Lincoln County, west of Spokane, to form a regional coalition guided by a mutual aid agreement, between the eight cities and town with separate water systems. All of them face similar challenges, can provide input on the sustainability goal looking 50 years ahead, and realize cost savings. The distance between these small towns are too significant to connect them as a regional utility. The WA State Public Works Board funded the initial project (\$24,000) which helped the communities see how much more successful they could all be if they could work together and share resources. 



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2020 PNWS-AWWA Annual Conference

It has been seven years since the Pacific Northwest Section Conference has been in Spokane. In 2013, we were able to *Make a Splash* in Spokane and we certainly did that. That year, we had beautiful weather and made a few adjustments to the conference schedule. Seven years later, we are looking forward to more beautiful weather and making a few more adjustments to the conference schedule this year.

Much of the conference will have a similar look and feel. On Wednesday, there will be pre-conference seminars and a golf tournament, then the evening will open the competitions – where we will meet at the convention center lobby and be led by our talented Shadle Park Highlanders to the Riverside Patio – followed by a night of networking and dancing on the terrace with great river views and beverages.



Some of the more notable changes to the conference include the ABC Pinning Ceremony, for Professional Operators during the luncheon on Thursday, and an Awards Luncheon, with a message from Chair Dean on Friday.

Then later in the day on Friday afternoon, the Board of Trustees meeting will commence and be followed by the incoming Chair Reception for Chair-Elect Ronda Farmer. We hope that these changes will allow for more members to attend the awards luncheon, the Trustee meeting and wish Ronda well at the Chair Reception.

The Chair's Reception will conclude the conference so those who plan to go home earlier can do so – rather than stay an extra day to attend the evening banquet.

We have a valuable line-up of technical sessions for those looking for CEUs. This year's program contains two full CEUs to help you reach professional growth requirements and provide interesting content to take back to the office to share.

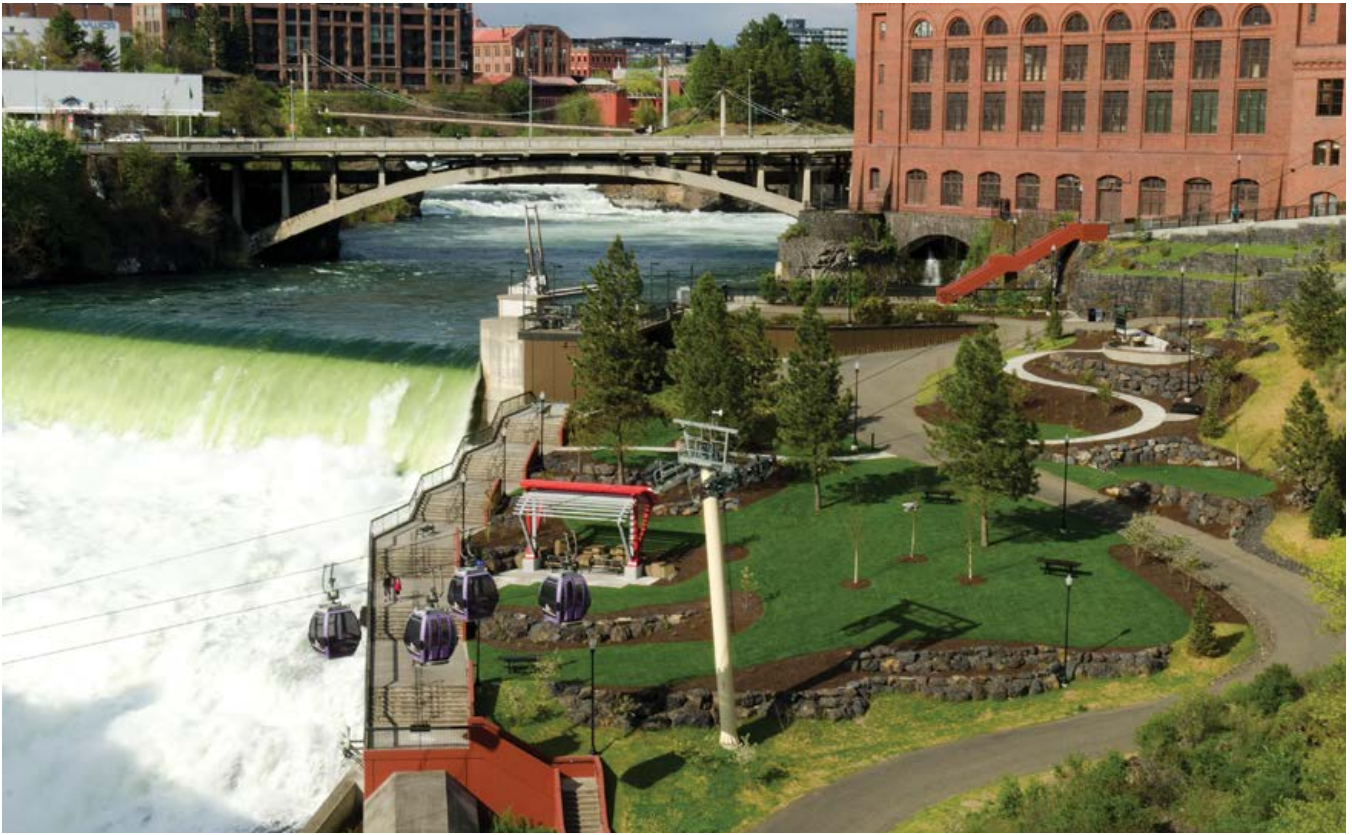
Some other noted changes have taken place in Spokane, including a \$60 million dollar renovation to Riverfront Park with added river vistas and a park next to City Hall.

Another breath-taking view of the fall is available thanks to a recently constructed combined sewer overflow tank, perched on the river's edge – an amazing feat to construct. As always, the gondola will be running for great views of the falls for the adventurous.

The downtown core is more vibrant than ever with a number of great restaurants, micro pubs and breweries within walking distance of the convention center.

The golf tournament will be at the Creek at Qualchan: a beautiful course that offers picturesque views and some challenging hole locations. This natural setting features





“Some other noted changes have taken place in Spokane, including a \$60 million dollar renovation to Riverfront Park with added river vistas and a park next to City Hall.”



wooded hills full of wildlife and it is a member of the Audubon Society. Latah creek meanders through the course that has been known to collect its fair share of golf balls. If you haven't

registered for the golf tournament you may want to consider taking to do so unless of course your interests lie with education – then the pre-conference seminars are the place to be.

Registration is open and (like past years) you can still register at the convention center on Tuesday, from 3-6 p.m. so we hope to see you there. Remember, it's *Your Vision, Our Future.*



- Utility Design
- Structural Engineering
- Road Design
- Planning
- Survey
- Stormwater Design
- NPDES Compliance
- Stream Restoration
- Pump Stations
- LID Designs
- Bridge Construction
- Retaining Wall Design
- Water Treatment Facilities
- Water Main Replacements
- Trenchless Pipe Replacements

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2020 PNWS– AWWA Annual Conference Schedule

Tuesday, April 28

Registration and Information	3:00 – 6:00 pm	Ballroom Lobby
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Wednesday, April 29

Registration and Information	7:30 am – 6:00 pm	Ballroom Lobby
Breakfast	7:30 – 8:30 am	Convention Center
Golf Tournament	8:00 am – 2:00 pm	The Creek at Qualchan
Pre-Conference Seminars	8:30 am – 4:30 pm	Convention Center
Lunch	12:00 – 1:00 pm	Convention Center
Vendors set-up	8:00 am – 5:00 pm	Convention Center Ballroom
Conference Meet and Greet with Competition Finals	5:00 – 9:00 pm	Riverside Patio

