



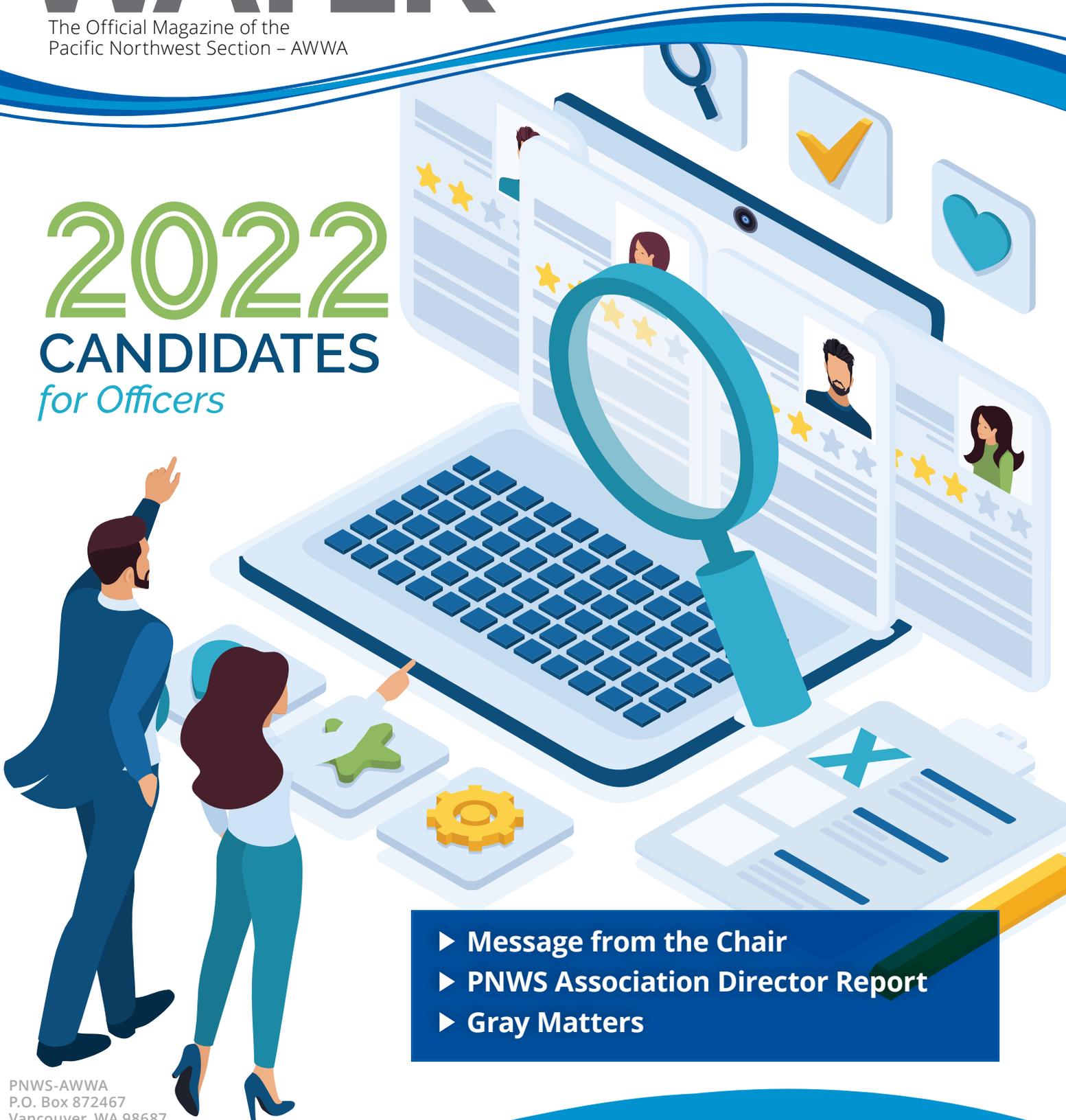
American Water Works Association
Pacific Northwest Section

FALL 2021

WATER *matters*

The Official Magazine of the
Pacific Northwest Section – AWWA

2022 CANDIDATES *for Officers*



- ▶ **Message from the Chair**
- ▶ **PNWS Association Director Report**
- ▶ **Gray Matters**

