



American Water Works Association  
**Pacific Northwest** Section

SPRING 2017

# WATER *matters*

The Official Magazine of the  
Pacific Northwest Section – AWWA

**PNWS-AWWA Annual  
Conference • Kennewick, WA**



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2017 PNWS-AWWA

- ▶ **2017 Annual Conference  
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- ▶ **Committee Reports**
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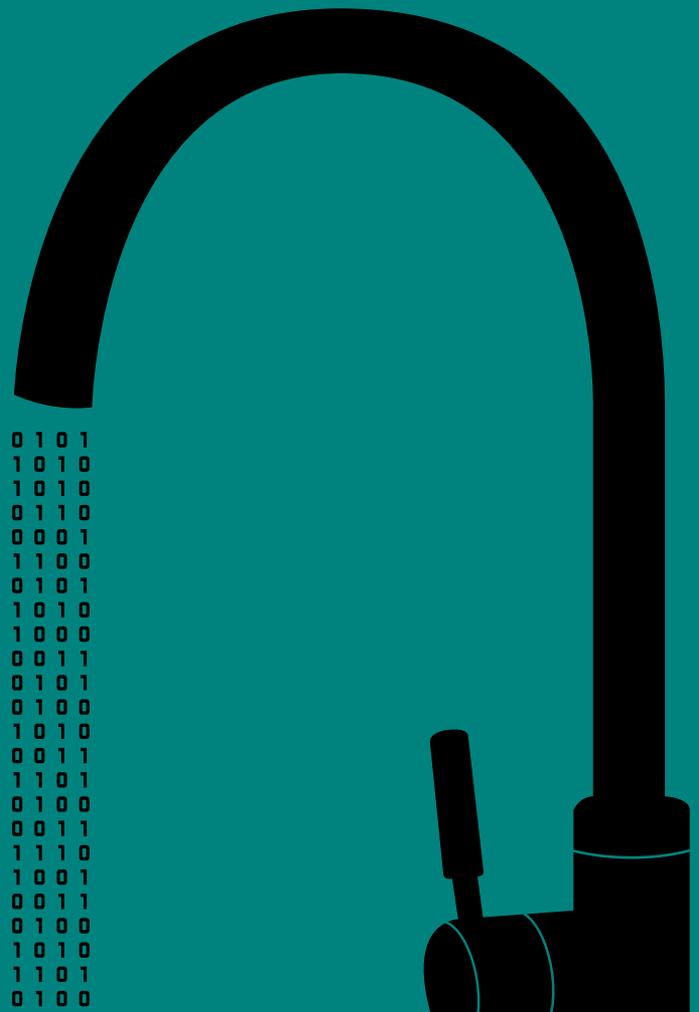
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## It's Been a Good Time, Not a Long Time

**I**t is hard to believe that this is my last *Water Matters* article as the PNWS Chair. These last eight months have gone by so quickly and I have truly enjoyed my new role on the PNWS Board. I am incredibly proud of our members and their overwhelming devotion to ensuring the continued success of our section. The work accomplished by our volunteers is impressive and inspiring.

### Congratulations to our Incoming Trustees

I would like to welcome our incoming Trustees. Congratulations to Mel Damewood (EWEB), incoming Chair-Elect; Julie Smitherman (City of Ashland, Oregon) as incoming Oregon/Idaho Trustee; Ronda Farmer (Spanaway Water Company) as Washington Trustee; and Lynn Williams Stephens (Brown and Caldwell) as Trustee-at-Large. Congratulations!

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### Thank you to our Outgoing Trustees

It has been an honor to serve on the PNWS Board with Randy Black (Lakewood Water District, Washington) as Past Chair, Mike Whitely (City of Gresham) as Oregon/Idaho Trustee, Jeff Lundt (King County Wastewater Treatment Division) as Washington Trustee, and Jennifer Garbely (Kennedy/Jenks Consultants) as Trustee-at-Large. I have truly enjoyed working with all of you and the section has benefited immensely from your dedication to AWWA and the PNWS.

### Membership Survey

Last fall, an electronic membership survey was sent out to the PNWS membership. The purpose of the survey was to provide a mechanism for the PNWS members to provide feedback to the PNWS Board regarding leadership, volunteer involvement, and communication. I am pleased to announce that over 500 members completed the survey. The PNWS Board will be evaluating all of the submitted feedback as part of the strategic planning process. The survey provided some valuable insight about what we are doing right and areas where we can improve. Stay tuned!

### Winter Trustees Meeting

The winter weather has been crazy this year! Most of us have been dealing with unusual wintery conditions including significant snow and ice events. In fact, the Winter Trustees meeting scheduled for Friday, February 3, 2017, was canceled due to a freezing rain event in the Portland metro area. Luckily, many of our subsection officers were able to attend the Subsection Advisory Council's (SAC) training held on Thursday, February 2, 2017.

A special thank you to Tonya Reiss and Doug Schlepp for hosting a successful meeting and providing valuable training for many of our subsection officers.

### Tri-Cities! Tri-Water!

As we look forward to spring and warmer weather, I hope that you have already registered to attend the 2017 Annual Spring Conference in Kennewick, Washington on May 3-5, 2017. Pat Everham and the Kennewick Local Arrangements Committee (LAC) have planned a top notch conference including a robust technical program, operator competitions, the latest technologies and tools on display at the vendor show, and many more networking opportunities. I look forward to seeing you there!

### Water Quality and Technology Conference

The Water Quality and Technology Conference (WQTC) is coming to the Pacific Northwest! The WQTC is a leading conference for water quality professionals focusing on areas ranging from treatment techniques, climate change, distribution system issues, organic contaminants, public health, regulatory issues, and so many more topics. The WQTC will be held in Portland, Oregon, on November 12-16, 2017. I hope you are able to take advantage of this amazing opportunity to attend an AWWA conference.

Finally, I would like to say thank you to each of our members. It is the work of our volunteers that ensures that the Pacific Northwest Section continues to be a recognized leader within the AWWA. Being the PNWS Chair has been so rewarding and I greatly appreciate all of your support over the last year.

I hope to see you all in Kennewick! 

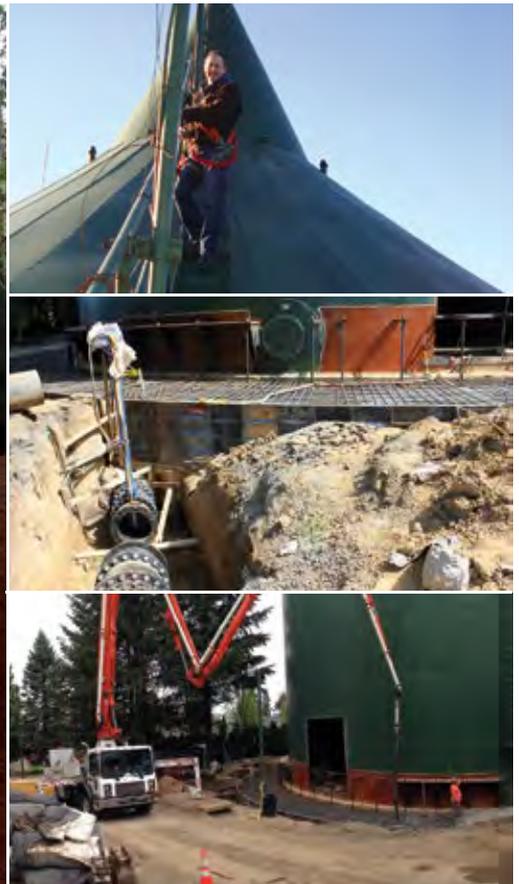
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## Section Election Results

I would argue that you do not need an Electoral College to select your next generation of leaders. We as a Section have been holding a popular vote for decades and the system seems to be working just fine. This past January, the votes in our most recent Section election were counted and I am happy to introduce you to your new Section officers.

### Chair-Elect - Mel Damewood



Mel was on the Section Board three years ago as Oregon/Idaho Trustee, however he did not run for Chair at that time. He has been active

over the years with the Cascade to Coast Subsection and on the Oregon Water Utility Council. Mel works for the Eugene Water and Electric Board.

### Oregon/Idaho Trustee - Julie Smitherman



As one of our most active members, Julie is the current President of the Southern Oregon Subsection, Chair of the 20/20 Vision

Committee and past Chair of both the Conservation Committee and the Young Professionals Committee. She works for the City of Ashland.

### Washington Trustee - Ronda Farmer



Ronda is the current President of the South Sound Subsection and a member of the Water For People

Committee. As a past Chair of the Water I/T Committee and expert on everything Google, many of our members have relied on Ronda for a number of years to assist with our Section website. She works for the Spanaway Water Company.

### Trustee-at-Large - Lynn Williams Stephens



Many of you may remember Lynn from last years' Section Conference in Boise. Lynn was our keynote

speaker and presented on the Community Engineering Corp. Lynn did such a great job especially when you consider I only asked her to speak at our opening session the day before. Lynn is a past chair of the Research Committee and was a member of the Bellevue Local Arrangements Committee. She works for Brown and Caldwell.

The one thing all of these incoming officers have in common, and the reason they were elected, is because they built their network through AWWA. They have all proven their ability to project manage or to lead a team at the Section or Subsection level. They have built a network of contacts that will open doors to other opportunities both personally and professionally. To learn more about what it takes to grow your leadership skills with AWWA, the Section and the Subsections check out the 'How To Be A Leader' page on our website or send me an email. Congratulations to these incoming officers!

### Wrap Party at ACE17



Our Sections' very own Brenda Lennox will accept the gavel and become President of AWWA upon the conclusion of ACE17 in

Philadelphia this June. This is a very prestigious honor and one that none of our Section members should miss. If you are planning on attending ACE please join your fellow Section members Wednesday, June 14 at 5pm at the Wrap Party in the Fieldhouse Pub located in the Philadelphia Convention Center. As we want everyone to attend this event we will not be holding our traditional pre-ACE Meet and Greet on the Sunday prior.

## Message from the Executive Director

### Kennewick Conference

You may have noticed something on the cover of this magazine about the Section Conference in Kennewick May 3-5. If you haven't registered yet I encourage you to do so. You don't want to miss one of the best events of the year. Not only do you receive cutting edge technical information, you also have an opportunity to catch up with old friends and make new ones at the numerous networking events sprinkled throughout the conference. If money is an issue we have scholarships available that will pay for your conference registration. The Young Professionals Committee even provides travel stipends so students can attend our conference. Send me an email if you need more information.

We have a couple of things to note for this year's conference:

- We will have a full-day wastewater track on Friday. This is our second year of holding this track. Special thanks to the King County Wastewater Treatment Division for making this happen.
- We have five tapping teams competing Wednesday night. Rumor has it one may even be a

women's team. Come on out and support these ladies in their first ever competition.

- We are delighted to have AWWA President Elect Brenda Lennox as our Visiting AWWA Dignitary this year.
- At the Conference Opening General Session on Thursday morning we will be presenting several awards including the Public Information Committees Best In Show award and the Engineering Committee Awards. We will also be announcing our Section College Scholarship Award Winners.



- PNWS GO! – This year the Young Professional Scavenger Hunt is open to everyone and it is taking place on our Smart Phone App.

Complete all the items on the Scavenger Hunt and you could win one of three vacation family getaways. Winners will be announced Friday at lunch and you **must** be present to win.

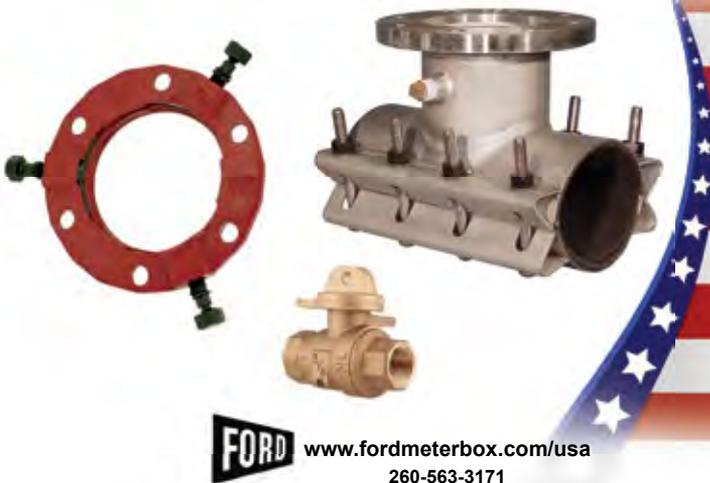
- We have brought back Hospitality Suites for this year. Join us Thursday night at the convention center from 7pm-10pm for three party themed suites. You can expect great food, drinks and music to close out a full day of conference activities. Leave the driving to us that night, as we will have a shuttle for those folks staying at outlying hotels.
- Close out the conference on Friday at our awards banquet where the Section bestows its highest awards for volunteerism and Section Chair Lacey Gores-Priest passes the gavel to Chair-Elect Dan Kegley. Join us prior for the closing of the Water For People Silent Auction and the Best Tasting Water judging.