Thursday, April 30

Registration and Information	7:00 am – 6:00 pm	Convention Center Lobby
Vendor Exhibits	8:00 am – 5 pm	Convention Center Ballroom
Breakfast Vendor Hall	6:30 – 8:00 am	Convention Center Ballroom
First Time Attendees Meet and Greet Breakfast	7:00 – 8:00 am	Room 202 A/B
Early Bird Sessions	7:00 – 8:00 am	Convention Center
Bid for Water	8:00 am – 5:00 pm	Room 101
Technical Sessions	9:45 am – 12:00 pm	Convention Center
ABC Pinning Ceremony	12:00 pm	Convention Center Lobby
Vendor Visit and Lunch	11:30 am – 1:30 pm	Ballroom
Gimmicks and Gadgets and Top Ops	1:30 pm	Room 206 A/B
Committee Meetings Afternoon (on or off-site)		
Technical Sessions	1:30 – 5:00 pm	Convention Center
Fresh Ideas Poster Contest	4:00 – 5:00 pm	Room 206 A/B
Vendor Exhibits Conclude	5:00 pm	Ballroom
Evening for Vendor/Consultant Hospitality		
Young Professionals Scavenger Hunt	6:00 – 9:00 pm	Convention Center

Friday, May 1

Registration and Information	7:00 am – 7:00 pm	Convention Center Lobby
Early Bird Sessions	7:00 – 8:00 am	Convention Center
Breakfast	7:30 – 8:30 am	Convention Center Lobby
Technical Sessions	8:30 am – 12:00 pm	Convention Center
Awards Luncheon	12:00 – 1:30 pm	Ballroom First Floor
Technical Sessions	1:30 – 5:00 pm	Convention Center
Bid For Water Silent Auction Closes	3:00 pm	Room 101
Trustee Board Meeting	3:00 – 5:00 pm	Room 205
Incoming Chair Reception	5:00 pm	Convention Center

A Note From The Program Committee

Cheryl Capron and Maura Kegley want to thank all the Committee Chairs, speakers and moderators for their assistance in putting together the Spokane technical program and keeping it on track. It's a big chore and two people couldn't pull it all together if all the rest of the people hadn't done the hard work.

This year, we are offering up to 2.0 CEUs of drinking water credit and, depending upon the state, at least 0.6 CEUs of wastewater credit. A copy of the technical program is available here and on the Program Committee page of the PNWS-AWWA website.

New this year: the Conference App can display the technical sessions in a calendar format so you can see which sessions are happening at any given time.

Please note that we will *not* be offering printed programs at the conference; if you'd like a paper copy to carry with you, please save the copy in this magazine. At our table in the lobby at the conference, we will have a more detailed schedule showing the CEU details for each session.

And finally, a warm welcome for our Boise Vice-Chair DeEtta Fosbury, with GSI Water Solutions and the Water Resources Committee. DeEtta is currently shadowing Cheryl and Maura and will start communicating with Committee Chairs later this spring.

2020 Conference Contact:

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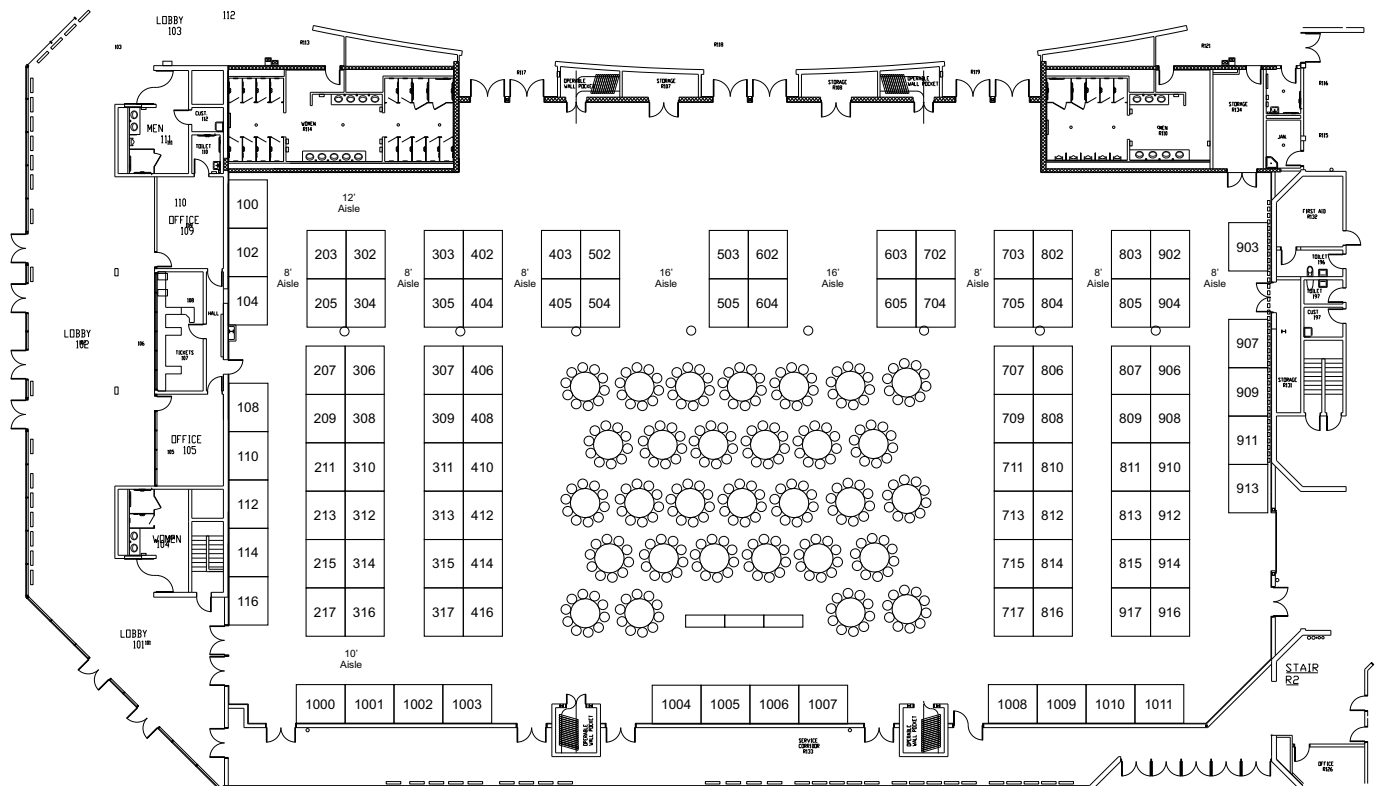
2020 PNWS- AWWA Exhibitors

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Badger Meter
Baker Silo, LLC.
Beaver Equipment
Calgon Carbon Corporation
Cimco PNW
Cityworks
Consolidated Supply Co.
Correct Equipment, Inc.
DN Tanks, Inc.
Ductile Iron Pipe
Research Association (DIPRA)
Environmental Site Solutions
Evergreen Rural Water of Washington
Ferguson Waterworks
Frank J. Martin
Furrow Pump
General Pacific
GRI
HD Fowler Company, Inc.