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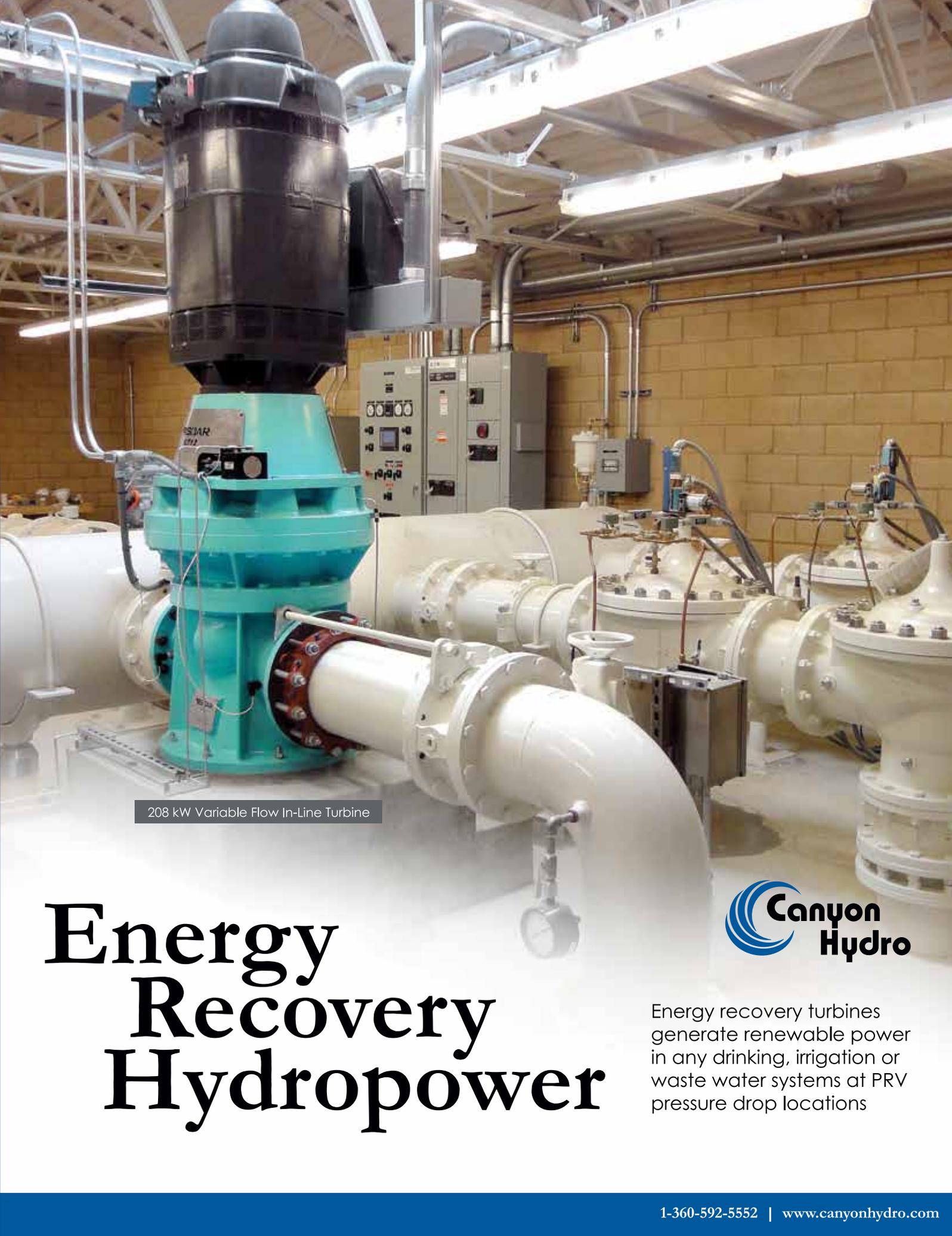
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Our Members Make a Difference

Greetings colleagues and fellow members, I hope you are having a productive and profitable year. Fall is my favorite time of year and the cooler, wetter weather is certainly a respite from the early, hot and long summer we experienced in the Pacific Northwest. Throughout the Section, it feels like we have been productive – although COVID still frustrates many of our efforts. There have been opportunities for in-person gathering this year: Northwest Oregon, Southern Oregon, Lower Columbia and King County all held golf tournaments to raise funds for their philanthropic goals.

The Section continues to have a strong virtual presence; there were several online training opportunities throughout the year. Committees and Subsections provided excellent content; meanwhile, other Subsections held short schools virtually. While the Board continues to meet virtually, we had the opportunity to meet in person at the Regional Meeting of Section Officers (RMSO) this summer. The RMSO is a chance to meet with other Sections in the Association and share struggles and successes. Five members of the Board attended and it was refreshing to hear their stories and discuss how other Sections have responded to virtual conferences, trainings and networking events; focused on their mission; and maintained communication with their members. This year's RMSO also offered training on crisis communication and Water Utility Coordinating Committees.