That's about it for this edition. Looking forward to seeing everyone in Kennewick! 📱

Kyle Kihs, Executive Director

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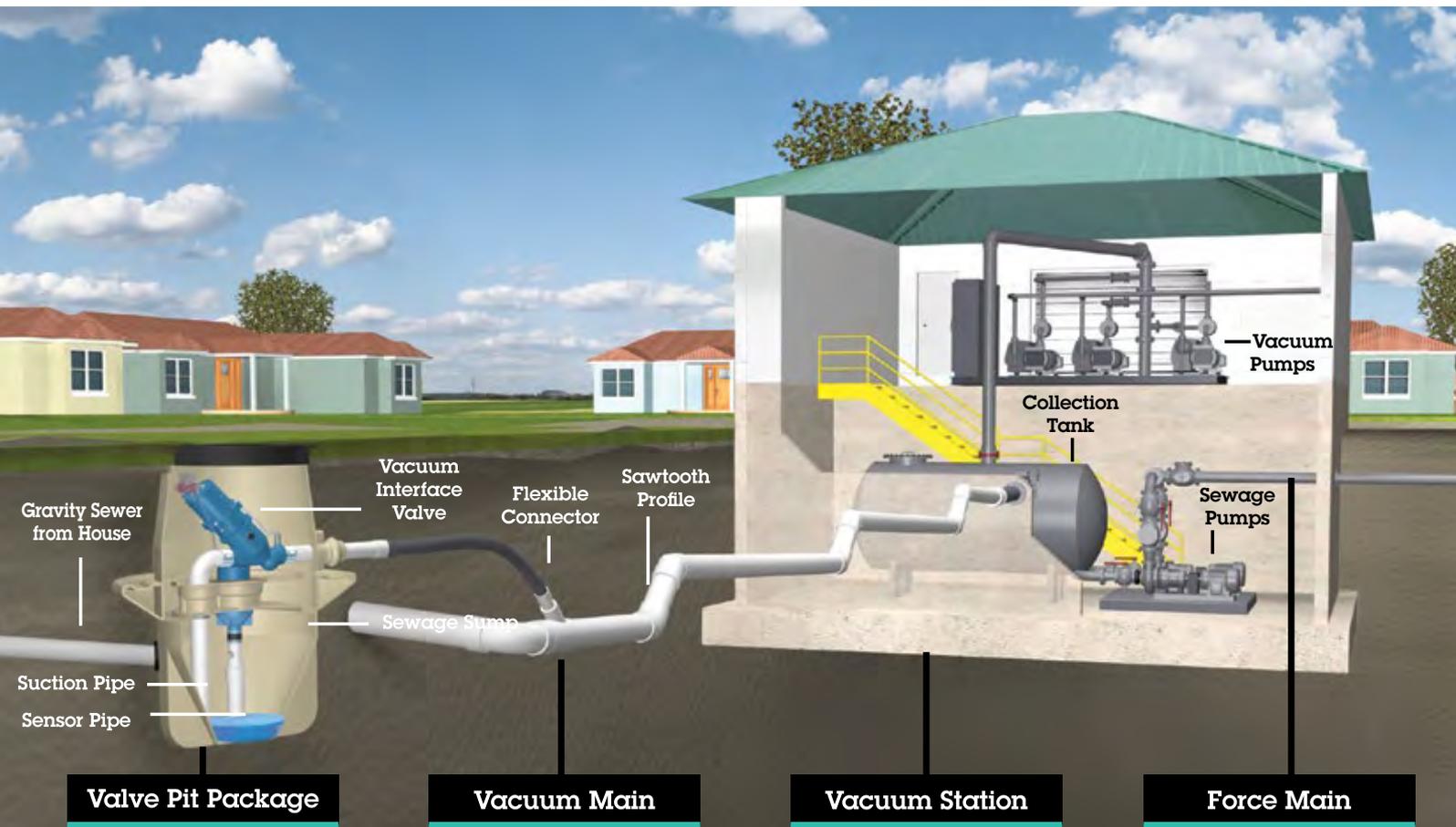


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## The Good News Keeps Comin'

This is a very exciting time to be a member of AWWA and in particular, a member of the Pacific Northwest Section of AWWA. As others and I have mentioned before, our very own Brenda Lennox is taking the gavel as President of AWWA in June of this year! To add more good news, I am extremely pleased to announce that PNWS Treasurer and former Trustee Marshall Thomson with Suez in Boise, Idaho has been selected by the AWWA Board of Directors as Director-at-Large for a three year term beginning in June 2017. One Director-at-Large is selected each year. Competition for the Director-at-Large position is very rigid and it is a testament to Marshall's qualifications and unique perspective as a veteran, manager and former IT professional to be chosen by the Board for this position. With Marshall joining Brenda and myself on the Board, the PNWS is well represented and stands out as a Leader and fresh idea machine of AWWA. Please join me in congratulating Marshall Thomson!



This January I travelled to Scottsdale, Arizona to attend the Winter AWWA Board meeting. I am again amazed at the breadth and depth of what the AWWA is involved in and the level of expertise and excellent resources that this Association provides to the water profession.

Here are some highlights organized by strategic plan objectives:

### Organizational Stewardship:

The Water Equation, a new philanthropic effort from AWWA, has been very successful. The One AWWA Operator scholarship is a matching scholarship with Association and Sections sharing the match. As of January 2017, 77% of Sections are sponsoring a One AWWA Operator Scholarship. The PNWS will give out our first One Operator Scholarship this spring at the Kennebec Section Conference. Please consider the Water Equation in your charitable donations for 2017. [www.awwa.org/donate/about-the-water-equation.aspx](http://www.awwa.org/donate/about-the-water-equation.aspx).

The Community Engineering Corps (CEC) includes nine project teams for 2017, has 10 current projects and 50 projects coming up. The CEC is a partnership between AWWA, Engineers Without Borders, and the American Society of Civil Engineers to bring water projects to needy communities within the US, just like Water For People provides water projects for needy communities in other countries and has had a successful launch.

### Knowledge Creation and Exchange:

The concept of Total Water Solutions was introduced a few years ago in an effort to provide resources to all areas of water. In 2016, the Partnership for

Clean Water (PCW) was launched as part of this effort. Like the Partnership for Safe Water, the PCW is a program for wastewater treatment plant optimization – 43 utilities have already signed up to participate in the Partnership for Clean Water.

AWWA India is growing and held its first symposium, Energy Efficiency in Water and Wastewater Infrastructure in Mumbai on February 10, 2017.

### Membership:

AWWA is 50,000 members strong and its 21st membership plan is going very well.

### Water Policy and Leadership:

2016 proved to be an extremely busy year as a result of the Flint Water Crisis. AWWA had over 2.5 billion media impressions in 2016, which was up from a typical 800 million and was recognized as a leading and credible voice on the issue of lead in drinking water throughout the crisis. AWWA has developed and approved a new Lead Service Line Policy and is in process of completing a Lead Service Line Replacement Standard.

Finally, the Water Infrastructure Finance and Innovation Act (WIFIA) is now funded! We are looking for great signature water projects to help launch this new funding opportunity for water infrastructure projects.

I know this was more than a mouthful. If you have questions about any of the topics that I have mentioned above, please feel free to contact me to discuss them. Thanks for reading, have a wonderful spring and I hope to see you in Kennebec! 

Kari Duncan, Association Director



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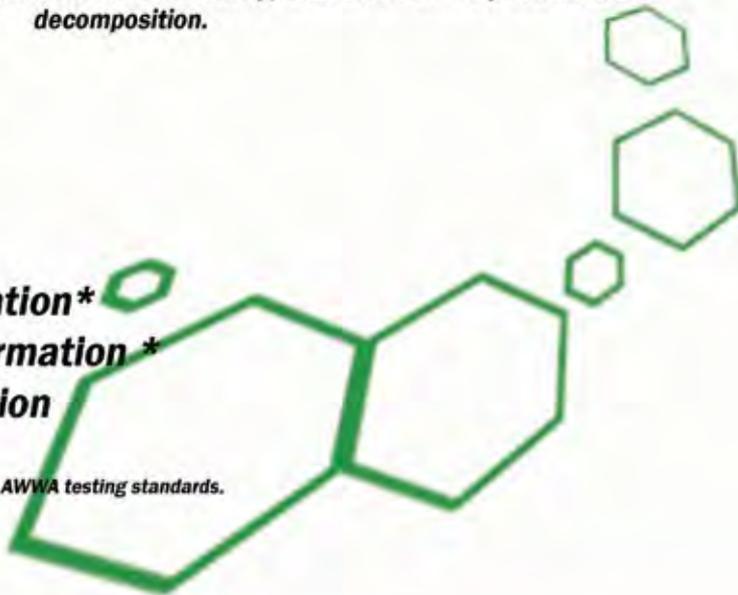
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# Meet Mel Damewood III

▶ Chair-Elect for the Pacific Northwest Section of AWWA

**You have been employed with the Eugene Water and Electric Board (EWEB) for 29 years. Tell me about your time there, and any successes of your lengthy career.**

*MD:* I began my career at EWEB as a staff engineer in 1988. In looking back at successes at EWEB, it is difficult to highlight just one or take sole credit. Success is built upon first, our predecessor's vision and ingenuity, and there were a lot of smart decisions made by EWEB in its early years. During my tenure, EWEB recruited a lot of talented people, who work as a team, regardless if you are in engineering, operations, or in support service roles in order to deliver water and electric services in a safe, reliable and cost effective manner.

With that said, one area that I feel proud about is the development of a solid Capital Improvement Program and obtaining the funding to support the work that has proven integral in renewing and replacing our aging infrastructure.

**As of August 2016 you have taken on the role of the Chief of Engineering and Operations, what does that role entail?**

*MD:* My current position can be summed up fairly simply. I am responsible for managing the assets of our water and electric utility. We have about one billion dollars of assets, and about 275 staff members to support the operation of those assets. My role deals with a lot of ambiguity, with the political drivers, community needs, regulations, and the realities of need versus funding availability, my goal

is to cut through the ambiguity and provide clear direction to the vision of our utilities future. Also, top of mind is having a pulse on our community – realizing that the Eugene area has lower median incomes than the rest of the Pacific Northwest, so working on affordability of our services for our customers is important.

**Why did you decide to take on the position of Chair-Elect for the AWWA Pacific Northwest Section?**

*MD:* AWWA has provided me with a lot of leadership opportunities that I have been privileged to take advantage of in the development of my career. It also provides good resources and camaraderie for EWEB, through its educational and collective industry expertise, as well as lasting networking relationships that provide great mentorship to water professionals. Running for Chair-Elect is my way of giving back to an industry that has given me so much.

**Tell me about the history of your involvement with AWWA.**

*MD:* I started going to subsection meetings as an engineering intern in the early 1980s. There were no Young Professional groups back then, so it was intimidating getting started in a profession that was made up of mostly seasoned professionals. But I quickly realized that they were interested in my development and brought me along. It is a caring profession.

That led me through subsection roles, including Chair of the Emerald Empire Subsection, now Cascade to Coast in the 1990s. I actively

participated in the Oregon Water Utilities Council and served through its leadership to Chair OWUC. This led to a position on the State of Oregon's Drinking Water Advisory Council as AWWA's representative for a few years. I also served as the Oregon/Idaho Trustee for PNWS from 2013-2014.

**If you weren't working as an engineer you would be a....**

*MD:* I would dream of becoming an engineer again! I have been in a management role for 20 years, and as I have progressed along that timeline, the further from true engineering I have gotten. There are days where I miss being directly part of the planning, design and construction of critical facilities. That passion is what drove me into engineering in the first place.

**When you are not working, what would we find you doing?**

*MD:* I am a hunter, and I enjoy the outdoors. Over my career, I rode my bike to work on a daily basis for about my first 20 years at EWEB. I also enjoy playing golf.

**What are your plans for the summer months?**

*MD:* I am planning two major activities. In the late spring, my wife and I will travel the western states to see national parks and monuments in Oregon, California, Arizona, Utah and Idaho. I also hope to hit several golf tournaments held by subsections to support them, talk to them about their needs and find out how I can serve them in my role on the PNWS Board. 