Hydra- Stop
Hymax by Mueller WP
Innovyze
Lane Community College
Energy Water Programs
Master Meter, Inc.
Mueller Company
Mueller Systems
Murraysmith, Inc.
Neptune Technology Group
Northwest Pipe Company
Norton Corrosion Limited, LLC.
Onsite Water Management
PACE Engineers, Inc.
Parametrix
PCE Pacific
PumpTech, Inc.
Ranney Collector Wells – Layne
RH2 Engineering
Romac Industries, Inc.
Rosemount
Schneider Water Services

Shannon & Wilson
Sigma Corporation
Sound Water Services, Inc.
Stantec
SUEZ Advanced Solutions
Swan Analytical USA
SWS Equipment, Inc.
Sybis LLC
Tyler Union/McWane Ductile
Underground Solutions
U.S. EPA Water Security Division
Varela & Associates, Inc.
Varius, Inc.
Wachs Utility Products
Washington Water Service
Whitney Equipment Co.
Wilson Engineering, LLC.
Wm. H. Reilly & Co.
Xylem, Inc.
Zenner USA

Exhibitor Map



Technical Program

Maximum CEUs Possible – Idaho – 2.0 DW, WW pending	Maximum CEUs Possible – Oregon – 2.0 DW, 0.6 WW	Maximum CEUs Possible – 2.0 WDOH, WDOE pending
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Morning

WEDNESDAY, APRIL 29 MORNING PRE-CONFERENCE SEMINARS

Room	101	102 A/B	102 C/D	202C
Hosting Committee	Water Treatment – Joanie Stultz (Full Day Seminar)	Engineering – Carrie Pak	Distribution – Don Lovas	IESS/Water Resources – Michelle Johnson (Full Day Seminar)
Seminar	Disinfection and PFAS	Shaken, Not Stirred (Part 1)	Modeling and System Management	Groundwater Supply Management: Basic Concepts and Practical Examples from a Regional Sole-Source Aquifer
8:30 am	Best Available Technology for Treating PFAS in Drinking Water – Mike Tallering	A New PVC Pipe for Shifting Ground – David Hughes	Starting with Why: Using Level of Service to Upgrade Our Water Planning Efforts – Nicki Pozos	Hydrology 1: How the Unique Spokane Valley – Rathdrum Prairie Aquifer Works – Seth Oliver
9:00 am	Chlorine and Public Health: An Overview of Disinfection Systems – Kenneth Packard	Suitability of Butt-Fusion Joint PVC Pipe in Areas Prone to Ground Movement, Including Seismic Events – Jeffrey Rosenlund, Patrick Laidlaw	Minimizing Apparent Losses: An Analytical Approach to Revenue Recovery Through Prioritized Meter Testing and Replacement – Alex Puryear	Hydrology 2: Hydrologic Trends and Their Influence on Water Planning – John Porcello
9:30–9:45 am Break				
9:45 am	When the Hypochlorite Stars Don't Align: Choosing Between Bulk or On-Site Generation for PWB's Washington Park – Amanda Mesick, Juanita Hess	Earthquake Resistant Ductile Iron Pipe (ERDIP) as a Counter-Measure Against Tsunamis – Takaaki Kagawa	Not Your 1990's Vintage Hydraulic Model: How Advancements in Modeling Can Be Employed to Reconfigure and Optimize Distribution System Configuration and Operations, Identify a Cost-effective CIP, Manage Water Quality, and More – Dave Harms, Denny Clouse	Resource Management 1: Water Use and Planning in the Idaho Panhandle Portion of the SVRP Aquifer – Terry Pickel, Bijay Adams
10:15 am	Advances in PFAS Treatment – Bench, Pilot, and Full-Scale Results – Pierre Kwan, Bob York, Greg Keith, Beth Mende	Earthquake Resistant Ductile Iron Pipe (ERDIP) – Considerations for Public Water Conveyance – Tim Tobin	Raising Pressure the Right Way: Solving One Problem Without Creating More – Doug Lane	Resource Management 2: Purveyor-Driven Forums and Mechanisms for Locally-Based Resource Management – Jeremy Jenkins, Terry Pickel
10:45–11:00 am Break				
11:00 am	Overview – Airway Heights PFAS Facility – Paul Stull, Kevin Anderson, Shane Dougherty	Achieving Resiliency for Critical Non-Structural Water System Components – Mike Britch	Building a UDF Program – Christina Suto	Resiliency: A Well-Aligned Well Repair Assessment – Kenny Janssen, Joe Foote
11:30 am		Code Minimum, Is the Minimum Enough? – Matthew Perkins	Understand and Proactively Manage Your Water System Faster & More Efficiently with Integrated Pressure & Temperature Sensors – Michele Harvey	Water Quality: Protecting Groundwater Quality Locally and Regionally Through Spokane Aquifer Joint Board and Aquifer Protection Districts – Jeremy Jenkins, Bijay Adams

Afternoon

WEDNESDAY, APRIL 29 AFTERNOON PRE-CONFERENCE SEMINARS

Room	101	102 A/B	102 C/D	202 C	
Hosting Committee Moderator	Water Treatment – Joanie Stultz (Full Day Seminar)	Engineering – Faride Abzade	Distribution – Don Lovas	IESS / Water Resources – Michelle Johnson (Full Day Seminar)	
Seminar	Disinfection and PFAS	Shaken, Not Stirred (Part 2)	SCADA and Cybersecurity	Groundwater Supply Management: Basic Concepts and Practical Examples from a Regional Sole-Source Aquifer	
1:00 pm	Field Trip – Airway Heights PFAS Facility – Paul Stull, Kevin Anderson, Shane Dougherty	Tohoku 2011 Earthquake and Tsunami Crisis: Resiliency Lessons Learned – Mike Britch	Introduction to SCADA Cybersecurity – James Swanson	Local Water Conservation: Committing to Water Conservation in Spokane – Kristen Zimmer	
1:30 pm		Willamette Water Supply Program Riverbank Seismic Improvements – Jennifer Minton, Scott Schlechter, Mike Britch, Paul Kneitz		Regional Water Conservation: A Regional Model Ordinance for Landscapes – Bijay Adams, Terry Pickel	
2:00–2:15 pm Break					
2:15 pm		City of Newport OR – Save Our Water Supply, A Small Town With An Expensive Problem – Verena Winter, Tim Gross	ShakeAlert Earthquake Early Warning – Beyond the Basics (Optimization & Enhancements) – Dan Ervin	WRF Project #4917 Update: Utilizing Smart Water Networks to Manage Pressure and Flow for Reduction of Water Loss and Pipe Breaks – Michael Karl	Upriver Facility/Well Electric Well Station (Presentation and Tour) – Steve Burns, Doug Greenlund, Evariste Mulindangwe
2:45 pm	3:15–3:30 pm Break				
3:15–3:30 pm Break					
3:30 pm	Among the Faults – WTP Upgrades in a Seismic Hot Spot – Don Barraza	Probabilistic, Cloud-Computing Assessment of Bellevue's Water System Seismic Vulnerability – Kimberly Lawrence, Doug Lane, Enoch Nicholson, Matt Maring	Smart Utility – Advanced Analytics at Rainier View Water Company – Michael Karl, Ayman Alafifi		
4:00 pm					

Morning

THURSDAY, APRIL 30 EARLY BIRD SESSIONS

Room	102 A/B	102 C/D	202 A/B	202 C	205	206 A	206B
Hosting Committee	Research – Damon Roth	Water Treatment – Jay MacPherson	Membership Engagement	Water Information Technology – Rob Barrett	Engineering – Kathleen Manion	Distribution – Rachel Lanigan	
7:00 am	A Framework to Evaluate the Life Cycle Costs and Environmental Impacts of Water Pipelines – John Johnson	Lots of Progress, Lots of Work to Come: An Update on the Bull Run Treatment Program – Lyda Hakes, David Peters, Michelle Cheek	First Time Attendees Breakfast	Smart Cities, Smart Water – How IoT Devices are Transforming the City of the Future – Michele Harvey	Lessons from Mega-Projects for Your Mid-, Mini- and Micro-Projects – Mark Graham	Operators and Engineers Huddle to Win a Critical Pipeline Challenge – Sara Tannahill, Tom Lindberg	
7:30 am		Pilot and Bench Scale Testing of Cyanotoxin Solutions for the City of Salem – Nicole Williams, Rob Keller, Laura Southworth, Thomas Gillogly, Jess Brown		Making Sense, And Use, of Your SCADA Historical Data – Robert Barrett	Five Years In: Developing the Willamette Water Supply System – Joelle Bennett, Matt Duffy	Unidirectional Flushing – Lessons Learned – Aurelie Nabonnand, Susan Fenhaus, Josh Flanders	