We have made good progress with updating our Rules of Procedure (ROPs) for alignment with our new By-Laws, mission and vision. A big shout out to Brad Phelps, our ROP



and By-Law Chairman. Brad had everything updated inside of the ROPs to align with the new By-Laws prior to the first ad hoc group meeting. That allowed the group to start on strong footing and look at important updates that align with our Section values. The draft includes our diversity statement, more information about reporting, key performance indicators, and timing. We are actively working to develop continuity procedures that are small but carry impactful changes.

The ad hoc group has broken into three work teams and is developing member resources, such as committee and subsection organizational templates, volunteer mentoring, timelines, and flow charts. The work is meant to make volunteering easier by providing more clarity in roles, timing and communication.

My commitment is that we'll have a draft by the Winter Meeting so that it may be reviewed by the Board and

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When you're surrounded by colleagues that become friends, who believe in and encourage you, they are the ones that often make the difference. Whether they gift you with an encouraging word, a motivational discussion, these inspiring achievements pick us up and carry us to another day.

members alike. The target is to have a final version approved at the 2022 Spring Meeting. We are currently planning an in-person meeting at the Tacoma Conference Center in May 2022. Due to COVID, the last two conferences were canceled so we are looking forward to seeing everyone when it is safe to do so. I miss being able to visit and connect with friends and colleagues, visit vendors and check out the new technology, watch our operators compete, celebrate awards with our members, and attend some of the best technical sessions in the Pacific Northwest.

The Fall edition of *Water Matters* contains voting and election information for future Section Officers. I encourage you to participate by voting and getting involved with the Section. We are a

volunteer member's organization and every one of us makes a difference and impacts the Section in our own way. I have been active in the PNWS-AWWA for nearly 20 years and never believed I would be in the role that I am today. To tell you the truth, I wouldn't be where I am today if it wasn't for my friends and colleagues who are members of the Association. Personally, there were times where I was ready to quit and take an extended break; however, when you're surrounded by colleagues that become friends, who believe in and encourage you, they are the ones that often make the difference. Whether they gift you with an encouraging word or a motivational discussion, these inspiring achievements pick us up and carry us to another day. We have the

best volunteers that give their time and effort but more importantly pour themselves into the effort for benefit of all our members and the Section. When you recognize it, please thank them: I'll tell you from experience it makes a world of difference.

2020 and 2021 have been challenging years in many respects. The idea of normal is completely changed and we have had to be flexible and adaptable to confront that change. The PNWS-AWWA has answered that call and the work that we do continues to bring value to our members. Thank you for your time, patience, and spirit of service. 🙏

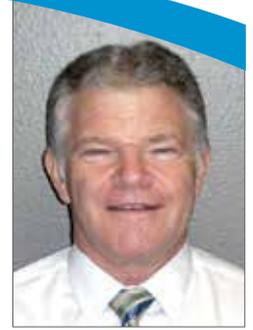
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Share Your Story

Fall is here and it's time to get ready for the cold, wet winter season by completing our annual operational and maintenance activities. On the bright side, we have sports to look forward to and the ability to attend in-person events again! Can you believe it's been two years since the COVID-19 pandemic began? Just when we thought we'd see light at the end of the COVID tunnel, we find ourselves fighting the new COVID variants. Let's keep our fingers crossed that this too shall pass, and we see a decrease in COVID cases and a continued return to a sense of normalcy.

Some of you have been asking how my experience serving as Vice President, representing our Section and the AWWA, is going. The AWWA decided that there will not be any official visits until January 1, 2022, so I won't be travelling to a Section conference before then; however, I recorded the Mexico Section's presentation of the *George Warren Fuller Award*, which I really enjoyed. In October, I will be virtually attending the Southwest Section Conference, where they are planning to have an in-person presence, so I am looking forward to that. I am hopeful that I will be able to attend more conferences in person next year.

On August 20-21, 2021, the AWWA hosted Regional Meetings of Section Officers (RMSO). These were the first in-person meetings hosted by AWWA since the winter meeting in Puerto Rico, January 2020. The Association divided 43 Sections into four different regions. Instead of having four separate meetings, there will be two meetings – regions three and four met in Midway, UT, and regions one and two are scheduled to meet on November 16-17 in Annapolis, MD.

RMSO's are a chance to gain information for the Section Officers. The Meeting is designed as a forum to exchange information about AWWA activities and priorities at the International and Section levels. The Association focuses on providing important updates on AWWA programs, initiatives, policies, and opportunities. Chi Ho Sham, President of AWWA, was there to share his focus on three important areas:

1. How to increase volunteers at all levels,
2. How to convert seasoned professionals into mentors, and
3. Promoting member engagement.