  
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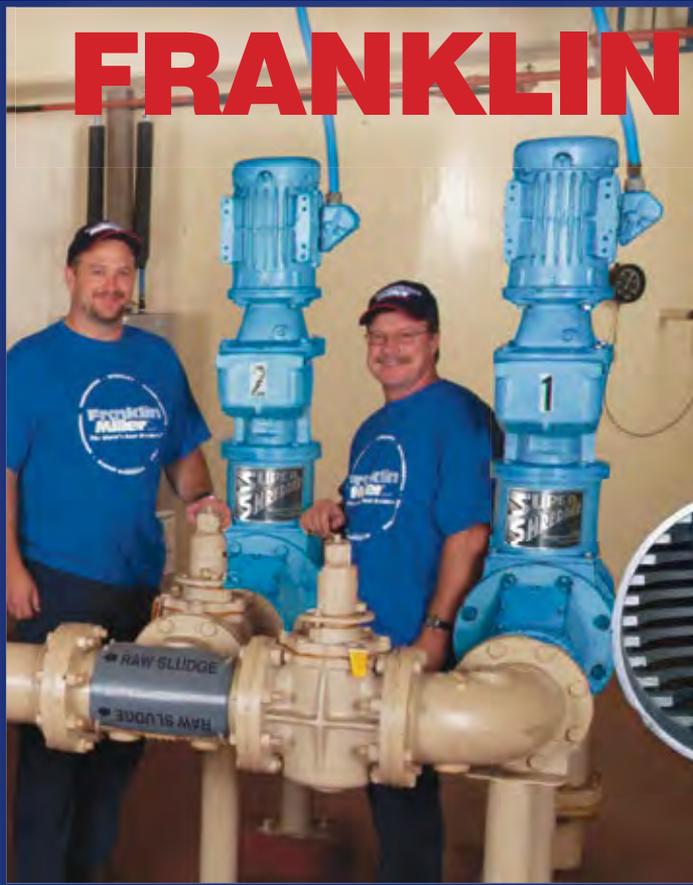
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## A Look Back in Time

My career in the water industry has now spanned over 36 years, it has gone by so fast, but I still remember when I started my career at the Medford Water Commission in January of 1981 as a Serviceman I on probation which means I'm the newest guy, lowest on the totem pole, shovel hand, equipment driver (only to the job) truck cleanup guy and so on. I had no knowledge of anything water because at that time I was a carpenter building houses. But nonetheless, my career in water had started, so I felt I had to learn all I could about water distribution.

After a few years working as a distribution system operator, the manager of our utility, Ed Olson, offered up Water Certification classes for anyone that wanted to take them. As always I took the opportunity to learn, and a co-worker and I attended classes to get our Oregon Water Distribution Level I Certification. Again, time went by so fast and the next thing you know its 1996 and I was hired as the Operations Superintendent for the Medford

I consider myself a lucky guy to have picked this industry for my professional career.

Water Commission, by which time I had my Water Distribution Level 4 Certification and we were setting up classes for the Southern Oregon Sub-Section to train operators and pass the Certification exams.

It was in 1995 that I first started volunteering in the Pacific Northwest Section as the Safety Committee Chair for the Southern Oregon Sub-Section. A short time later I attended my first PNWS Sub-Section Advisory Committee meeting and met a lot of outstanding people who were volunteering time to make the Pacific Northwest Section work. I wanted to do my part so I put my hand up when they asked for a volunteer to be the coordinator for the Oregon region.

"Bam" my time with the Section had started. Now 22 years later it has

been one of the best opportunities that ever came my way. I would encourage any of you who want to get involved with PNWS-AWWA to go to a meeting and check it out, get involved and hang on, because there is just something about it that once you get started you can't stop!

My career is still in the water industry, and though my place of employment has changed, I've now been up in Washington at the North City Water District as the Operations Manager for nearly 11 years, I still meet the best people in the business and I consider myself a lucky guy to have picked this industry for my professional career. 

Denny Clouse,  
Past Chair PNWS (2006-2007)



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## 2020 Committee

Do you remember the first time you thought about a career in the water industry? Was there someone there to encourage you, or help you move your career forward?

The 2020 Committee is dedicated to engaging the future professionals of the water industry, to help employers find and retain talent and to support students and Young Professionals in finding fulfilling work.

Here are some ways you can contribute to the 2020 initiative and help support the future generations of the water industry.

### Participate in a Career Fair

Many of our subsections are actively involved by attending career fairs in their area. The 2020 Committee has even provided each subsection with an easy to transport career fair kit called a 'Booth in a Box.' The box includes, Think Water Think Career brochures, a PNWS tablecloth, tabletop displays, a large banner to display alongside the table, membership applications and PNWS pens.

You can even reserve 'Eddy' the mascot from AWWA National. You and your team members will turn heads in this costume! To reserve 'Eddy' contact JoAnn Galindo at [jgalindo@awwa.org](mailto:jgalindo@awwa.org). JoAnn will also send you AWWA Journals, bags and additional catalogs.



### Use the 'Events Toolbox'

There are several great ideas in the events toolbox that can assist you in organizing an event in your subsection. You could arrange a facility tour, throw a networking event at a local restaurant, brewery or park, or host a Lunch 'n Learn. Download this guide from the 2020 Committee webpage and start putting together your event today.



### Like the Young Professionals Facebook page

Get the latest information about events around our Section from the PNWS Young Professional Facebook page. Keep up to date on local trainings, networking events and conference activities. Help us reach our goal of 500 followers! Check us out at [www.facebook.com/PNWSofAWWAYPs](http://www.facebook.com/PNWSofAWWAYPs).

We are currently seeking help on the 2020 Committee for a Secretary/Website position as well as next years' Co-Chair. If you are interested, please contact us! Thank you for supporting the future of the water industry.

For more information on how you can get involved with the 2020 Committee contact Chair Julie Smitherman at [Julie.smitherman@ashland.or.us](mailto:Julie.smitherman@ashland.or.us) or Co-Chair Kevin WycKoff at [KevinwycKoff@gmail.com](mailto:KevinwycKoff@gmail.com)



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## Customer Service Committee

The Pacific Northwest Section Customer Service Committee is busily preparing to roll out the AWWA Customer Service Committee updated training materials! Development has begun to add activities to reinforce the course work by using team-building exercises that are being submitted for Continuing Education Units (CEU) assignments. One big change in the course structure is that they will now be one-day classes. The training sessions can easily be scheduled for a single class or all can be held over a three-day period of time providing more flexibility.

Scheduling should begin in the late spring. A list of proposed training locations for 2017 and 2018 can be found below. If your area is not currently listed please contact the committee to schedule a training session near you.

### New Course Material:

- Building Customer Relationships Course 1
- The Business of Customer Service Course 2
- Utility Industry Operations Course 3

### Proposed 2017 Customer Service Training Program schedule (New Course Material)

- South Sound Subsection, WA Course 1
- Spokane, WA Course 1 & 2
- Central Washington Area Course 2 & 3
- King County, WA Course 2
- Walla Walla, WA Course 2
- Boise (Area), ID Course 1 & 2

### Proposed 2018 Customer Service Training Program schedule South Sound Subsection, WA Course 2 & 3

- Spokane, WA Course 3
- King County, WA Course 3
- Walla Walla, WA Course 3
- Boise (Area), ID Course 3

### PNWS-AWWA 2017 Kennewick Conference, May 3-5, 2017

The Customer Service track for the 2017 PNWS-AWWA Conference is scheduled to take place in the afternoon session on Thursday, May 4. Tonya Reiss will be our moderator for the session. Please come and join us for any, or all, of these presentations.

- Customer Service & Operator's Perspective: John Roth, Clark Public Utilities
- A Better Path to Advanced Metering Infrastructure: Brett Foreman, Water Smart Software
- Setting Up a Customer Sampling Program – One Utility's Experience: Yone Akagi, PE, Portland Water Bureau
- Achieving Good Internal Customer Service is Essential in Every Organization: Tonya Reiss, City of Spokane, Water & Hydroelectric Services Supervisor

For updated schedules check out the PNWS Customer Service Committee Website at [www.pnws-awwa.org/committees](http://www.pnws-awwa.org/committees).

If you are interested in finding out more about a course or scheduling the Customer Service Series in your area please contact Gayle Renzelman, Committee Chair, [grenzelman@ci.moscow.id.us](mailto:grenzelman@ci.moscow.id.us), (208) 883-7106. 

## Women in Leadership Seattle Committee



We want to thank everyone who attended the event.

On Feb. 15, 2017 more than 160 women in all stages of their careers attended the Seattle Women in Leadership Symposium. The attendees learned from, and were inspired by, the speakers they listened to throughout the day. The symposium included keynote speakers, breakout sessions and a panel discussion. All enjoyed the day of networking, and we want to thank everyone who attended the event. We will share more stories and photos of the day in the next publishing. 

### Young Professionals Committee

The Pacific Northwest Young Professionals (YPs) are a dedicated group of young professionals and students who are excited to engage with all that AWWA offers. Check our Facebook page for the latest events providing powerful leadership skills and technical information to enhance your career, and network with professionals and students in the water industry.

Please like our Facebook page PNWS of AWWA Young Professionals, visit the updated Committee webpage, or contact YP Committee Chair Dan Reisinger by email at [dreisinger@carollo.com](mailto:dreisinger@carollo.com) for more information.

#### PNWS YP Events

The section and sub-section YP Committees planned great events this winter to learn from site tours, connect at socials, and interact with students, including:

- Boise State University Student Seminar – February 6, 2017 in Boise, Idaho
- Networking Happy Hour – February 9, 2017 in Portland, Oregon
- Tour of PumpTech Facilities – February 22, 2017 in Canby, Oregon
- Tour of NW Pipe Company Facilities – March 9, 2017 in Portland, Oregon

Looking for more events? We've gone digital, and any and all upcoming PNWS YP events are now published on our Facebook page PNWS of AWWA Young Professionals. Please follow us for the latest on site tours, networking events, scholarships, scavenger hunt, and all the other fun YP events during the year.

#### Boise State University Civil Engineering Club Seminar

On February 6, the Southwest Idaho Subsection partnered with local PNCWA members to present to the Boise State University Civil Engineering Club on the water industry. Approximately 30 students attended the meeting where information was shared about scholarships, volunteer opportunities and other opportunities for students to get involved now in AWWA as well as information about future career



Students and panelists interact at Boise State University Civil Engineering Club seminar

opportunities in the water industry. This is the second year presenting to the group and the Southwest Idaho Subsection is working to build an ongoing relationship with BSU.

#### Fresh Ideas Project Track

The Fresh Ideas Poster Competition is intended to provide a unique opportunity for all YPs, not just students, to present their water and wastewater research to a diverse audience, but recent years have been dominated by graduate student submissions. To make the competition more inclusive, it has been expanded to include two tracks:

- Research Poster Competition: the traditional competition highlighting the best water-related research in the Northwest. The winner will represent PNWS at ACE 2017 in Philadelphia, Pennsylvania.
- Project Poster Competition: New! Individuals or teams present non-research based topics (i.e., student design project, O&M techniques, project summary and update, etc.). Application, submittal, and scholarship information can be found on the PNWS-AWWA website or on our Facebook page. Interested students need to submit with an application and abstract describing the subject of the poster presentation to [jminer@carollo.com](mailto:jminer@carollo.com). The deadline for submitting is **April 10, 2017**. Scholarships will be awarded based on need and order received, so students are encouraged to apply early. With these changes we hope to make the 2017 Fresh Ideas Competition in Kennewick, Washington one of the most popular competitions yet!

#### PNWS Student Outreach and Career Fairs

School is back in session and we need your help engaging students in PNWS. Please consider hosting an event or attending a career fair at a local school or your alma mater. Career Fairs are a very easy way to contribute to the continued success of our organization. We have our shiny new 'Booth in a Box' that makes it easy, so now is the time to make great use of those professional looking displays and handouts. This fall we created a list of the schools that will be our biggest priority to engage that can be found at the PNWS YP Committee webpage.

Please contact Kevin Wyckoff via email at [kwyckoff@pnws-awwa.org](mailto:kwyckoff@pnws-awwa.org) or your subsection leadership to get involved with reaching out to students in your area.

#### Follow us on Social Media

The Young Professionals Committee continued a steady presence on social media throughout the year. The Facebook page is updated at least weekly with upcoming events, job openings, and training announcements. Visit our Facebook page: PNWS of AWWA Young Professionals to stay connected with us!

To submit information on events and/or pictures, please contact Kristen Brastad at [kristen.brastad@gmail.com](mailto:kristen.brastad@gmail.com).