Morning

THURSDAY, APRIL 30 MORNING TECHNICAL SESSIONS

Room	102 A/B	102 C/D	202 A/B	202 C	205	206A	206B
Hosting Committee	Water Resources – Andrew Austreng	Water Treatment – Enoch Nicholson	Public Officials – Judi Gladstone	Customer Service – Cathy Middleton	Engineering – Joelle Bennett	Distribution – Doug Schlepp	Young Professionals – Erica Rodriguez
8:30 am	Adaptive Management Strategies for Drinking Water Supply in an Uncertain Future Climate – Kelsey Daly, Tyler Jantzen, Kateryna Gomozova	Lakewood Water District's Ponders PCE and PFAS Treatment Facility – Milton Larsen, Randy Black, Stephen Timko	Northeast Spokane Water Quality Event – Dan Kegley, Dorothy Tibbetts	Providing Safe and Reliable Drinking Water: Two Small Water System Consolidation Projects in Liberty Lake, Washington – BiJay Adams	Rehabilitating Concrete Structures – A Look To Technology to Speed Up the Process – Eric Zimmerman	Hydraulic Grade Lines for Operators – Rachel Lanigan	Improve Your Public Speaking Without Saying a Word – Brian Murphy, Candace Au-Yeung
9:00 am	SPU Wellfields Project: The Journey from Conventional ASR to a Mitigation Program – Tim Flynn, Ulysses Hillard	Clark Public Utility Well #35 Manganese Treatment Case Study – John Roth, Gary St. John		Clear Processes and Employee Engagement Are Critical for Success – Tonya Reiss	O Pipe, Where Art Thou? – Condition Assessment of 12 Miles of 24-inch Water Transmission Main – Erik Waligorski, Brian Sliger	Mobilizing Crews to Improve Field to Office Record-Keeping – Cort Wilson, Damon Schwetz	Time Management – Taking Back The Day – Candace Au-Yeung, Brian Murphy
9:30–9:45 am Break							
9:45 am	Water Systems and Declining Groundwater in the Columbia Basin – Benjamin Serr	Iron and Manganese Removal 101 – Brian Smith	Incident Command System for Public Officials: What's My Lane, How Do I Stay There, and Am I Still In Charge? – Chad Buechler	Unleashing the Power of Technology for Effective Communication and Organization – Laura Oxsen	Not Just a Day at the Beach: Balancing Competing Priorities While Upgrading An Inlet Station – Nathan Rostad	The Water System Design Manual: Updates in the 4th Edition – Samuel Perry	Effective Communication: Know Yourself First! – Aurelie Nabonnand
10:15 am	Temperature Modeling In Support of Willamette Water Supply Program Permitting – Jacob Krall	Process Optimization Planning for Manganese Removal in Groundwater – Lee Odell		How Emerging Leaders Can Lead the Way – Michael Lubovich	Leveraging Pump Station Condition Assessments – Jeanne Finger		
10:45–11:00 am Break							
11:00 am	Water Mitigation Pilot Projects – Challenges, Status, and Opportunities – Jason Van Gilder	Designing a Groundwater Treatment Facility with a Residential Appeal – Beth Mende	Too Big to Fail – Jolyn Leslie	AWWA 101: How to Get the Most Out of Your AWWA Membership – Natalie Reilly, Alena Thurman	Water Well Asset Management: Maintaining Well Performance and Water Quality – Michael Judkins	An Innovative Inlet: New Solutions to City Growing Pains – Marshall Meyer	Life After YP – An Elder Millennial Taking the Next Steps – Andrew Nishihara
11:30 am	Snoqualmie Pass Utility District – Water Right Portfolio Optimization – Tyler Carlson	Design Cost Effective Groundwater Treatment Plants – Cindy Yeager	Water Rights: A Brief Introduction – Bobbie Gilmour	Engaging a Community in Water System Master Planning – Adam Steele	Portland Water Bureau Steel Conduit Assessments and the Technologies Used – Ashan McNealy	You Cannot Conserve Your Way Out of Infrastructure Improvements – Michelle Johnson, Branden Rose	How to Study for Professional Certifications and Exams – Laura Oxsen, Dan Sleeth
12:00–1:30 pm	Vendor Lunch/Division Meetings					Setup for Top Ops	

Afternoon

THURSDAY, APRIL 30 AFTERNOON TECHNICAL SESSIONS

Room	102 A/B	102 C/D	202 A/B	202 C	205	206 A	206 B
Hosting Committee	Water Resources – Jeanne Finger	Water Treatment – Jolyn Leslie	Public Officials – Infrastructure Asset Management and Maintenance – Sara Broderius	Public Information – Kerry Aden	Engineering – Tom Boland	SAC Competitions – Bill Reynolds, John Roth	
1:30 pm	The Spokane Valley-Rathdrum Prairie Aquifer – One Sole-Source Aquifer’s History: Formation to Current Groundwater Protection Efforts – Jeremy Jenkins	Overcoming Logistical Challenges of Setting up a Large Complex Pilot Project: Bull Run Filtration Pilot: Part One – Yone Akagi, Lynn Stephens, Mac Gifford, Kim Gupta, Tom Krause, Lyda Hakes, Damon Roth, Mia Vijanderan	Asset Management Defined – Jeff Austin, Mike Judkins, Chad Atcheson, Andre Noel	Salem’s Cyanotoxin Response Update – John Kennedy, Dwayne Barnes, Jude Grounds	Emergency Repairs to a 32 MG Concrete Reservoir – Dave Muto	Top Ops	
2:00 pm		Preliminary Findings from the Bull Run Filtration Pilot: Part One – Mac Gifford					
2:30–2:45 pm Break							
2:45 pm	Got Waste? Put It in the Right Place! The SpokaneKootenai Waste Directory: How 2 States and 10 Agencies Are Collaborating to Protect Our Sole Source Aquifer – Tonilee Hanson	How the City of Sacramento Restored the Useful Life of 100 MGD Capacity Gravity Filters – Doug Henderson	The Asset Management Approach to Water Infrastructure – Jeff Austin, Mike Judkins, Chad Atcheson, Andre Noel	The (Cyanotoxin) Plan We Hope We Never Have To Use – Jill Hoyenga	Aging Infrastructure: With Over a Dozen Potable Storage Reservoirs of Various Sizes and Types, Where Do I Begin? – Travis McFeron, Nate Hardy	Gimmicks & Gadgets	
3:15 pm	Choosing Cost Effective Solutions for Stormwater Projects – Marcia Davis, Raylene Gennett	Ozonation Operations 101 – Wilsonville and Lake Oswego – Kimberleigh Reid, Kari Duncan			A Standardized Evaluation and Scoring System for Water Storage Reservoirs – Marshall Meyer, Jen Otis		
3:45–4:00 pm Break							
4:00 pm	Forecasting Daily Streamflow to Maintain a Critical Minimum Streamflow Target – Kevin Boggs	Effective Monitoring Strategies for Full-scale Conversion to Biofiltration and the Impact of Intermittent Operation – Michael McKie	Asset Management Planning and Procurement – Jeff Austin, Mike Judkins, Chad Atcheson, Andre Noel	Excellence in Communications Awards	We’re Running Out of Space! Where to Site Your New Backbone Facilities – Adam Blair, Adam Bjornstedt	Fresh Ideas Poster Contest	
4:30 pm	Implementing the “Hirst Fix” in the Little Spokane Watershed (WRIA 55) – Mike Hermanson	Ozone-Biofiltration Performance at SFPUC’s 160-MGD Harry Tracy WTP – Alex Mofidi			Triple Play Saves Money: Extra Storage For Raw Water Turbidity and Managing Water Age – Matt Hickey, Andy Szatkowski		