The Association took a lot of precautions to help ensure the safety and welfare of the nearly 50 attendees. But I have to say, it was so nice to have the opportunity meet in person once again!

Keep in mind that ACE22 will be June 12-15 in San Antonio, TX.

So, what else has been happening around AWWA since the last article I shared with you? Membership continues to be a prime focus this year since numbers have dropped from 49,295 in January to 48,378 in July.

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I encourage you to renew your membership with the Association and find an opportunity to connect with a non-member, share your story, and the many benefits the AWWA has to offer.

The Association is asking each of us to speak with a business acquaintance or professional colleague, who is not a member of AWWA, and share the many reasons why they and their business benefit from a membership with the AWWA. The community side of an AWWA membership provides access through multiple platforms, connecting members to a community of dedicated water colleagues. For best practices, an AWWA membership provides 24/7/365 access to trusted resources, ensuring continuity of service in times of turbulence or calm. An AWWA membership supports advancement and professional growth with member-exclusive opportunities and the public health portion of AWWA safeguards public health and welfare by uniting the full spectrum of the entire water industry.

However, nothing is more powerful than sharing why you are a member of the AWWA. People relate to shared experiences so we invite you to share your story. Think about why you are a member and what membership does for you and your organization.

The AWWA has a list of online resources, including its new video streaming channel where your organization and employees have quick and easy to access to programs, including the popular WSO operator training and certification series and the Safety-First series. Meanwhile, its partnership with the USDA offers online training for small systems (until we can meet again in person).

The AWWA may have the resources you need, but the Association also needs you. As a member, we invite you to share your experiences with others

via articles in the *Journal*, presentations at our events, and as a volunteer at the Section and Association levels.

Like nearly all businesses, the Association has seen a significant financial impact due to the COVID-19 pandemic. Thanks to the outstanding foresight of our leadership, staff, and volunteers, the AWWA is presently in a financially healthy position; however, looking to the future, cannot fulfill its mission without a robust membership. So, I encourage you to renew your membership with the Association and find an opportunity to connect with a non-member, share your story, and the many benefits the AWWA has to offer. 

Warmest regards,
Randy Black
PNWS Association Director and VP
AWWA

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Oregon Water/Wastewater Agency Response Network (ORWARN) Committee

ORWARN 2021 Conference October 20-22, 2021 – POSTPONED

Unfortunately, due to the COVID surge, the ORWARN Board finds it necessary to postpone the Conference scheduled for October 20-22, 2021. We have a great Conference planned for attendees so stay tuned for the announcement of new dates!

ORWARN Website

Please remember to keep your organization's information up to date on the website. If you need help logging in or have questions, please email info@orwarn.org and one of the Board Members will respond.



Membership

ORWARN's membership continues to grow. We are up to 160 members and associate members. If you know of a utility that is not yet a member of ORWARN, please ask them to contact us at info@orwarn.org for more information.

Activations

We have had several activations that ORWARN members responded to in the last few months. Utilities helping utilities is our Committee's primary goal – one that couldn't be met without each and every member utility. Thank you! 🙌

Utility Management Committee

Women in Leadership Save the Date: February 9, 2022

Planning for *Women In Leadership* is underway! We are preparing for an in-person, morning event to take place at Brightwater Center (at the Brightwater Clean Water Treatment Facility) on February 9, 2022. Stay tuned for more details!

For more information, contact Erika Schuyler, WIL Symposium Lead, at erika.schuyler@murraysmith.us. 🙌



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Engineering Committee

Excellence in Engineering Awards

Got an excellent project you want to show off? The call for entries for the *Excellence in Engineering Awards* is open through mid-January. Don't miss out! These Awards recognize excellence in engineering for water supply, treatment, or conveyance projects. Persons, agencies, consultants, contractors, and water utilities that have recently or will soon be completing a project in Idaho, Oregon or Washington may apply. Please feel free to nominate one of your Projects or someone else's that you feel is deserving of an Award.

Categories: Projects may be submitted in the "Large Project" (>\$5M construction), "Small Project" (<\$5M construction), or "Engineering Planning" categories.

Electronic nominations are limited to a three-page project narrative

that provides a brief description of the project and why it demonstrates "Excellence in Engineering" with the opportunity to submit additional supporting material as applicants see fit.

The Committee will be looking for outstanding water-related engineering projects that have shown:

- incorporation of innovative technologies or approaches,
- difficulty of the challenges overcome,
- inclusion of sustainability elements (includes resource sustainability or cost effectiveness), and
- considerations for system or project resilience (seismic, flood, system redundancy, etc.).