#### Participate and Stay Connected!

Want to join the YP Committee? There are many ways you can help: event planning, leadership roles, career fairs, scavenger hunt planning, helping to get a student chapter going, and much more! Contact YP Committee Chair Dan Reisinger for more information [dreisinger@carollo.com](mailto:dreisinger@carollo.com). 

## Oregon Water/Wastewater Agency Response Network (ORWARN) Committee Report

### Save The Date!

On April 4, 2017, ORWARN will be presenting a full day track at the Eastern Oregon Operators Conference at the Pendleton Convention Center. The conference is jointly organized by AWWA and PNCWA. ORWARN will also be holding a yearly membership meeting and election of board members that day. For more information, please email [easternoregonregion@gmail.com](mailto:easternoregonregion@gmail.com).

ORWARN is looking for a new board member. If you are interested, please contact Mary Ellen Collentine (Chair) at [maryellen.collentine@portlandoregon.gov](mailto:maryellen.collentine@portlandoregon.gov) or 503-823-7474.

ORWARN is also moderating an early bird session and half-day track at the PNWS AWWA Conference in Kennewick, May 3-5, 2017. A TriState WARN meeting will be held on Thursday, May 4 at 5:00 pm in Room B with IDWARN and WAWARN. The three WARN committees discuss topics of mutual interest and plan for joint events. All are welcome to attend.

### Past Conference Events

ORWARN sponsored a half-day track at the OAWU (Oregon Association of Water Utilities) Conference March 10, 2017 in Sunriver, Oregon. Board Member Chris Wanner and Portland Water Bureau Emergency Manager Jamaal Folsom presented information about WARN, Resource Typing, and NIMS/ICS 100/200/700/800.

ORWARN sponsored a half-day tabletop exercise at the Cascade to Coast Short School on March 15, 2017 in Eugene, Oregon. Board Members Jeremiah Hunt and Chris Wanner helped organize and conduct the exercise while Chris Miccolis and Mary Ellen Collentine acted as roving facilitators.

### ORWARN works with EPA to sponsor two workshops

ORWARN, IDWARN, and WAWARN worked with EPA to host a workshop dedicated to exploring mutual aid



EWEB crews in Idanha

and assistance. The workshop was held in Pasco, Washington on November 9, 2016. Water and wastewater utilities, water and wastewater state regulators, and emergency management representatives discussed procedures to activate existing interstate mutual aid agreements and strategized on ways to work with state emergency management to streamline intrastate mutual aid.

ORWARN members along with utilities and emergency management representatives worked with EPA to hold a workshop in Portland, Oregon on February 15, 2017. Portland Water Bureau and Portland Bureau of Emergency Management jointly hosted the workshop. The workshop brought together representatives of water and wastewater utilities, emergency managers, police and fire. Each sector presented on their roles and responsibilities in activation for a major emergency and then discussed interdependencies and ideas for working together. Several action items came from the workshop for further discussions.

### ORWARN works to improve operations

ORWARN has been working with EPA and Horsley Witten to improve and build upon the lessons learned from the tabletop exercise conducted at the Spring 2016 ORWARN Conference. ORWARN, Horsley Witten and EPA have held two improvement-planning calls and ORWARN is incorporating ideas from the discussions into an action plan.

### ORWARN Wastewater Field Exercise

ORWARN members conducted a field exercise in Redmond, OR on March 21 and 22, 2017 hosted by the City of Redmond. The City of Portland sewer maintenance crews brought over equipment for a sewer lining project on a Redmond sewer and practiced requesting and responding to mutual aid according to the signed Mutual Aid Agreement and Operational Plan.

### Website Upgrades

ORWARN members participated in an EPA sponsored webinar in January 2017 highlighting the inner organization of four WARN websites that have successfully worked under multiple activations. ORWARN is working with a web developer to incorporate ideas learned from the webinar to better serve members and facilitate communications between members for resource requests during an emergency.

### Membership and Outreach

ORWARN currently has 124 water and wastewater utility members and 14 associate members. One of the goals for 2017 is to reach out to County and State emergency managers and regulators to join ORWARN as associate members.



EWEB crews in Idanha

ORWARN's monthly board meetings are held outside the Portland metro area several times a year in order to connect with members. The March 15, 2017 board meeting was held in Eugene during the Cascade to Coast Short School. The yearly membership meeting and election of officers will be held in Pendleton, Oregon on April 4, 2017.

### ORWARN Activations – WARN Works!

With the wild winter weather Oregon has been experiencing this year, several utilities have offered assistance to other utilities or been called upon to aid another utility.

Eugene Water and Electric Board (EWEB) and the City of Salem crews jointly responded to a request for assistance from the City of Idanha, Oregon in January. The city had several feet of snow covering their infrastructure and needed help with snow removal, leak detection and repairs. EWEB also responded to a second request for help from Idanha.

EWEB offered assistance to Portland Water after Portland experienced 92 main breaks in January with the cold weather and snow. This was almost 50% of the breaks experienced in a year all in one month for the utility.

The Oregon Office of Emergency Management received a request for assistance for the City of Nyssa by way of Malheur County and passed it along to ORWARN.

Corbett Water District requested to borrow equipment from Portland Water.

City of Klamath Falls broadcast a request for the loan of a sewer pump and received a response.

A listing of contact information for ORWARN officers can be found at [www.orwarn.org](http://www.orwarn.org).

Alternately, feel free to get in touch with the following representatives:

- Mary Ellen Collentine, Chair  
[maryellen.collentine@portlandoregon.gov](mailto:maryellen.collentine@portlandoregon.gov)
- Chris Wanner, Vice Chair  
[Chris.wanner@portlandoregon.gov](mailto:Chris.wanner@portlandoregon.gov)
- Gina Johnson, Secretary  
[Gmjohanson@klamathfalls.city](mailto:Gmjohanson@klamathfalls.city)

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## Idaho Water/Wastewater Agency Response Network (WAWARN) Committee Report

What would you do without your water? A resource that is so critical in our daily lives is often taken for granted that it will be available without interruption. In the event of a natural or human caused disaster, water is one of the most critical resources needed to begin moving forward.

Idaho's Water-Wastewater Agency Response Network, referred to as WAWARN is a formalized system of "utilities helping utilities" to address mutual aid during emergency situations. WAWARN's mission is to promote statewide emergency preparedness, disaster response, and mutual assistance for public and private water/wastewater utilities.

Utilities require specialized resources to recover or sustain operations during disasters. Utilities must provide their own support

until state and federal resources are available. Government response agencies and critical infrastructure rely on water supplies. There is **no** charge for membership. All member utilities volunteer their time to develop and maintain the network.

The projects' infrastructure consists of a secure web-based data bank of available resources and a practical mutual aid agreement designed to reduce bureaucratic red tape and get the resources you need quickly in an emergency. Periodic planning meetings and mutual aid agreements established before disasters occur allow for quick access to resources that will be eligible for federal reimbursement at a later date. The agreement allows for utilities to share equipment, personnel, and other resources needed to

respond effectively to a crisis while also addressing necessary issues such as indemnification, workers' compensation, and reimbursement. All members can request or send resources during an emergency but are not obligated to do so if they decide not to for any reason.

No utility is too big or too small to benefit from WAWARN. Each additional member enhances the probability of a successful response to an emergency. Every member has equal rights regardless of the size of the utility.

Is your community a member of WAWARN? Membership in WAWARN meets the Department of Homeland Security requirements and compliments your communities other emergency response plans. For more information visit [www.wawarn.org](http://www.wawarn.org). 

WAWARN's mission is to promote statewide emergency preparedness, disaster response, and mutual assistance for public and private water/wastewater utilities.



### Thinking of water in new ways

The future of water means getting creative. We're helping agencies explore fresh solutions to innovate, integrate and collaborate in order to fully tap our water resources.

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## Water Resources Committee

The mission of the PNWS-AWWA Water Resources Committee (WRC) is to develop educational and professional networking opportunities, and to share experiences and expertise among water providers and other water stakeholders in the region of the Pacific Northwest.

### Lunch-n-Learn Webinar

The Water Resources Committee hosted a lunch-n-learn webinar in February about assessing water availability in Washington State. Our speaker, Toni Smith of Landau Associates, shared information about the paradigm shift in assessing water availability in the state of Washington, presented some early local government adaptations, and discussed implications for municipal purveyors and future

rural development. Our next lunch-n-learn webinar will be held in the fall.

### Tr!-Cities 2017

The abstracts are in, and technical sessions for Tr!-Cities 2017 have been finalized. Please join us for two technical sessions:

- Conservation as a source of supply (co-sponsored with the Water Conservation Committee)
- Municipal water resource planning and climate change

### Join us for Planning Meetings

You are invited to share your ideas and interests for training topics and networking opportunities at our monthly planning meetings. You can take a peek at what we are up to in the meeting materials

section of the WRC Google site. We schedule a meeting room in the Portland Metro Area, but call-in numbers are provided for every meeting.

### WRC Leaders Sought

We are currently seeking PNWS members interested in leading the Water Resources Committee in the next few years. You can reach out to any member of the WRC leadership team using the contact information provided:

- Chair: Jill Hoyenga, Eugene Water & Electric Board, [jill.hoyenga@eweb.org](mailto:jill.hoyenga@eweb.org)
- Vice Chair: DeEtta Fosbury, GSI Water Solutions, [dfosbury@gsiws.com](mailto:dfosbury@gsiws.com)
- Past Chair: John Lambie, E-PUR, LLC, [jlambie@e-purwater.com](mailto:jlambie@e-purwater.com)



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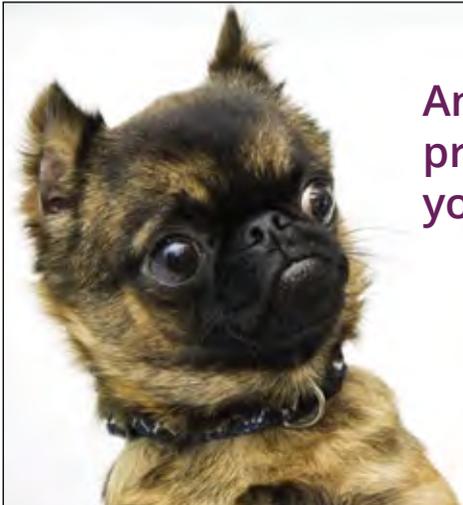
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## Southern Oregon Subsection

### December 1, 2016 Subsection Meeting at Roseburg Water Treatment Plant



Stuart Greenberger P.E. presented a program on "Cathodic Protection Galvanic and Impressed Current," and there were 30 people in attendance from plant operators to other water industry professionals from Medford, Phoenix, Ashland, Central Point, Myrtle Creek, Roseburg, Winston and Glide. We also had engineers from RH2 and West Yost. Murray, Smith & Associates, Inc. sponsored the lunch that was provided.

Everyone from the PNWS is always welcome at our meetings. If you would like to be added to our e-mail list or would like more information about our Subsection contact Julie Smitherman at the e-mail address below. Our meetings are at 10:00am on the first Thursday

of every third month in March, June, September and December. When the weather allows, we generally play a round of golf in the afternoon following the meeting at a local golf course for anyone that is interested.

### Save The Dates! Southern Oregon Subsection 6<sup>th</sup> Annual Water For People Golf Tournament



The Southern Oregon Subsection of AWWA invites you to be a part of our 6<sup>th</sup> Annual Water for People Golf Tournament. The tournament will be held on Saturday August 12, 2017 at 8:00 am, at the Stone Ridge Golf Course in Eagle Point, Oregon located at 500 Antelope Road. Registration opens in early April, so watch your email during that time for the registration and sponsorship link.

Participation in this event provides recognition and visibility for your company at the tournament, as well as the opportunity to support Water for People in their mission to provide safe drinking water and sanitation to developing countries across the world. If you are interested in being a sponsor for this exciting event, please contact Max Woody at 541-821-8878 or [max.woody@centralpointoregon.gov](mailto:max.woody@centralpointoregon.gov).

In addition to the golf tournament, the Southern Oregon Subsection will be hosting a BBQ on Friday, August 11, 2017 at 5:30 pm at the Stone Ridge Golf Course. Registrants are encouraged to attend the BBQ at no cost; however, a \$20 donation per attendee is greatly appreciated.

### Southern Oregon Water and Wastewater Short School September 12-14, 2017



The Southern Oregon Water and Wastewater Short School will be held September 12-14 at the Rogue Community College Table Rock Campus in White City, Oregon. Please save the dates and plan on attending this important educational event. We also plan on having a Young Professionals event on one of those evenings, more details to come. If you would like more information about this event or would like to be a sponsor or speaker, please contact President, Julie Smitherman at the contact information below.