Morning

FRIDAY, MAY 1 EARLY BIRD SESSIONS

Room	102 A/B	102 C/D	202 A/B	202 C	205	206 A	206 B
Hosting Committee	Distribution – Bryan St. Clair	Water Treatment – Jeff Tasoff	Water Quality – Tom Bell-Games		Engineering – Janice Bell	Research – Joanie Stultz	Utility Management – Diane Pottinger
7:00 am	Advanced Metering Infrastructure (AMI) – Is It Now Within Reach for Small to Mid-Sized Utilities? – Andre Noel	Water Treatment Updates to the Water System Design Manual – Samuel Perry, Jeff Johnson	Evaluation of Risk Factors for Integrating a New Supply – Joelle Bennett, Joel Cary, Jessica Dorsey, Priya Dhanapal, Stephen Booth, Virpi Sal-Zieman, Melinda Friedman, Danbi Won		Traffic Control and Other Considerations Drive Alignments for Large Waterlines in Congested Urban Streets – Mike Britch, Andre Tolme	Advancing Beyond Excel: Applying the R Software Environment for WQ Data Analysis – Damon Roth	Plans That Add Value to Capital Projects – David Dunn, Janet Cherry
7:30 am	Resiliency Through Distribution System Operational Excellence – Capturing the Other Half of the Resiliency Equation – Daniel Reisinger			Weaving a Pipeline Alignment through a Changing and Seismically Challenging Landscape – Faride Abzade, Tammy Cleys			

Morning

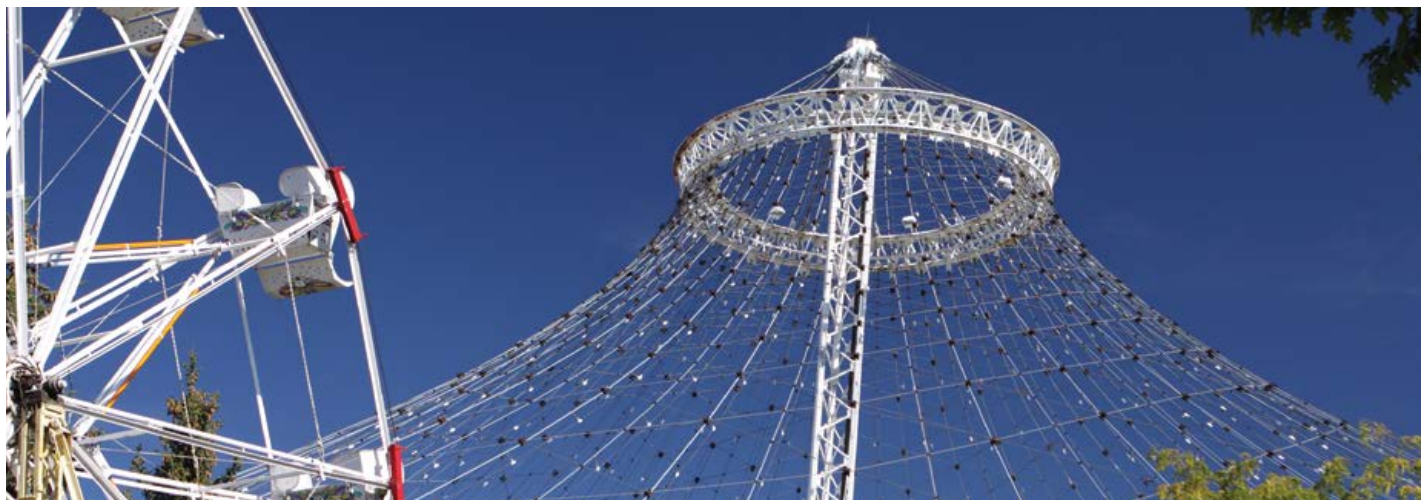
FRIDAY, MAY 1 MORNING TECHNICAL SESSIONS

Room	102 A/B	102 C/D	202 A/B	202 C	205	206 A	206 B
Hosting Committee	Cross-Connection Control – Terry Pickel	Water Conservation – Kristen Zimmer	Water Quality – Tom Bell-Games	Wastewater – Eric Schey	Engineering – Greg Loscher	Research – Gwen Woods-Chabane	Utility Management – Diane Pottinger
8:30 am	What Are These Crazy Things? Type II Detector Assemblies – Scott Hemingway	Water Conservation Programs & Curtailment Plans of Oregon Water Providers With WMCPs – An Overview of Approaches – Suzanne De Szoeke	Ammonia, Metals, and Iron Bacteria... Oh My! – Andrew Hill	Use An Electronic O&M Manual As a Living Document For Knowledge Transfer and Storage – Pi Kosarot, Jeff Day	Reading the Crystal Ball: Today and Tomorrow's Demand Forecast – Preston Love	Unlocking Potential Treatment Capacity and Reducing Capital Cost – Michelle Peters	Integrated Capital Management Water – A Strategic Approach – Dan Kegley, Kara Heatherly
9:00 am		Developing the City of Spokane Water Conservation Plan – Doug Greenlund	Novel Bench-Scale Testing to Assess Impacts of Chemistry Changes on Galvanized Iron Pipe – Alex Mofidi		Updating and Using a Hydraulic Model to Answer System Questions – LaDonne Harris, Matthew Hubbard	Rainwater to Tap – Building a Group A Water System While Meeting the Living Building Challenge For an Office Building in Downtown Seattle – Russell Porter	
9:30–9:45 am Break							
9:45 am	Cross Connection Control at Wastewater Treatment Plants – Bill Bernier, Scott Hemingway	Growing a Water Conservation Program: City of Redmond, Oregon – Suzanne De Szoeke, Josh Wedding	Lead & Copper Rule: Routine Monitoring and Site Selection – Matthew Hadorn, Kay Rottell	In House Work – (Shortliners, I&I, Construction & Safety) – Nate Kujawa, Rob Jamison, Matt Kelsey	Planning and Managing a System with a Bit of Everything – David Stangel, Frank Nicholson	Comparison of Activated Carbon and Biochar for Stormwater Reuse by Removing Organic Contaminants – Kyle Shimabuku	The Color Purple – Forming the City of Beaverton's Non-potable Water Utility – Ronan Igloria, David Winship, Jason Melady
10:15 am		Online Water Conservation is Here! – Roger Ebbage, Brenda Cervantes	Corrosion Control Treatment and Required Monitoring – Kay Rottell, Matthew Hadorn		Employing Decision Science to Determine a Resilient Long-term Supply Strategy for Corvallis – Alena Thurman, Tom Hubbard	Designing High Rate Ammonia Removal Treatment for Groundwater – Lee Odell	How 8 Cities and Towns are Working Together to Address The Shortage of Certified Operators
10:45–11:00 am Break							
11:00 am	Small Public Water System Cross Connection Control Program Development – Terry Pickel	Building An Intelligent Water System – Joseph Dryer, Joseph French, Adrian Sutor	Tucson Water Turnaround: Crisis to Success – Michael McGuire	Challenging Sewer Bypass of King County's 96-inch Diameter Eastside Interceptor – Brian Sliger, Erik Waligorski	Maximizing the Investment in WTP Upgrades – Alicia Leeds, Jamie LeBlanc, Gary Tollefson	Innovative Approaches to Coagulant Control and Plant Optimization – Jeff Marrs	Workforce Opportunities – Chris McCord, Paul Bishop
11:30 am			Lead and Copper Reduction in the City of Olympia's Distribution System Through Corrosion Control Optimization at Source Water Facilities – Joe Plahuta	The Efficiency of an Emergency – A Case Study of Two Projects Completed After Declaration of An Emergency – Randy Harrington	Permitting Expectations and Strategies for Efficient Project Development – Sean Thomson		Developing Future Engineers and Protecting Public Health: Perspectives on Working With Student Groups – Chris Stoll, Bobbie Gilmour, Tom Keown
12:00–1:30 pm	Awards Lunch						