Entry deadline: **January 14, 2022.**

The nomination form and submission requirements can be obtained by contacting Nick Robertson at nrobertson@dowl.com or 503-701-8650.

Section Conference Forecast

Thank you for all the great Section Conference abstracts! At 76 submissions, the Engineering Committee received significantly more abstracts than any other committee. The themes uniting many of these abstracts are striking and we look forward to the 2022 Tacoma Conference!

Jump Into a New Meeting Time with an Idea

If you have an idea for industry learning or a collaboration opportunity, please contact one of the Officers or join our next meeting to discuss your idea and hear about others in the process. We are now meeting the **second** Wednesday of each month, from noon – 1 p.m. via Microsoft Teams, and our Officers will provide you with a meeting invite. 

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Hope Springs Eternal

By Dan Kegley

My hope in writing this piece, titled *Hope Springs Eternal* – a proverb of sorts – is to share a perspective of human nature that always finds a fresh cause for optimism. Drought, relentless heat, fires, pandemic resurgence, and lack of interaction all seem to overwhelm us, yet we continue to persevere. As I write, I watch the daylight cover Louisiana and the devastation, left behind by hurricane Ida, come into focus. News reports show the worst aspects of the storm; however, if you listen to the narrative from the leaders in the community, you hear a story of dedication and resolve.

I hear the words of Vince Lombardi echo in my mind as these people speak of a path to normalcy. “It’s not whether you get knocked down, it’s whether you get up.” One of the many systems to be restored (besides power) is water. Water is a resource often forgotten during normal day-to-day life but, especially in instances of emergency or disaster, it is one of the first items needed. Before I continue, I thank all of you, no matter your role, for keeping the water flowing during all types of weather and for your personal sacrifices.

2020 was the year that everyone wanted to see in the rearview mirror. Although 2021 has not been without its challenges, we can see the needle moving in the right direction. I won’t speak for everyone, but my energy reserves were getting low and the stress levels – yes, even in retirement – grew higher. I am so thankful for the small respite we received from the pandemic; however, those thoughts eventually shifted to chlorine shortages, drought, relentless heat, fires, and the Delta variant. But, through it all, *hope springs eternal*. Getting back together in Chelan, the 2022 Spring conference in Tacoma, knowing that we will get through this and we will be stronger because of it – just like the survivors of Hurricane Ida, who stand stronger after being knocked down.



Simple acts of kindness, taking an extra moment to be patient, or seeing people where they are in the moment helps us all be the best versions of ourselves and cast sunlight into someone’s gloomy day.

The kindness and generosity of our Section truly amazes me and is always there. Many times, a phone call, email and yes, even a Zoom meeting, reminds me that our members are there for us and will help us up should we be knocked down – one of

the values of membership we can’t accurately capture. Simple acts of kindness, taking an extra moment to be patient, or seeing people where they are in the moment helps us all be the best versions of ourselves and cast sunlight into someone’s gloomy day.

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Tomorrow will always be tomorrow, so take a few minutes to reach out and ask someone how you can help. You will be rewarded in doing so – and by doing so, will meet some of the greatest like-minded people who are all working towards a common goal.

The outlook for the Section is getting better all the time; there seems to be more energy as things begin to calm down and we catch our collective breaths. This summer, you may have attended an in-person event – that itself is a victory! Committees and Subsections are rolling out new trainings for people to attend virtually or in a classroom setting – allowing operators the chance to attend these great educational opportunities. People are reconnecting after a hiatus or inability to connect in person; networking is so valuable and a connection that I hold so dear.

This Section has always been and will always be an extended family. The friends and connections made will last a lifetime. The chance to grow

as a leader and mentor are things that cannot be taught in a classroom: it is an asset learned through volunteering and networking. Seeing different approaches and mindsets, through the diversity of our Section, enhances your skills to tackle obstacles or present new perspectives.

This spring, I was presented with the *George Warren Fuller Award*, to which I am extremely grateful and humbled. Without the membership, my mentors, my network, my time volunteering, and my family (bulldogs excluded), it would not have been possible for me to stand in the shadows of past recipients. For me, everyone has played a part. It shows that anyone can play a significant role in our Section, and you do not have to do it alone. I ask anyone, who's interested

in becoming more involved, to reach out and ask a simple question, "How can I help?" Ask any Board member, Committee Chair, Subsection Officer and I am certain they will get you plugged in. Tomorrow will always be tomorrow, so take a few minutes to reach out and ask someone how you can help. You will be rewarded in doing so – and by doing so, will meet some of the greatest like-minded people who are all working towards a common goal. Tomorrow for me is a day of fishing, chasing the somewhat elusive sturgeon in the north end of Lake Roosevelt – although the reports have been underwhelming, so who knows... *hope springs eternal*.