For more information about how you can be involved in the Southern Oregon Subsection, aka 'Water Mafia' please contact Julie Smitherman at [Julie.smitherman@ashland.or.us](mailto:Julie.smitherman@ashland.or.us) or call 541-552-2062. [Facebook](#)

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### King County Subsection

It has been a busy winter at the King County Subsection (KCSS). We have had a focus on supporting and informing students about their future in the industry and the benefits of AWWA membership.

On January 9, 2017 the King County PNWS-YP's, PNWCA YP's were joined by several local "SPs" for Seattle University's Mentor Night. We helped promote the Section's 2020 Vision and connect students with information about the benefits of AWWA membership. We used our 'Booth-in-a-Box' for the event, complete with the 2020 Vision banner. There was a nice balance of students and mentors so each student was able to gain valuable knowledge and insights into the day-to-day needs of the water industry.



On January 19, 2017 the King County PNWS-YP's joined the PNWCA YP's for the University of Washington Civil and Environmental Engineering Career Fair. Josh Kennedy and Joanie Stultz represented King County at the event to promote the sections 2020 Vision and connect students with information about the benefits of AWWA membership. We used our 'Booth-in-a-Box' for the event, complete with the 2020 Vision banner.

Following the career fair, professional members from PNWS and PNWCA joined over 20 students from the University of Washington (UW) at a nearby restaurant for food and drinks, provided by the King County PNWS and PNWCA sections. We also had support from the UW student chapters' officers Tess Young and Stephanie Wei of AWWA-WEF, who helped advertise for the event in and around campus.

We look forward to joining together with the student chapter for additional events this year including a networking event this spring and several plant tours.

#### Future training/social events that are in the planning stages include:

- Best Tasting Water, Meter Madness and Hydrant Hysteria at the ACME Bowl in Tukwila scheduled for March 9, 2017
- Advanced Asset Management Workshop – April 2017
- Corrosion Workshop – Spring 2017
- ABSOLUT Spring Water for People Event, Spring 2017
- Customer Service Workshop – Summer 2017
- Service Truck Expo – Fall 2017

More information will be posted to our website as details/dates are firmed up. [FA](#)



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### Inland Empire Subsection

We just wrapped up our 13<sup>th</sup> Annual Truck Rodeo. This continued achievement was the idea of Frank Triplett. It started out in a parking lot, with a hot dog vendor, and an invite for people to show off their trucks. It was an opportunity to see what other area water districts were using and doing to make their jobs easier, and more efficient. Over the years it morphed into this huge event with contests, classes, and vendors. But it started out with one small idea. What if?

Sometimes we deal with negativity, or someone above us is telling us no. Sometimes it's a warranted no with reasons why it cannot work.

Sometimes it is just a "because I said so" no. I'm sure if the Truck Rodeo had started out as this huge over the top grandioso idea of what it actually is today, it would have never gotten off the ground. What it serves to teach us is that just one small thought, one small seed, has the opportunity to grow into something big.

Think in your daily life, personal and business, what you say no to, and think why. Make sure it is not because you're in a bad mood, or that the idea wasn't yours so it's no good. For the people that might be told no, one great piece of advice from a friend is this... what's the worst thing that can

happen if they say no? Don't let the idea of being told no prevent you from planting a seed, or presenting an idea that could grow into something big.

Frank Triplett was in a position where not too many people could tell him no. He was also the type of individual that wouldn't take no for an answer. He was a long time active member of the Inland Empire Subsection, and the Pacific Northwest Section. He passed away, age 66, on January 18. At his memorial reception, there was a picture of him and a quote, "And in the end, it's not the years in a life, it's the LIFE in the years."

– Abraham Lincoln. 

### Northwest Washington Subsection

The Northwest Washington Subsection will be sponsoring training for operators, engineers and managers in the spring/summer/fall of 2017. Events scheduled so far include:

#### Emergency Preparedness Workshop

Spring 2017, Olympic Peninsula. An overview of the planning, preparation and training involved in preparing for a wide variety of water utility emergencies. 0.6 – 0.7 CEUs TBD.

#### Pumps Workshop

Spring 2017, Brightwater, Woodinville, WA. 0.6 CEUs.

#### Basic Waterworks Workshop

Spring 2017, Olympic Peninsula. The workshop will provide an orientation to water utilities and water quality protection for new employees to the utility including treatment plant staff, distribution crews, office staff, engineers and others. 0.6 CEUs.

#### 2017 Western Washington Short School & Trade Show

Tuesday & Wednesday, June 6 & 7, 2017 @ the Lynnwood Convention Center, Lynnwood WA. The Short School is co-sponsored by the Northwest Washington Subsection, PNWS-AWWA and the Western Washington Region PNCWA-WEF. Registration will open in early April and a link will be posted on the Northwest Washington Subsection webpage. 1.2 CEUs.

The Annual Short School will include four to five concurrent classes on a variety of topics for water and wastewater operators, engineers and managers. Along with presentations, the Short School will also feature water and wastewater treatment plant tours (tour locations TBD) and a trade show for equipment manufacturers, service providers and consultants.

#### Reverse Osmosis Workshop

September 8, 2017, Anacortes, WA. The workshop will cover an overview of RO technology, pre and post treatment options, ways to minimize RO plant energy consumption and Washington State requirement for monitoring and reporting. This training is held bi-annually in conjunction with the Northwest Membrane Operator Association. 0.6 CEUs.

#### Water Treatment Workshop

Fall, Location TBD. 0.6 CEUs.

#### Distribution O&M Workshop

Fall, Location TBD. 0.6 CEUs.

For additional information or to sign up for email notification for these or any Northwest Washington Subsection workshops go to the subsection webpage on the Sections' website ([www.pnws-awwa.org](http://www.pnws-awwa.org)) or contact Jeff Lundt at [jeff.lundt@kingcounty.gov](mailto:jeff.lundt@kingcounty.gov) or 260-477-5582. 



# TR!-CITIES TR!-WATER

2017 PNWS-AWWA



## PNWS-AWWA Annual Conference

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- Three Rivers Convention Center



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## Conference Schedule

\*Location is Three Rivers Convention Center unless noted

### TUESDAY, MAY 2

**Registration & Information** 3:00 pm to 6:00 pm

### WEDNESDAY, MAY 3

**Registration & Information** 7:30 am to 6:00 pm

**Continental Breakfast** 7:30 am to 8:30 am

**Golf Tournament** 7:30 am to 2:00 pm

**Pre-Conference Seminars** 8:30 am to 4:30 pm

**Lunch** 12:00 pm to 1:00 pm

**Tapping and Meter Madness Finals** 5:00 pm to 7:00 pm

**Fun Night Dinner** 7:00 pm to 10:00 pm

### THURSDAY, MAY 4

**Registration & Information** 7:00 am to 6:00 pm

**Continental Breakfast** 7:00 am to 9:00 am

**Opening Ceremony** 9:00 am to 10:30 am

**Vendor Exhibits** 10:00 am to 5:00 pm

**Water for People Auction** \*Vendor Hall 8:00 am to 5:00 pm

**Historical Display** 8:00 am to 5:00 pm

**Vendor Visit & Lunch** 10:30 am to 1:00 pm

**Fresh Ideas Poster Contest** 10:30 am to 1:00 pm

**Technical Sessions** 1:30 pm to 5:00 pm

**1st Time Attendees Meet & Greet** 5:00 pm to 6:00 pm

**Hospitality Suites at Convention Center** 7:00 pm to 10:00 pm

### FRIDAY, MAY 5

**Continental Breakfast** 7:00 am to 8:30 am

**Registration & Information** 7:00 am to 4:00 pm

**Technical Sessions** 7:30 am to 5:00 pm

**Vendor Exhibits & Lunch** 10:30 am to 1:00 pm

**Water for People Auction** \*Vendor Hall 8:00 am to 3:00 pm

**Water for People Auction Reception** 5:00 pm to 6:30 pm

**Best Tasting Water Contest** 5:00 pm to 6:30 pm

**Public Information Award Presentations** 5:00 pm to 6:30 pm

**Banquet** 6:30 pm to 9:00 pm

## Tri-Cities TR!-Water 2017

The Tri-Cities welcomes you to the Pacific Northwest Section of the American Water Works Association Conference taking place May 3-5, 2017. Water is essential to our communities, agriculture, and recreation in the Tri-Cities. We invite you to an enjoyable week of technical education, networking, discovery and fun.

Located in Kennewick, Washington, the Three Rivers Convention Center is a short distance to conference hotels and restaurants. Spend your time walking, hiking, or biking along Columbia Park on the Sacagawea Heritage Trail.

## Conference Highlights

### • Opening Ceremony

Join us in the Three Rivers Convention Center on Thursday morning for an exciting and inspiring opening ceremony. Our Chair Lacey Goeres-Priest, a visiting dignitary and our AWWA President-Elect Brenda Lennox will address the conference. There will be awards presented in the areas of Public Information and Engineering as well as the doling out of \$27,000 worth in scholarships. To top it off, there will be entertainment with a Tri-Cities ambiance.

### • Technical Program

Training starts off Wednesday morning with pre-conference programs offered by the Water Resources, Distribution, Engineering and Water Treatment Committees. Register early for these sessions.

Planning to join the conference later? With eight concurrent tracks on Thursday and Friday, there will be plenty of CEU-approved topics from which to choose. If you are an early riser, consider attending the early bird sessions Thursday and Friday morning.

*Back again this year!* We are offering an all-day wastewater track! Be sure to check it out during the session on Friday in Room B.





# Activities and Competitions

## • Tapping, Top Ops, Meter Madness, and Gimmicks and Gadgets

What is a conference without some fun activities to enjoy with colleagues and friends? You are invited to check out all the competitions between the best our 12 subsections have to offer. The Tapping Contest, Meter Madness and Fun Night Dinner all take place on Wednesday.



Also, find out who has the best water in the region during the Best Tasting Water competition Friday night. Interested in new gadgets? Watch the Gimmicks and Gadgets demonstration for new ideas. Think you know everything about the water industry? Test your knowledge against the Sections top competitors during the ever-popular Top Ops.

## • Silent auction in support of Water For People



Do your Mother's Day shopping at the Water For People auction and reception on Thursday and Friday. Be sure to stay close to the items you want, because you could be out-bid during the last frenzied minutes before the close of the auction on Friday evening prior to the closing banquet.

## • Golf Tournament

Canyon Lake Golf Course is the location for this years' golf tournament. Located in South Kennewick, the course is rated 4 and a half by Golf Digest, making it the highest rated golf course in the Tri-Cities and it shares the highest ranking in Washington State. Come out and network on May 3; check-in opens at 6:30 am with a shotgun start happening at 7:30 am. Tournament entry fee is \$90 per person and it includes the following; driving range, breakfast burrito, two drink tickets, tee prize, cart, a prime rib and salmon lunch and raffle tickets.



## • The PNWS Go! Scavenger Hunt

Show off your Pokemon Go location-based augmentation reality game skills at the PNWS Go! Scavenger Hunt event. Open to everyone this year, the fun begins early Tuesday morning and ends on Friday. Visit sponsored vendors, meet people and receive the codes you need to input into the smart phone app. Complete the entire Scavenger Hunt and your name will be entered to win one of three family destination vacations. Prizes will be awarded on Friday during lunch in the Vendor Hall. *You must be present to win!*



## • Fun Night

Come celebrate Tri-Cities, Tri-Water during Fun Night on Wednesday at the Three Rivers Convention Center from 7 pm to 9 pm following the Tapping and Meter Madness competitions. Connect with old friends and make some new ones over drinks and hors d'oeuvres. The activities include a cigar tent, wine mixing, and getting down to the funk and R&B sounds of Copastetic.