Afternoon

FRIDAY, MAY 1 AFTERNOON TECHNICAL SESSIONS

Room	102 A/B	102 C/D	202 A/B	202 C	205	206A	206B
Hosting Committee	Cross-Connection Control – Terry Pickel	Water Conservation – Doug Greenlund	Water Quality / Water Treatment – Matt Maring	Wastewater – Eric Schey	Board of Trustees	Distribution – Dan Reisinger	Utility Management/ Engineering – Carmen Brown
1:30 pm	How State Regulations Affect Purveyor Cross Connection Control Programs – Terry Pickel, Bill Bernier, Scott Ruyle	Innovative Irrigation Technology for Water Efficiency – Nick Hamad	Legionella and Building Water Systems – Steve Deem	Case Studies of UV Disinfection and Peracetic Acid Disinfection – Scott Weirich, David Kopchynski		Near Miss at Lincoln Heights Booster Station – Dan Kegley	The New and Improved DOH Water System Planning Guidebook – Jamie Gardipe, Brenda Smits, Fern Schultz, Scott Mallery
2:00 pm		Maximizing Water Management Dollars While Bringing Transparency, Equity, and Multiple Benefits – Morgan Shimabuku, Sarah Diringner	How to Best Treat for Geosmin and Cyanobacteria – Selection and Optimization of Treatment Options for the City of Ashland, OR – Jeff Semigran			10 MG Reservoir Cleaning and Inspection Challenge – Managing a 200 gpm Inlet Leak – Jen Otis, Jim Goodman, Dave Beohm, Lance Matney	
<i>2:30–2:45 Break</i>							
2:45 pm	Building an Educational Program for Cross Connection Control Personnel – Jeff Coleman	Regional Efficient Irrigation Design Standards – Kristen Zimmer, Bijay Adams, Craig Anderson, Terry Pickel	Predicting and Monitoring MIB, Sulfamethoxazole, and Cyanotoxin Removal By Powdered Activated Carbon – Kyle Shimabuku	Yelm SCADA Upgrades Increase SBR Treatment Reliability and Provide Operational Flexibility under One Wonderware License using a High Performance HMI – Brian Bunker, David Kopchynski, Glen Barcus	3:00 – Board of Trustees Meeting	A Case Study: Satisfying AWIA Requirements – Kevin Owens	The America's Water Infrastructure Act (AWIA) Risk Assessments and Emergency Response Plans – Karen Edwards-Lindsey
3:15 pm			Evaluation of PFAS Removal with GAC using Rapid Small-Scale Column Testing – Stephen Timko	Preparing for the Big One: Tualatin's Water System Recovery Plan – Jeff Fuchs, Nicki Pozos, Brian Ginter		The 3 R's of AWIA – Risk, Resiliency, and Response – Assessment and Planning Lessons Learned – Dave Price	
<i>3:45–4:00 Break</i>							
4:00 pm	Best Practices in Backflow Preventer Installation and Protection – Carey Wiley	The Water Conservation & Stormwater Nexus – Kristen Zimmer	Removing PFAS: Startup and Performance of the Coupeville GAC Treatment System – Esther Chang, Matt Maring	How Regulation Changes Wastewater Collection Maintenance – Raylene Gennett		Pipeline Asset Management: The Benefits to a Pro-active Maintenance Approach – Chad Atcheson	Creating and Performing a Cybersecurity Tabletop Exercise – Kevin Owens
4:30 pm		Stormwater Subsurface Storage and Reuse for Non Potable Irrigation and Streamflow Enhancement in Beaverton, Oregon – Jason Melady, David Winship, Priya Dhanapal, Marisa Fanguy	PFAS – Identifying Risk and Developing Drinking Water Rules – Mike Means, Barb Morrissey	Removal of Emerging Contaminants through Ozone-BAC: Influence of Activated Carbon Properties – Adam Redding		Tank Asset Management & Maintenance Programs: A Viable Alternative to Traditional Run-to-Fail Maintenance Procurement – Jeff Austin	





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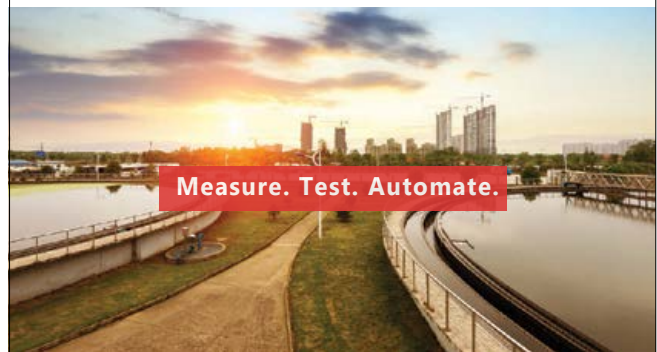
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A Call to Arms (and Volunteers):

Source Water Protection in the Farm Bill

In the 1930s, the Soil Conservation Service, the predecessor to the modern Natural Resources Conservation Service (NRCS), was formed to combat the impacts of the dust bowl and help prevent similar future occurrences. In the decades that followed, NRCS has focused on addressing a wide variety of resource concerns – not just soil erosion but also wildlife habitat, air quality, soil health, water quality, and others. But throughout this history, even though there has long been a goal of improving water quality (and quantity where applicable), until recently source water protection was never a specific focus.

In the 2018 Farm Bill, this has changed. Congress established source water protection as a goal for the NRCS conservation programs and has dedicated considerable resources towards it.


Ultimately, all source waters come from somewhere – often from surface waters or groundwaters that receive inputs from agricultural and forested areas. Working with NRCS and agricultural producers to reduce nutrients, sediments, chemicals, and animal waste entering source waters represents a proactive, effective, and cooperative approach to source water protection.

Over the past few years, the Water Utility Council has led an advocacy and education campaign to increase awareness of source water protection, build source water protection into the core of conservation programs, follow-up on NRCS rules

and policies, and to work with utilities on engaging with these programs. The efforts have met with some success as we've built the knowledge and gotten several AWWA members involved in projects across the country.

But there's much more to be done and you have the power to help tackle it. We are looking for interested volunteers who can build relationships with NRCS locally, help gain utility involvement, sit on the NRCS technical committees, and participate in (or create) activities that benefit source water protection.

For anyone interested, AWWA will provide information and support to those willing to work with their NRCS programs to enhance source water protection. With the NRCS having an office in nearly every county, there is almost certainly one close to you where you can open the conversation about your source water needs, your goals, what resources you can bring, and so forth. Your state's NRCS State Conservationist is a key point of contact for all state-level conservation programs, and there are many collaborative partnering opportunities available. Through the state technical committee, there's also opportunity to help set the criteria that determine how, where, and on what conservation funds will be spent.