Tight lines & Go Dawgs! 🐾

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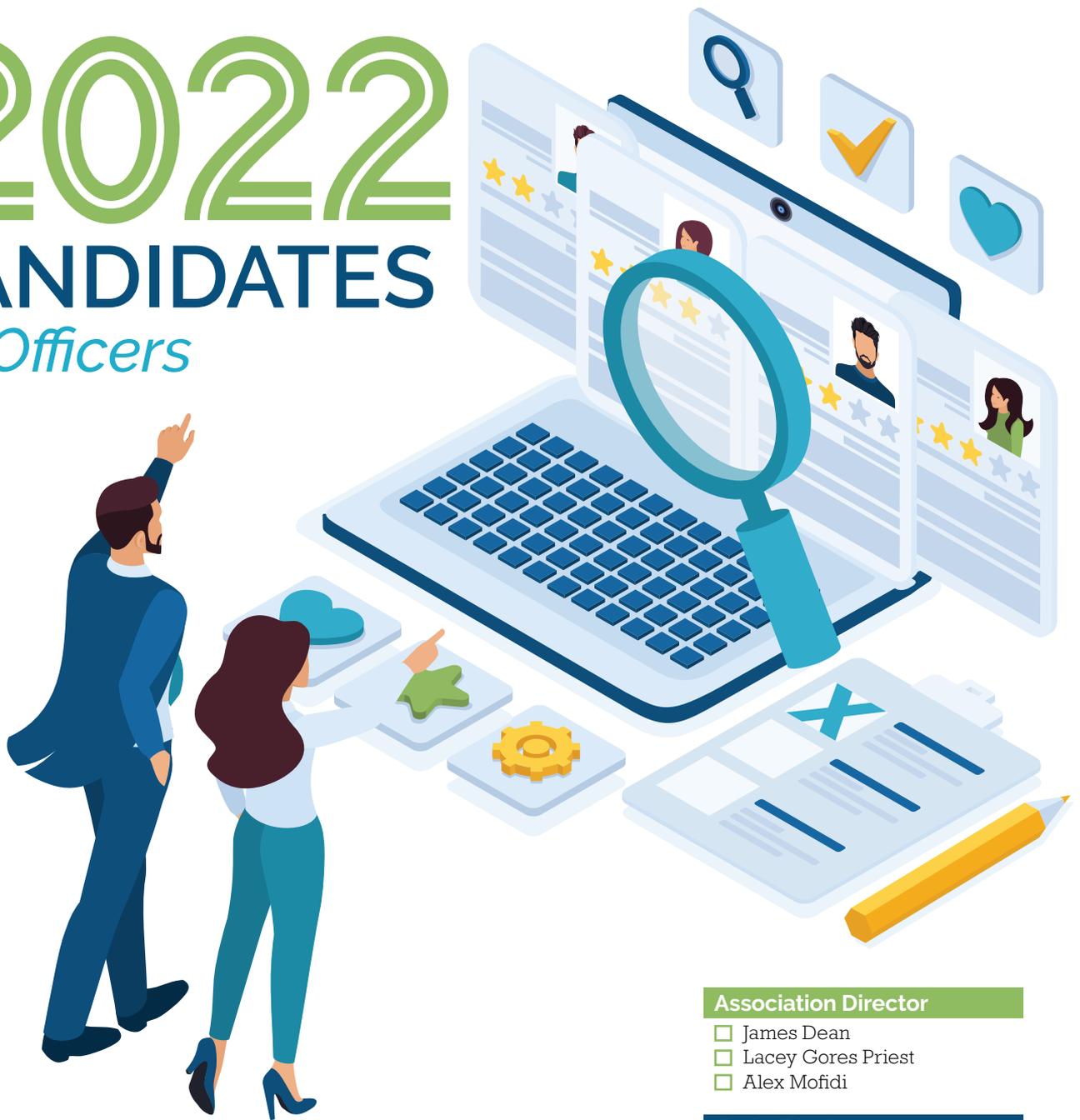
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2022

CANDIDATES

for Officers



The Pacific Northwest Section Nominating Committee presents the following candidates for 2022. You will vote for one of the three candidates for Association Director, one of the two candidates for Chair, and one of the candidates in each of the three Trustee categories: Oregon/Idaho, Washington and Trustee-At-Large.