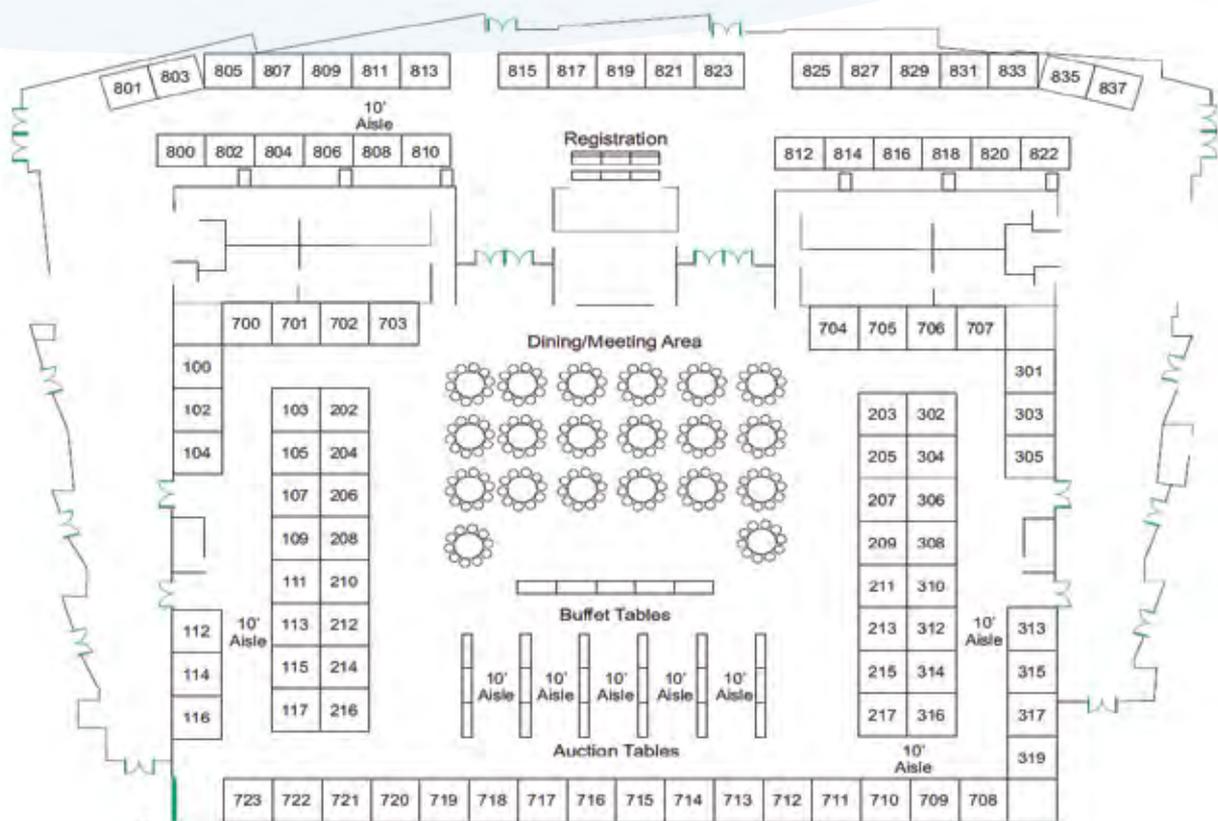
## • Hospitality Suites

Thursday after dinner with your favorite consultant, head back to the convention center for some networking and food and beverages in Three Vendor/Consultant themed hospitality suites. We will have a shuttle service that will be taking you back to your hotels at the end of the evening – this is a free service!

## • Banquet

The conference closes with the Awards Banquet on Friday, May 5, just after the Water For People Auction Reception and Best Tasting Water Contest. The Section will award its highest honors for volunteerism and support of the water industry. The gavel will also be passed from Section Chair Lacey Gores-Priest to Chair-Elect Dan Kegley. Don't miss it!

# Vendor List & Map



- Aclara
- American Ductile Iron Pipe Company
- AMERICAN Flow Control
- American Leak Detection
- Ameron Water Transmission Group
- Badger Meter
- BergerABAM
- Bonneville Power Administration  
Energy Smart Industrial
- Building Crafts, Inc.
- Century West Engineering
- CIMCO
- Consolidated Supply Co.
- Correct Equipment
- CST Storage
- Davis Sales
- DN Tanks
- Ductile Iron Pipe Research Association
- EJ
- Farwest Corrosion Control Company
- FERGUSON WATERWORKS
- Ferguson Waterworks Meter & Automation Group
- Frank J. Martin
- General Pacific
- Gutermann, Inc.
- H.B. Jaeger

- H.D. Fowler Co. Inc.
- HACH Company
- Hasa, Inc.
- HIPPO Multipower
- Hungerford & Terry/TEC
- Innovyze
- JBI Water & Wastewater
- JCM Industries, Inc.
- J-U-B Engineers, Inc.
- Keller Associates Inc.
- Lamons
- Loprest Water Treatment Company
- Measurement Technologies, Inc.
- Mortenson Construction
- Mt Baker Silo
- Mueller Company
- Mueller Systems
- Murray, Smith & Associates, Inc.
- Northstar Chemical
- Northwest Pipe Co.
- Owen Equipment
- PACE Engineers, Inc.
- Pacific Test and Measurement
- Parametrix
- PCE Pacific, Inc.
- PumpTech Inc.
- Pure Technologies U.S.

- Ranney Collector Wells - Layne
- RH2 Engineering
- Romac Industries Inc.
- Rosemount Analytical
- Sensus a Xylem brand
- Shannon & Wilson
- SIGMA CORPORATION
- Specialty Controls Inc.
- Structural Technologies/VSL
- SUEZ Water Advanced Solutions
- Sybis LLC
- Tank Industry Consultants
- TEKLEEN/TEC
- The Ford Meter Box Company
- Thompson Pipe Group - Flowtite
- Trindera Engineering
- Urecon Pre-Insulated Pipe
- US Pipe
- Victaulic
- Vision Municipal Solutions
- VisiPipe LLC
- WA State Dept of Health
- Wachs Utility Products
- WaterTrax
- Whitney Equipment Company, Inc.
- Wilson Engineering, LLC

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# Technical Program • Wednesday, May 3

	All Day Seminar	Morning Pre-Conference Seminar		Mid-Day Seminar
Room	A	C	D	G
<b>Host Committee</b>	<b>Central WA Subsection</b>	<b>Distribution</b>	<b>Engineering</b>	<b>Water Treatment</b>
<b>Moderator</b>	<b>Jessica Shaw</b>	<b>Jacki Masters</b>	<b>James Konigsfeld</b>	<b>Scott Johnson</b>
<b>8:30 - 12:00</b> <i>With two 15-minute breaks or three 10-minute breaks</i>	<b>Aquifer Storage and Recovery (ASR) Technology Overview, Applications and Benefits, and Project Development Needs</b> - Kenny Janssen	<b>Meeting the Challenges of Water Supply Resiliency in the Pacific Northwest: Consolidating and Transferring Water Rights to More Efficient Production Wells</b> - Derek Holom  <b>The Quad Cities Water Right - A Collaboration of the Cities of Richland, Pasco, Kennewick and West Richland</b> - Molly Reid	<b>Main Replacement Selection Methodology</b> - Sarah Alton (WDOE CEUs)  <b>Transmission Condition Assessment</b> - Nathan Endicott (WDOE CEUs)	
	<b>Pacific Northwest Aquifer Storage and Recovery (ASR) Regulatory Summary and Permitting</b> - Dave Nazy	<b>Estimating Groundwater Resources Of The Republic Of Marshall Islands</b> - Brandon Barkey	<b>Making The Most of Your CIP Budget: Lakewood Water District's Approach To Annual Water Main Replacements &amp; Rehabilitations</b> - Marshall Meyer (WDOE CEUs)	<b>Travel to Treatment Plant</b> 9:30am - 10:00am
	<b>Aquifer Storage and Recovery (ASR) Engineering and Design Considerations</b> - David Kuhns	<b>Groundwater Replenishment With Purified Water Injection Provides Drought Storage and Environmental Benefits</b> - Todd Reynolds	<b>Adding More Voices to Decisions: How to Successfully Turn a Triple Bottom Line to an Eleven Bottom Line Approach</b> - Corianne Hart	<b>City of Kennewick's Columbia River Water Treatment Plant Tour</b> 10:00am - 12:00pm
	<b>Aquifer Storage and Recovery (ASR) Operations and Maintenance</b> - Joel Cary	<b>Well Design for Optimal Efficiency By Understanding And Minimizing Well Losses At Source</b> - Michael Kenrick	<b>Easy As 1, 2, 3: Coordinating One Site, Two Contractors, and Three Owners</b> - Corianne Hart (WDOE CEUs)	
	<b>Aquifer Storage and Recovery (ASR) Alternative Applications and New Frontiers</b> - Jason Melady	<b>A Tale of Two Wells: Reconstruction of Two Hand Dug Caisson Well Stations</b> - Joseph Foote	<b>Bend's New 10-mile High Pressure Raw Water Transmission Pipeline: Solutions for Permitting, Design, and Construction</b> - Bryan Black	
CEUs		ID-0.3 / OR-0.3 / WA-0.3	ID-0.3 / OR-0.3 / WDOH-0.3 / WDOE-0.2	
<b>12:00 - 1:00</b>	<b>Lunchbreak</b>			<b>Lunch and travel to second tour</b>
	All Day Seminar	Afternoon Pre-Conference Seminar		Mid-Day Seminar
<b>Moderator</b>		<b>Leonard Englund</b>	<b>Russ Knutson</b>	
<b>1:00 - 4:30</b> <i>With two 15-minute breaks or three 10-minute breaks</i>	<b>Kennewick ASR Feasibility Assessment</b> - Lizzi Haas	<b>Have Your Cake: Operator's Guide to Sustainable Asset Management</b> - Ronan Igloria (WDOE CEUs)	<b>Your Best Laid Plans Will Change: Managing &amp; Resolving Change Orders During Construction</b> - David Seymour (WDOE CEUs)	<b>West Pasco Water Treatment Plant Tour</b> 1:00pm - 3:00pm
	<b>Kennewick ASR Facility Design and Construction</b> - David Kuhns	<b>Implementing a Risk-Based Main Replacement Strategy at EWEB</b> - Chris Irvin	<b>Managing Change in Pipeline Routing</b> - Joelle Bennett	
	<b>Kennewick ASR Pilot Testing Design</b> - Phil Brown	<b>Northshore Utility District's Approach to the Condition Assessment of Bar Wrapped Pipe</b> - Michelle Kerr (WDOE CEUs)	<b>Using Line-stops To Create Rural Water Service Zones From The Old 14-inch Transmission Main</b> - Dan Johnston	
	<b>Kennewick ASR Pilot Testing, Operations and Maintenance</b> - Kenny Janssen	<b>Squeezing Additional Life Out of a 100-Year-Old Reservoir</b> - Jennifer Garbely	<b>Protect Your Pipe: Invest in the Next 100 Years</b> - Jeff Blakely (WDOE CEUs)	<b>Travel from Treatment Plant</b> 3:00pm - 3:30pm
	<b>Kennewick ASR Facility Tour</b> - David Kuhns	<b>Criticality Analysis: The Important Pipes Below</b> - Joseph Foote  <b>Asbestos-Cement Pipe: Asset or Liability</b> - Douglas Schlepp (WDOE CEUs)	<b>Seattle Public Utilities' Critical Pipeline Protection for Sound Transit's Light Rail Northgate Link Extension</b> - Michael Norton  <b>Electric Water: PWB/Lucid Energy Hydroelectric Project</b> - Matt Hickey (No ID CEUs)	
CEUs	ID-0.6 / OR-0.6 / WA-0.6	ID-0.3 / OR-0.3 / WDOH-0.3 / WDOE-0.15	ID-0.25 / OR-0.3 / WDOH-0.3 / WDOE-0.1	ID-0.4 / OR-0.4 / WA-0.4

# Technical Program • Thursday, May 4

Early Bird Session				
Room	A	B	C	D
Host Committee		Community Engineering Corps	Distribution	Engineering
Moderator		Carrie Pak	Chris Wanner	Greg Loscher
7:15 - 8:15		Community Engineering Corps®: Two Case Studies from the Pacific Northwest Section - Patrick Weber, Joanie Stulz, John Roth	Optimizing System-Wide Flushing with a UDF Pilot Plan - Aurelie Nabonnand	Water Supply Power Optimization - Bill Carr (WDOE CEUs)
			Unidirectional Flushing: A Return on Experience - Aurelie Nabonnand	Pilot Testing of Thermal Aquifer Storage and Recovery for Industrial Water Supply - Christopher Augustine
CEUs		ID-0.1 / OR-0.1 / WA-0.1	ID-0.1 / OR-0.1 / WA-0.1	ID-0.1 / OR-0.1 / WDOH-0.1 / WDOE-0.05