If you're interested in learning more, please contact Adam Carpenter, Manager of Energy and Environmental Policy, at acarpenter@awwa.org or 202-326-6126. 



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Hire a Veteran to Get the Job Done

By Stuart Karasik, Ph.D.

Veteran's Day in the United States and Remembrance Day in Canada are opportunities to honor the many difficult, if not ultimate, sacrifices made by our veterans to ensure our ongoing freedoms.

In addition to my individual gratitude, I'm proud of the American Water Works Association (AWWA)'s efforts to appreciate and support veterans. About 20 years ago, AWWA established what is now known as the Workforce Strategies Committee that recognizes the unique value of the military and veteran communities as an excellent resource for future employees.

The Committee established AWWA's Veterans Workforce Initiative (of which I'm a part of) to educate veterans about career opportunities in the water sector and streamline their recruitment into open positions.

These efforts recently resulted in a big win in California – thanks largely to U.S. Navy veteran and Otay Water District Assistant Chief of Operations Jose Martinez. He initiated a multi-organizational campaign that culminated in passage of state legislation allowing U.S. veterans to receive credit for military

education, training and experience when applying for civilian water and wastewater system operator certifications in California. This concept is known as reciprocity.

Calling for reciprocity of military credentials

As background, the United States requires individuals seeking employment in the water and wastewater industry to complete college-level courses and pass state certification exams. This includes active military and veteran candidates who already have the technical skills and experience to successfully perform as a water operator.

Without reciprocity for their military education and training, veterans must again complete required coursework and wait to take the certification exams. This is expensive and can take months, if not years, by which time the veteran often accepts a position in another field.

Fortunately, recent advancements are opening the door to reciprocity of military credentials in the private sector. The Federal government now allows individuals with the military equivalent of a commercial driver's license (CDL) to receive a state CDL without testing. States including Idaho, North Carolina, Pennsylvania and Washington have passed legislation or developed processes to enable separating military and

veterans to receive comparable credit for their training and experience toward state certifications.

AWWA's Veterans Workforce Initiative set out to establish reciprocity of military credentials for water and wastewater system operator certifications. The effort focused on California, because the Association's California/Nevada Section has an active Veterans Committee and there are several large military bases in the region where veterans re-enter the civilian world.

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who got the job done in record time.
Your organization should do the same.”**

**AWWA and Veteran
Leader Join Forces**

Despite AWWA’s best efforts, this effort was stuck in neutral until I connected with Jose Martinez, a mechanical engineering graduate of the U.S. Naval Academy who served as an officer on nuclear submarines.

Jose, an AWWA member, was leading a joint effort between Otay Water District and the San Diego County Water Authority to introduce state legislation – Assembly Bill 1588 – establishing reciprocity of military education, training and experience in water treatment, distribution and related fields in California.

In February 2019, Jose and I met to coordinate his legislative efforts with those of AWWA’s Veterans Workforce

Initiative. We were on the same page as to the value veterans could provide the industry if they had easier access to water sector jobs.

In the ensuing months, Otay and the Water Authority researched, reviewed and proposed revisions and amendments to the language of the Bill. They enlisted two assembly members to co-author the legislation, and they gained local, state and national support from organizations representing water, veterans, education, communities and chambers of commerce.

From state success to national effort

After months of tireless effort, the Bill was unanimously approved by the California State Legislature. On October 12, 2019, it was signed into law

by Governor Gavin Newsom and goes into effect in January 2020.

I don’t know how Jose accomplished all of this while still working full-time and being a terrific husband and father, but he did. Moving forward, he continues to work at the state level as cochair of the California-Nevada Section’s newly established V.E.T. Committee.

AWWA’s Veterans Workforce Initiative is now focused on introducing and passing similar legislation in every state. The heavy lifting is just beginning but can lead to many more qualified separating military and veterans joining our water workforce.

We entrusted the job to a veteran, who got the job done in record time. Your organization should do the same.

Stuart Karasik spent most of his career in the human resources/personnel arena. He has a Ph.D. in education, a master’s degree in biology, and was the training program manager for the City of San Diego.

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Inland Empire Subsection

We are enjoying winter here in the Inland Empire Subsection. We have been doing a lot of preparation work for our upcoming Truck Rodeo on March 11 in Spokane: a full day of training and fun, including demonstrations for Hydrant Hysteria and Tapping,

Meter Madness and Gimmicks and Gadgets competitions. Registration is currently open – for more information, contact Maura Kegley at dmkegs@comcast.net or 509-954-7370.

Meanwhile, we have had ongoing training opportunities, including a

well-received GIS class in January, and two scheduled in February, one on SCADA Basics and Troubleshooting, and a Board Training Class.

Be safe and enjoy the snow: we look forward to seeing you at the Truck Rodeo. 📷

Northwest Oregon Subsection

Get Wild at the Zoo

Our Holiday Party 2020 will be Friday, December 18, from 11 a.m. – 2 p.m.

It's never too early to be hunting for that perfect Ugly Sweater!



Holiday Party 2019 was a Success

198 people attended the holiday party, located at the Monarch Hotel in Clackamas. Thank you everyone for making this a successful event. Many generous donations were provided and a special thanks to *Ferguson, Century West, Core and Main, Consolidated Supply, DN Tanks, WSC, West Yost Associates, McWane Ductile, General Pacific, MurrySmith, Stantec and Pace.*



2019 Officers and North Clackamas County Water Commission Helpers.



Meter Madness



CEUs

Earn 2.0 CEUs at Waterworks Short School on June 20 – 23, 2020. Sessions will be held at Clackamas Community College in Oregon City. Cost is \$250 and registration is now open.

Opportunities

We're currently looking for a Young Professional (YP) to become Chair of our Committee. If you're interested in learning more, are under the age of 35 and have less than 10 years of experience in the water industry, please contact Brooke Barry at bbarry@westyost.com.

Meter Madness hosted at West Linn

Zach Malaer, City of Hillsboro, won Meter Madness with 37.47 seconds. Great job to all the contestants and good luck in Spokane, Zach!

If you would like to sponsor an event, have ideas for educational/training topics or suggestions for our next networking opportunity, please contact our Subsection's Secretary Kyle Arnhart at kylea@tigard-or.gov.

Stay connected with us on social media and share photos that show all the great things your city or company are doing in the industry. 📷



South Sound Subsection

Greetings and Welcome to the South Sound

2019 was a busy year for the South Sound Subsection and 2020 is not going to be any quieter. We have a large assortment of training courses and events planned that will offer something for everyone. Listed here are some of the events we have planned this coming year:

Waterworks 101

Our Waterworks 101 class is held on **February 26** at the Tacoma Public Utilities Auditorium. *Please note that the date has changed since the winter edition of *Water Matters*.

This is a great training program for both new water professionals and public officials (Board members, Commissioners, etc.). The material covers everything from principals of water quality to regulatory requirements.

Best Tasting Water and Meter Madness Competition

Our 12th annual Best Tasting Water competition is scheduled for **March 27**. We are excited for a new venue this year, the **Dystopian State Brewing in Tacoma**. This is a great event where we host the Subsection qualifiers and see who will represent our subsection at the annual Section Conference for both Best Tasting Water and Meter Madness.

Spring Social

This **May**, we will be hosting our annual Young Professionals (YP) Social. Don't be fooled by the title: this event is for everyone to participate.



Water Drop Award

Please watch out for this event – it's a great opportunity to network and meet other water professionals around the South Sound.

Golf Tournament

The LASA Charity Golf Tournament will be held at the **Oak Brook Golf Course on July 17**. Living Access Support Alliance (LASA) is a community-supported agency committed to the prevention of both homelessness and recurrent homelessness by providing assistance to families in need with anything from medical emergencies to helping keep the water running at the tap. Last year we raised \$5,000; come play golf and support a great cause.