Each of the three Trustee positions is for a two-year term; the Chair will serve one year as Chair-Elect, one year as Chair, and one year as Past Chair; and the Association Director will serve a three-year term, representing the Pacific Northwest Section of the American Water Works Association

Association Director

- James Dean
- Lacey Gores Priest
- Alex Mofidi

Chair-Elect

- Doug Schlepp
- Dan Sleeth

Trustee-At-Large

- Libby Bakke-Barg
- DeEtta Fosbury
- Michelle Johnson

Washington Trustee

- Pat Everham
- Tonya Reiss

Oregon/Idaho Trustee

- Joel Cary
- Mark McGuire
- Erika Murphy



JAMES DEAN

Utility Customer Service Manager, City of Yakima

Throughout my years as a member of PNWS-AWWA, I have had the opportunity to meet and work with some great people and truly appreciate the opportunity to be considered as a candidate for the position of Association Director.

I began my career in the water works industry with the City of Yakima as a Water Distribution Specialist 1, general laborer, in 1997. Due in no small part to the training and networking opportunities provided by the AWWA, I worked my way thru the ranks and was appointed as the Water Distribution Supervisor in 2008. I was appointed to my current position of Utility Customer Service Manager in 2013. During this time, the training tools offered by the AWWA – and more importantly, the great friends I have been able to meet and network with in the Pacific Northwest Section – have been invaluable in my growth and development as a water works professional.

In 2006, I began serving in PNWS as the Central Washington Subsection Vice President and moved up to

Subsection President/Chair in late 2009. During this time, with the help and involvement of the outstanding officers in the Subsection, we added a training coordinator position and a Young Professionals liaison to the CWSS Board of Officers and facilitated annual trainings and networking events to benefit Water For People. In 2014, I was blessed and honored to receive the Section's *Heart and Soul Award* and have served as the Volunteer Coordinator for both the 2012 Section Conference, in Yakima, and the 2017 Section Conference, in Kennewick, WA.

Over the past few years, I have had the honor to serve on the Board of Trustees as a Washington State Trustee, Chair-Elect, Chair and Past Chair of the Board and greatly enjoyed working with the members, Board and Committees in shaping the future of the Pacific Northwest Section.

In my time away from work, I spend a lot of time with family – especially my grand nieces and nephews. I also enjoy riding and customizing my Harley Davidson motorcycles and am a die-hard Dallas Cowboys fan.

I am extremely proud to be a part of this organization and would be honored to continue my service as your next Association Director.



LACEY GOERES-PRIEST

Water Quality Supervisor, City of Salem Public Works Department

It is an honor to be considered as the next Association Director of the PNWS-AWWA. The PNWS Board develops policy aimed at fulfilling its mission to foster a network of professionals, provide opportunities, and create leadership for the water industry in the Pacific

Northwest. The PNWS Association Director, as part of the PNWS Board, actively participates in the policy making process that guides the future of our Section. Additionally, the Association Director represents the PNWS at the Association level – ensuring the PNWS continues to be recognized as one of the most respected and valued Sections, comprised of highly talented and motivated volunteers and members. If elected, I am committed to learning from and working with other Association Directors across the Association. I look forward to sharing PNWS successes and bringing back ideas/strategies to further cultivate our Section and enhance value of membership. Engaging at the Association level represents

an important leadership opportunity and I would be grateful to represent the PNWS as an Association Director.

AWWA Involvement

- PNWS-AWWA Board Experience
- Section Past Chair (2017-2018)
- Section Chair (2016-2017)
- Section Chair Elect (2015-2016)
- Section Trustee At-Large (2013-2015)
- PNWS-AWWA Committee Experience
- Water Conservation (Chair)
- Water Quality (Chair)
- 2009 LAC (Co-Chair)
- Program Committee (Chair)
- Membership Committee (Co-Chair)
- Ad-hoc Registration
- Training Coordination

Education and Awards

I earned my MS in Environmental Science and Engineering from the Oregon Graduate Institute (OHSU) in 2004 and my BA in Biology from the University of Montana – Missoula

in 2001. I hold State of Oregon certifications for Water Treatment 1, Water Distribution 3, and Cross Connection Specialist.

It was my privilege to compete in three National Top Ops Competitions with fellow City of Salem Public Works staff Gerald Arredondo and Doug Priest. Our team earned first place at ACE in Toronto, Canada, second place at ACE in San Diego, California, and eighth place at ACE in Atlanta, Georgia. Top Ops was an amazing experience that certainly broadened my overall knowledge in all aspects of the water industry.

It was an honor to receive the PNWS Heart and Soul Award at the 2009 PNWS Conference in Salem, Oregon.