Afternoon Regular Technical Session				
Room	A	B	C	D
Host Committee	Water Resources	Customer Service	Distribution	Engineering
Moderator	Walt Burt	Tonya Reiss	Doug Schlepp	Erika Murphy
1:30 - 2:30	Basin Studies: Projecting Impacts of Climate Change on Water Resources - Jennifer Cuhaciyian	Customer Service & Operator's Perspective - John Roth (WDOE CEUs)	From Layups to Dunks: Rezoning for Operational Efficiency Without Impacting Critical Customers - Mike Amburgey	Commissioning on Steroids in Lake Oswego and Tigard: How We Commissioned 6 Major Facilities, Started Supply to a New City, Maintained Existing Operations, and Lived To Tell About It! - Kari Duncan
	Separating the Effects of Climate Change and Groundwater Pumping on Seasonal Low Streamflows in the Spokane River - John Porcello		Three Birds with One Stone: Water System Planning, Operations & Maintenance Manual Updates, and Asset Management - Sam Adams	Chinook WTP: Challenges With Treating The Milk River - Jeff Ashley
CEUs	ID-0.1 / OR-0.1 / WA-0.1	ID-0.1 / OR-0.1 / WDOH-0.1 / WDOE-0.1	ID-0.1 / OR-0.1 / WA-0.1	ID-0.1 / OR-0.1 / WA-0.1
2:30 - 2:45	Break			
2:45 - 3:45	Climate Change - How Will It Impact Your Community's Long-Term Water Supply? - Julie Smitherman	A Better Path to Advanced Metering Infrastructure - Brett Foreman	Resurrecting A Unidirectional Flushing Program: The Real Cost Of Deferred Valve Maintenance - Dave Muto	Sludge Lagoons in the Northwest: Is the Tried-and-True Still Applicable? - Qianru Deng
			Resurrecting A Unidirectional Flushing Program: Getting the Program Up and Running - Paige Igoe	Evaluating Membrane Filtration Performance Guarantees - Nikki Mayer
CEUs	ID-0.1 / OR-0.1 / WA-0.1	ID-0.1 / OR-0.1 / WA-0.1	ID-0.1 / OR-0.1 / WA-0.1	ID-0.1 / OR-0.1 / WA-0.1
3:45 - 4:00	Break			
4:00 - 5:00	Yakima's Water Supply in Climate Change - David Brown	Setting Up a Customer Sampling Program - One Utility's Experience - KT LaBadie	Meeting The New Guidelines for Main Break Classifications and BMPs - David Stanley	Rapid Alternative Screening and Facility Planning for Project Definition at the JWC WTP - Kim Ervin
	Water Resource Challenges and Solutions in the Santiam Basin - Brent Stevenson	Achieving Good Internal Customer Service is Essential in Every Organization - Tonya Reiss (WDOE CEUs)	Large Diameter Wet Taps vs. The Cut & Section - Nathan Morgan	Advancing the Design of a New 60 MGD Water Treatment Plant - Austin Peters (No ID CEUs)
CEUs	ID-0.1 / OR-0.1 / WA-0.1	ID-0.1 / OR-0.1 / WDOH-0.1 / WDOE-0.05	ID-0.1 / OR-0.1 / WA-0.1	ID-0.05 / OR-0.1 / WA-0.1

# Technical Program • Thursday, May 4

Early Bird Session				
Room	E	F	G	H
Host Committee	Water Quality	ORWARN	Historian	Water Treatment
Moderator	Kim Ervin	Mary Ellen Collentine	Catherine Howells	Josh Kennedy
7:15 - 8:15	Field & Laboratory Tests To Evaluate Nitrification In the System - Kimberly Gupta (WDOE CEUs)	When The Oil Train Comes Knocking - Derailment and Fire at the Mosier WWTP - Richard Wolf (No ID, WDOH CEUs) (WDOE CEUs)	History of Tri-Cities Water - Catherine Howells	Washington's Tracer Study Project - Nancy Faegin
	UCMR4 - Where Are We Going and What Will We Find? - Ali Leeds			
CEUs	ID-0.1 / OR-0.1 / WDOH-0.1 / WDOE-0.05	ID-0.0 / OR-0.1 / WDOH-0.0 / WDOE-0.1	ID-0.1 / OR-0.1 / WA-0.1	ID-0.1 / OR-0.1 / WA-0.1

Afternoon Regular Technical Session				
Room	E (Poster Contest-Morning)	F	G	H
Host Committee	Cross-Connection	Water Info Tech	Research	Water Treatment
Moderator	Christine Hollenbeck	Robert Barrett	Alex Mofidi	Bill Evans
1:30 - 2:30	Cross Connection Control: Albany's Experience - Jeff Kinney	Pipeline Assessment Technology For the Next Generation - Margaret Cassidy	Treatment in a Trailer: Tool for Resiliency - Andrew Nishihara	How Changing Chlorine Residual Requirements Will Impact DBP Formation - Damon Roth
		Integration of Emerging Technologies: An Innovative Approach - Nicole Kaiser	Water System Resilience - David Peters	
CEUs	ID-0.1 / OR-0.1 / WA-0.1	ID-0.1 / OR-0.1 / WA-0.1	ID-0.1 / OR-0.1 / WA-0.1	ID-0.1 / OR-0.1 / WA-0.1
2:30 - 2:45	Break			
2:45 - 3:45	Public Education and Your Cross Connection Control Program - Mary Howell	Mobile, Cloud, & Cyber Security - Arnab Bhowmich (WDOE CEUs)	Portland's Recent Experiences With the Lead & Copper Rule: An Extension Education & Outreach Program, A Corrosion Control Study, & Working With Schools & Other Public Facilities to Test For Lead - Kimberly Gupta	The Taste of Victory - Taste Testing to Find Lower Cost Solutions to Groundwater Treatment - Benjamin Haws
		Utilizing Technology To Secure Critical Water Infrastructure To Comply With Regulations - Jeremy Djajadi (WDOE CEUs)	No Good Deed: Tacoma Water's Search for Lead Goosenecks - Craig Downs	Evaluation and Preliminary Design of Aesthetic Water Quality Treatment Improvements - Milton Larsen
CEUs	ID-0.1 / OR-0.1 / WA-0.1	ID-0.1 / OR-0.1 / WDOH-0.1 / WDOE-0.1	ID-0.1 / OR-0.1 / WA-0.1	ID-0.1 / OR-0.1 / WA-0.1
3:45 - 4:00	Break			
4:00 - 5:00	Reduced Pressure Principle Backflow Assembly "What Is It? How Does It Work?" - Garrett Yates (WDOE CEUs)	SCADA Remote Access Techniques & Best Practices - Robert Barrett (WDOE CEUs)	Opportunistic Premise Plumbing Pathogens: Applications of the Safe Drinking Water Act to Buildings - Sam Perry	Bend's New High Recovery Membrane Filtration Plant: Overview and First Year of Operation - Bryan Black
		Building Redundancy Into Critical SCADA Communications Infrastructure - Andrew C. Degner (WDOE CEUs)	Risk Assessment and Control of Legionella and Pathogens of Emerging Concern for Buildings and Small Systems - Alex Mofidi	Inline Coagulation to Control DBP Formation in Membrane Filtration Plants - Dan Hugaboom (WDOE CEUs)
CEUs	ID-0.1 / OR-0.1 / WDOH-0.1 / WDOE-0.1	ID-0.1 / OR-0.1 / WDOH-0.1 / WDOE-0.1	ID-0.1 / OR-0.1 / WA-0.1	ID-0.1 / OR-0.1 / WDOH-0.1 / WDOE-0.05

# Technical Program • Friday, May 5 (morning)

Morning Regular Technical Session				
Room	A	B	C	D
<b>Host Committee</b>	<b>Water Resources/Water Conservation</b>	<b>Wastewater</b>	<b>Distribution</b>	<b>Engineering</b>
<b>Moderator</b>	Patrick Craney	Eric Schey	Tom Keown	Tom Boland
<b>7:30 - 8:30</b>	From DSL to IWA/AWWA Best Practice Water Loss Audit in Spokane - Jeanne Finger	Oxidation Ditch Management - Peter Carter (Wastewater CEUs Only)	These Customers Won't Go Thirsty: Improving Water System Operations and Redundancy with a Replacement Water Pump Station and Seismic Upgrades - Daphne Marcyan	Design And Construction Of A Backup Power System To Supply The New Ridgewood View Park Pump Station - Nicholas Augustus (WDOE CEUs)
	Outdoor Water Conservation as a Source of Supply: Survey of Northwest Communities & Vancouver Case Study - Rachael Lanigan	Biosolids Management for Lagoons - Chris Chesson (Wastewater CEUs Only)	Seismic Upgrade to a Reservoir Foundation - Managing the Project Hurdles to Completion - Michael Grimm	Evaluating The Emergency Power Needs And Recent Emergency Power Installations At A Large Water Utility - Tyler Clary
CEUs	ID-0.1 / OR-0.1 / WA-0.1 ID pending	DW ID-0.0 / OR-0.0 / WDOH-0.0 WW ID-0.1 / OR-0.1 / WDOE-0.1	ID-0.1 / OR-0.1 / WA-0.1	ID-0.1 / OR-0.1 / WDOH-0.1 / WDOE-0.05
<b>8:30 - 8:45</b>	Break			
<b>8:45 - 9:45</b>	Bend's Strategies for Making Conservation a Reliable Part of It's Long Term Water Supply Portfolio - Patrick Griffiths	Process & Instrumentation Diagrams - Butch Perry (Approved for water CEUs in ID & WA)	Seismic Resiliency: Upgrading a Treated Water Reservoir and Transmission Pipelines for the Big One - Deborah Russell	Cascadia Lifelines Program - Carrie Pak (WDOE CEUs)
	M50, Water Resources Planning: Spotlight on Sustainability - Alena Thurman (No ID CEUs)		Planning For Seismic Resiliency In Gresham's Water System - Rachel Lanigan	What Does It Take for a Large Regional Water Supply System to Achieve Seismic Resiliency? - Mike Britch
CEUs	ID-0.05 / OR-0.1 / WA-0.1	DW ID-0.1 / OR-0.0 / WDOH-0.1 WW ID-0.1 / OR-0.1 / WDOE-0.1	ID-0.1 / OR-0.1 / WA-0.1	ID-0.1 / OR-0.1 / WDOH-0.1 / WDOE-0.05
<b>9:45 - 10:00</b>	Break			
<b>10:00 - 11:00</b>	Making the Case for Cost-Effective Conservation Programs - Edward Cebon (WDOE CEUs)	Network Fundamentals - Bud Titus (Approved for water CEUs in ID & WA)	SERP's Up! (Seismic Evaluation and Resiliency Planning) Are You Catching The Wave? - Brian Murphy	A Collaborative Approach to Infrastructure Reliability - Jason Chen
				When the Drought Takes Your Supply Out: Quickly Designing and Constructing Pump Stations with Existing Equipment to Address a Water Supply Shortage - Marshall Meyer
CEUs	ID-0.1 / OR-0.1 / WDOH-0.1 / WDOE 0.1	DW ID-0.1 / OR-0.0 / WDOH-0.1 WW ID-0.1 / OR-0.1 / WDOE-0.1	ID-0.1 / OR-0.1 / WA-0.1	ID-0.1 / OR-0.1 / WA-0.1

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# Technical Program • Friday, May 5 (morning)