Summer Events

The last several years, we've partnered with the King County Subsection to arrange a **Facility Tour** for our members. We are planning to host another this summer but the planning is still in the works. We'll be sure to send out an e-mail announcement as soon as the details are in place.

More Trainings

There will be two more training workshops offered later this year, which will be announced once confirmed.

Opportunities

We are an energetic Subsection that is looking for more people to help out. If you are interested in beginning your leadership journey with the South Sound Subsection or helping us plan, organize, or present at any event in the future, we'd love to hear from you. We meet monthly on the third Wednesday of each month and our door is always open. 📧

Warm Regards,

Michael Lubovich,
South Sound Subsection President
michaellubovich@kennedyjenks.com



Meter Prep



Meter Madness Competition

King County Subsection

Spring is in full bloom and the King County Subsection (KCSS) is actively looking for ways to serve our members. From socials to educational opportunities, we encourage you to go out there and meet all the wonderful people who make up this industry.

Subsection's Strategic Planning and Budget Meeting

King County Subsection officers met (in-person and by conference call) on December 11, 2019, to revisit the KCSS mission and vision and establish goals by Committee for 2020 and 2021. This included early discussion of classes, socials, and charitable giving events. We also spent some time discussing succession planning and how to get more membership involved at the Subsection and membership levels.

If you are interested in learning more about our budgeting and strategic planning, please contact the Subsection's President Charlie Sovacool at charlie.sovacool@consolidatedsupply.com or Secretary Joanie Stultz at jstultz@brwnncald.com.



King County Subsection Supports Young Professionals UW AWWA-WEF Student Chapter Events – Resume Review Night at UW Career Fair

KCSS partnered with the local King County Pacific Northwest Clean Water Association (PNCWA) chapter to host a resume night, with the student chapter of AWWA-WEF in preparation for the University of Washington (UW) Civil and Environmental Engineering Career Fair, and social. The resume night on January 15, 2020 provided an opportunity for UW students to drop

in and get their resume reviewed by a Young Professional. We had a great group of students and YPs attend and our sponsors, KCSS and PNCWA, provided pizza for the event.



YPs and students gather for the post UW Career Fair Social at Shultz's on the Avenue

Networking Social with AWWA and PNCWA Professionals

YPs joined with student group for drinks, food, and networking following the career fair on January 23, 2020, to debrief and share experiences of what to expect in the working world. The social provided a great opportunity for students to talk with YPs and connect. Thanks to the AWWA 2020 Vision Committee and PNCWA for sponsoring the event.



Volunteers demonstrate a flow meter provided by Whitney Equipment Company

Puget Sound Engineering Council (PSEC) Fair, February 8, 2020

King County Sub Section YPs collaborated with the Engineering Committee for the annual Puget Sound Engineering Council (PSEC) fair on Saturday, February 8, 2020. We were glad to be back after getting snowed

out of the event last year. Volunteers operated the booth throughout the day to educate K-12 attendees about water filtration and flow through a water filtration and a flow meter set-up. The event provided a great opportunity to spread awareness about the importance of water in our lives and how students can get involved with AWWA and the water industry. Thanks to Josh Kennedy (Jacobs) for organizing the event and for the King County Sub Section and Engineering Committee for sponsoring the booth.

For more information about YP events or socials, please contact Steven Neubauer, King County PNWS-AWWA's YP and Student Liaison, at steve@nesswd.org.



Training

Chlorine Residual Testing and Lab Skills Workshop

This training was taught by Office of Drinking Water staff on February 4, 2020, in Kent, WA, to provide increased knowledge and experience as recommended by the Disinfection Data Integrity Project (2015). Both morning and afternoon classes provided drinking water operators with a better understanding of good lab skills and chlorine measurement techniques and why they matter.

It also provided operators with hands on skills to answer the questions:

- 1) How do I know my instrument is working?;
 - 2) How do I know that the residual that I measure is real?, and
 - 3) how good is my technique?
- 0.3 CEUs were earned for each half-day session.

The Subsection officers, especially our program directors, are working hard to put together offerings that match the needs of the membership and professionals in the utility industry. The Subsection plans on offering classes to help our members meet their CEU requirements.

Please visit <https://sites.google.com/a/pnws-awwa.org/king-county-subsection/events/training> for future class offerings in 2020. Classes will be posted when the date is confirmed. For questions related to classes, please contact Jim Konigsfeld at jim.konigsfeld@spwater.org or 425-295-3217.

Membership Fun

2020 King County Water Olympics

The annual King County Water Olympics was held on Thursday, March 12, 2020, at the Brightwater Education Center in Woodinville, WA. This will be our second year at this venue because we have outgrown the space for the



King County Water Olympics

King County Water Olympics. With more than 80 competition participants, sponsors and audience showing up to support their colleagues, we want to thank you all for participating and supporting the subsection.

Meter Madness, Hydrant Hysteria, and Best Tasting Water competition

results will be announced in the next *Water Matters* update. We look forward to seeing you in Spokane for the PNWS-AWWA Section Conference April 29- May 1, 2020.

Save the Date

For 2020, the Subsection plans on offering future events in the coming year to provide opportunities for networking and relationship building. Check the website, <https://sites.google.com/a/pnws-awwa.org/king-county-subsection/events>, for current and future offerings.



To suggest future educational/networking offerings, sponsor an event, or to sign up for email notification for any upcoming King County Subsection events, please contact, King County Subsection's Program Director Jim Konigsfeld at jim.konigsfeld@spwater.org.

Curious?


Have you ever shown up to a King County education or social event and wondered how you could become involved or are you interested in getting to know more of the industry folks in our area? The King County PNWS-AWWA Subsection holds monthly officer meetings and encourages interested people to attend, meet the officers and learn more about the work we do to support the membership. If you are interested in attending any of these meetings, please contact the Subsection's Secretary Joanie Stultz at jstultz@brwnncald.com. 

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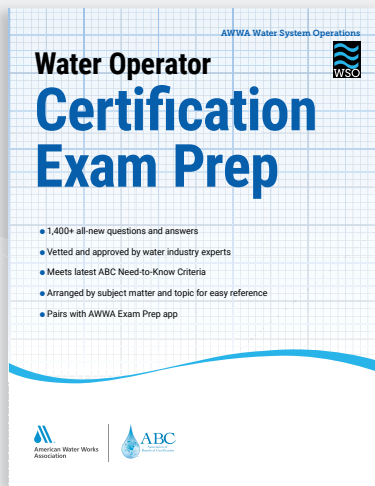
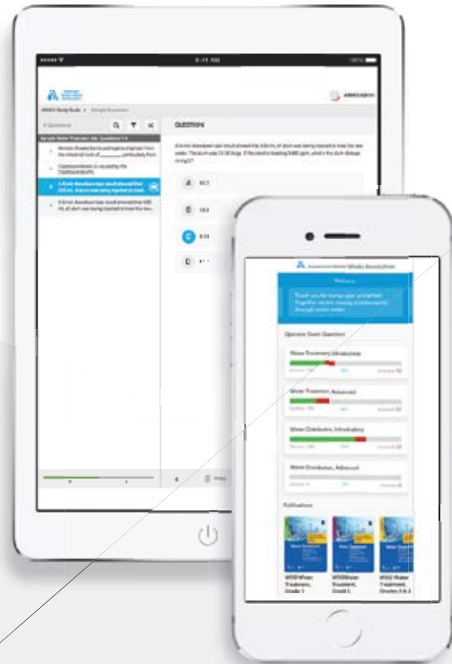
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