Morning Regular Technical Session				
Room	E	F	G	H
<b>Host Committee</b>	<b>Water Quality (must attend all 3 hours)</b>	<b>ORWARN</b>	<b>Utility Management</b>	<b>Water Treatment</b>
<b>Moderator</b>	<b>Kyle Thompson</b>	<b>Mary Ellen Collentine</b>	<b>Barry Buchanan</b>	<b>Alex Chen</b>
<b>7:30 - 8:30</b>	Flint Michigan Distribution System Water Quality and Corrosion Control Assessment (3 hour panel) - Melinda Friedman, Dr. Steve Reiber, Dr. Stephen Booth, Andrew Hill, Damon Roth	Emergency Water Supply Guidebook For Commercial, Industrial & Institutional Customers - Jill Hoyenga (No ID CEUs)	Workforce Development and University Students - Catherine Howells (WDOE CEUs)	Disinfection Data Integrity - Accuracy and Precision in Treatment - Steve Deem
CEUs		DW ID-0.0 / OR-0.1 / WDOH-0.1 WW ID Pend/ OR-0.1 / WDOE-0.0	Willamette Water Supply Program's Proactive Communication Approach to Right-of-Entry - Marlys Mock (No ID CEUs)	Lessons Learned from Walla Walla: Eastern Washington's Largest GC/CM Water Project - Kenny Packard
<b>8:30 - 8:45</b>	Break			
<b>8:45 - 9:45</b>	Flint Michigan Distribution System Water Quality and Corrosion Control Assessment (3 hour panel) - Melinda Friedman, Dr. Steve Reiber, Dr. Stephen Booth, Andrew Hill, Damon Roth	Resilient Asset Management For Emergency Management - Arnab Bhowmick (WDOE CEUs)	The Path to Potable Reuse - Kim Ervin (No ID CEUs) (WDOE CEUs)	Full Scale Performance Demonstration of New Media Configuration at the JWC WTP - Enoch Nicholson
CEUs		Maintaining Service Through Resiliency And Emergency Response - Chris McMeen	Blueprint for One Water - Wendy Broley (WDOE CEUs)	Getting to Non-Detect PFCs in Drinking Water as Fast as Possible: the City of Issaquah, WA Experience - Beth Mende
CEUs		DW ID-0.0 / OR-0.1 / WDOH-0.1 WW ID Pend/ OR-0.1 / WDOE-0.05	ID-0.05 / OR-0.1 / WDOH-0.1 / WDOE-0.1	ID-0.1 / OR-0.1 / WA-0.1
<b>9:45 - 10:00</b>	Break			
<b>10:00 - 11:00</b>	Flint Michigan Distribution System Water Quality and Corrosion Control Assessment (3 hour panel) - Melinda Friedman, Dr. Steve Reiber, Dr. Stephen Booth, Andrew Hill, Damon Roth	Providing Emergency Services - Grants Pass' Approach to Drinking Water Supply - Jason Canady	One Water Los Angeles 2040 Plan: Managing All Water as One Water Using a Water Balance Model - Mathew Huang (WDOE CEUs)	Innovative WTP Upgrades Reduce DBPs and Improve Water Quality - Todd Reynolds
CEUs	ID-0.1 / OR-0.1 / WDOH-0.1 / WDOE 0.1	DW ID-0.1 / OR-0.1 / WDOH-0.1 WW ID Pend/ OR-0.1 / WDOE-0.0	Alternatively Delivering the Best Value - Jenn Minton (No ID CEUs)	OWUC Ozone Coalition - Collaborating with Regulators to Protect Public Health - Eric Mende
CEUs			ID-0.05 / OR-0.1 / WDOH-0.1 / WDOE-0.05	ID-0.1 / OR-0.1 / WA-0.1

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# Technical Program • Friday, May 5 (afternoon)

Morning Regular Technical Session				
Room	A	B	C	D
Host Committee	Water Conservation/Water Info Tech	Wastewater	Distribution	Engineering
Moderator	Mike Buettner	Eric Schey	Logan Fesenmair	Carmen Brown
1:30 - 2:30	Conservation Targeted at Low Income Customers: Evaluating a Pilot Program - Edward Cebon (No ID CEUs)	Ballasted Sedimentation - Jeff Marrs, Tina Hastings (Approved for water CEUs in all 3 states)	Using Pressure Data Loggers To Improve Hydraulic Model Accuracy And To Troubleshoot Distribution System Problems - Ryan Withers	Bridging the Gap between Master Planning and Design of a 5 MG Reservoir to Better Serve Customers - Alena Thurman (No ID CEUs)
	GIS: A Tool for Water Conservation Planning & Tracking - Rachel Lanigan		Pocatello Master Planning - Balancing System Pressures and Fire Protection - David Stangel	Union Regional Water System - Consolidation of Six Small Water Systems - Jocelyne Gray
CEUs	ID-0.05 / OR-0.1 / WA-0.1	DW ID-0.1 / OR-0.1 / WDOH-0.1 WW ID-0.1 / OR-0.1 / WDOE-0.1	ID-0.1 / OR-0.1 / WA-0.1	ID-0.05 / OR-0.1 / WA-0.1
2:30 - 2:45	Break			
2:45 - 3:45	New Automated Leak Detection and Resolution Solutions for Non-AMI and AMI Environments - Brett Foreman	Operator Involvement in Capital Facility Planning - Ed Griffenberg (Approved for water CEUs in all 3 states)	Portland Water Bureau's Water Quality Corrosion Study - Kimberly Gupta	Overcoming Inertia: Advancing from Concepts And Planning To Delivery Of Infrastructure - David Kraska (No ID CEUs)
			The Circuitous Path to Success - WWSP Design, Construction, and Coordination Challenges - Mike Britch (No ID CEUs)	Splitting The Watermelon - WWSP Packages \$1.0 B In Infrastructure - Tim Tekippe (No ID CEUs)
CEUs	ID-0.1 / OR-0.1 / WA-0.1	DW ID-0.1 / OR-0.1 / WDOH-0.1 WW ID-0.1 / OR-0.1 / WDOE-0.1	ID-0.05 / OR-0.1 / WA-0.1	ID-0.0 / OR-0.1 / WA-0.1
3:45 - 4:00	Break			
4:00 - 5:00	Automated Metering Infrastructure: Five Years In - Jesse Engum (WDOE CEUs)	Remote Control of Treatment Facilities - Chad Clay (Approved for water CEUs in all 3 states)	City of San Bruno Glenview Water Tank 3: Building a Critical Piece of Infrastructure Adjacent to the San Andreas Fault - Jeffrey Wanlass	Construction Partnering Between Agencies - Who Takes the Lead? - Joelle Bennett (No ID CEUs)
		Electric Disconnects for Equipment - Kolby Hoaglund, Mike Hetzler (Approved for water CEUs in all 3 states)	TVWD/City of Tualatin's 10 MGD Portable Emergency Pump Station: Providing Supply Redundancy to a Single-Source Service Area and Adjacent City - Peter Boone	Davis-Woodland Water Supply Project: Quest for Reliability, Innovation & Affordability Becomes A Reality - Lindsay Smith (No ID CEUs)
CEUs	ID-0.1 / OR-0.1 / WDOH-0.1 / WDOE-0.1	DW ID-0.1 / OR-0.1 / WDOH-0.1 WW ID-0.1 / OR-0.1 / WDOE-0.1	ID-0.1 / OR-0.1 / WA-0.1	ID-0.0 / OR-0.1 / WA-0.1

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# Technical Program • Friday, May 5 (afternoon)

Morning Regular Technical Session				
Room	E	F	G	H
Host Committee	Water Quality	Water Info Tech	Competitions	
Moderator	Mike Grimm	Rob Barrett	Doug Priest	
1:30 - 2:30	DBP Formation Study in Groundwater Wells - Jolyn Leslie	Integrating Asset Management: Internet of Things (IoT) - Arnab Bhowmick (WDOE CEUs)	Gimmicks & Gadgets (No ID CEUs)	
	Balancing DBP Formation with Corrosion Control Concerns for a Blended Water Supply on Maui - Bill Persich	Automated Meter Reading Systems: Broken to Fixed - Mark Cummings		
CEUs	ID-0.1 / OR-0.1 / WA-0.1	ID-0.1 / OR-0.1 / WDOH-0.1 / WDOE-0.05	ID-0.0 / OR-0.1 / WA-0.1	
2:30 - 2:45	Break			
2:45 - 3:45	Lead Sampling Strategies - Damon Roth	Turning Data to Knowledge - Barry Buchanan (WDOE CEUs)	Top Ops (No ID CEUs)	
	A Holistic Look at the Presence of Lead in Water Distribution Systems - Benjamin Klayman			
CEUs	ID-0.1 / OR-0.1 / WA-0.1	ID-0.1 / OR-0.1 / WDOH-0.1 / WDOE-0.1	ID-0.0 / OR-0.1 / WA-0.1	
3:45 - 4:00	Break			
4:00 - 5:00	Practical Training Methods for Water Main Disinfection - Eloise Eccles	Aquadvanced Energy - Suez Water Idaho, Paving the way to System Optimization - Michael Espejo		
	Managing Hypochlorite to Reduce Chlorate Formation: A Utility Case Study - Kimberly Gupta (WDOE CEUs)			
CEUs	ID-0.1 / OR-0.1 / WDOH-0.1 / WDOE-0.05	ID-0.1 / OR-0.1 / WA-0.1		

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## From a Visionary Past...to an Inspired Future The City of Bremerton Commemorates 100 Years of Water System Ownership



2017 marks the 100<sup>th</sup> Anniversary of the City of Bremerton's ownership of its most remarkable resource: a clean and reliable water supply.

Bremerton's rich history is interwoven with the history of its water system, its largest customer, the Puget Sound Naval Shipyard, and the visionary accomplishments of the water system founders. Named for its German immigrant founder, William Bremer, Bremerton was incorporated in 1901. Drinking water for the rough and raucous town of 1,700 people (and 16 saloons!) came from shallow wells and springs. The growth of the area was linked to the Navy as its major employer, and a need for more water quickly emerged. In 1902, a private company was granted a franchise to install a water system with sources diverted from local creeks.

The City desired to purchase the water system in 1912; however, the parties could not agree with provisions in the franchise agreement. After several years of litigation ending with the Washington Supreme Court, the final details were worked out for Bremerton to acquire the water system in 1917 from the Garrison-Fisher Company. At that time, the fledgling water system consisted of 600 acres of watershed land and 2 million gallons per day of surface water supply. The cost was \$225,000 (equivalent to \$4.2 million in 2017).

The water system was in need of attention. Improvements in the 1920s and 30s included replacing wood distribution pipes with cast iron pipes, installing customer meters, replacing pump stations, and purchasing lands in the Union River watershed. Some of the Great Depression-era construction was achieved with the help of the Work Progress Administration.

With the advent of World War II, the population of Bremerton skyrocketed from 15,000 to 80,000 as the community and its shipyard



Installation of wood transmission main from the early 1930s.

contributed mightily to the war effort. To meet the drastically increased water demand, the City drilled wells in an aquifer near Anderson Creek in the mid-1940s to supplement surface water supplies. This aquifer continues to be an important water source for Bremerton.

In the 1950s, water superintendent C.C. Casad developed the Union River source by constructing a large concrete arch dam at its headwaters in 1957. Its high elevation can deliver water by gravity to save power costs. Due to McKenna Falls just downstream, the dam does not affect fish migration. The sturdy structure was named Casad Dam, and stands as a monument to the former superintendent's exceptional foresight, planning, and his over 40 years of city employment.

The City of Bremerton now owns and protects 98% of the 3,000 acre watershed surrounding the 1.4 billion gallon capacity reservoir. Exemplary source protection is key to the success of Bremerton's water utility – water quality in the Union River Reservoir is so exceptional that Bremerton is one of only a few surface suppliers in the United States not required to build a filtration plant.

Today, 300 miles of pipe delivers an average of 6.5 million gallons per day to a population of over



Construction of Bremerton's Casad Dam began on October 12, 1955 and took two years to complete.

55,000 customers. The Union River supplies 60% of this water while wells supply 40%. The Navy is still the largest water customer, using about 1 million gallons per day. Bremerton's water treatment consists of disinfection (ultraviolet light and sodium hypochlorite) and corrosion control. Bremerton's water system consistently complies with federal and state protective standards.

One hundred years into its operation, we celebrate the foresight of 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. 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.

### Guest Author:

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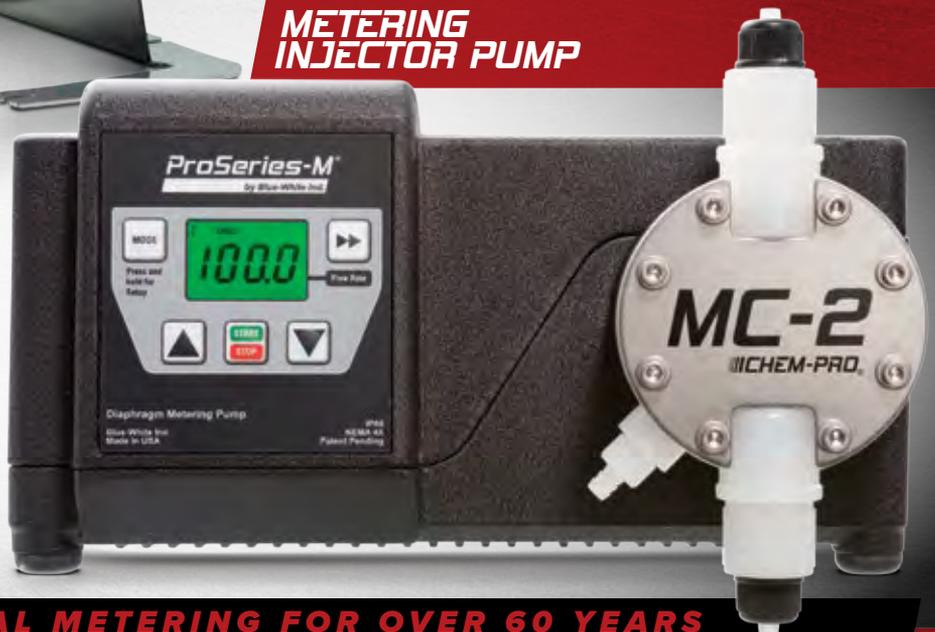
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