ALEX MOFIDI

Senior Project Manager, Confluence Engineering Group

Professional Background

I am a 29-year AWWA member with half of my career in utility operations and management (MWD of Southern California) and half in consulting. I am a past PNWS Trustee-At-Large, served a brief term as an Inland Empire Subsection

Director (cut short due to a move to Australia), and am Past Chair of both the PNWS Research and Information Technology Committees. I am currently a national AWWA Premise Plumbing Committee Co-Chair with an AWWA volunteering history dating back to the 1990s, when I was appointed to multiple committees including the USEPA technical working group for Stage 2 Microbial and Disinfectants/Disinfection By-Products Rule development. I have BS and MS degrees in Civil Engineering, am a licensed Grade 3 Water Treatment Operator (CA) and a licensed engineer in multiple states.

Personal Background and Hobbies

My wife, Tracey, and I have been married for 30 years. We are mostly empty nesters now, with three adult children. Tracey and I love to travel – we visited Spain and the UK in 2019 – and hope to return to travelling after the COVID issues ease. Our next big trip is planned to be a self-led, off-road tour through southern Africa. We keep active by exploring the Pacific Northwest through hiking and bike riding, as well as fostering our new-found interests in off-road driving and camping.

Bio and PNWS Leadership

Although an engineer by education, I am also a licensed operator that spent the first 10 years of my career as a utility employee, learning how to operate and maintain water systems from operators and technicians. This on-the-job education has benefitted me tremendously: I owe the success of my career to this field-based education and volunteering activities within the AWWA. My AWWA membership and volunteering has allowed

Looking Forward

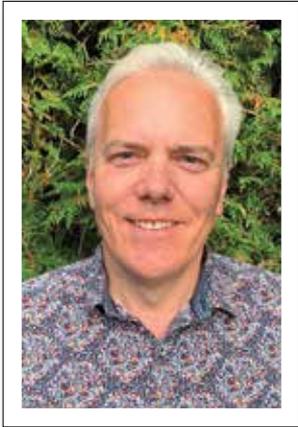
The PNWS provides opportunities for water industry professionals to attend educational trainings, network and collaborate with others who have mutual goals and purpose, share ideas, and search for support and guidance. It is the responsibility of the PNWS Board to ensure that the Section is meeting the needs and expectations of the membership while remaining in alignment with the vision, mission, and goals of the Association. This can be achieved by continued transparency, an open communication platform, and ongoing evaluation and adjustment to meet the needs of the members. I look forward for the opportunity to once again be part of the PNWS Board and serve the PNWS members and volunteers.

me to develop unique professional growth and friendships that I would not otherwise have experienced.

I have a first-hand understanding as to how the AWWA operates on both a national and local level. As a past Subsection Director, past Chair of multiple committees, and past Trustee, I am excited at the potential to represent our members at the national level. The PNWS is a top-ranking AWWA Section in leadership (with multiple AWWA past-Presidents), utility management and operations best practices, professional training and mentorship activities, and technical innovation; however, due to COVID, we all know that the AWWA and PNWS are changing. Pre-COVID, I worked with many PNWS leaders to try and develop 'outside the box' ways to improve training availability with virtual training opportunities. Although unsuccessful, I like to think this innovative pre-positioning helped ease the path to implementing COVID-era virtual training that the PNWS, Subsections, and committees can now provide.

This type of 'outside the box' thinking is what is needed now that COVID changes are here. There are continued uncertainties impacting the PNWS resulting from sustained reductions in funding due to reduced membership and in-person events. If our 'business as usual' can't be achieved soon, new ideas are needed to resolve shortfalls. Because of my varied background as an operator, an engineer, a utility employee, a consultant, an expat professional, and an active leader within the PNWS and greater AWWA, I believe I have the diverse background needed to lead our Section through this time of change.

Lastly, in my travels around our Section over the years – speaking at annual conferences, Subsection meetings, and numerous short schools – I have observed our members take our profession seriously as front-line protectors of public health. I've had the great pleasure of meeting many of our members and would be honored to represent you at the highest level of the Association. Membership needs will be at the forefront of my mind while promoting PNWS growth and strength within the AWWA, so that PNWS can remain a Section in which we all remain proud.



DOUGLAS SCHLEPP

Principal Engineer, RH2 Engineering

Looking back, I can't think of a more impactful professional organization for me and my career than the PNWS-AWWA. In the past year and a half, we have faced challenges at work and home in ways that no one could have foreseen. In response,

what I witnessed and was actively involved with as your Trustee was remarkable. As water professionals, we have continued to provide safe drinking water and become all too familiar with the types of virtual platforms used to carry on with the important work we're called to do. Despite the challenges, I've become more broadly connected to and involved with the Section and the Association.

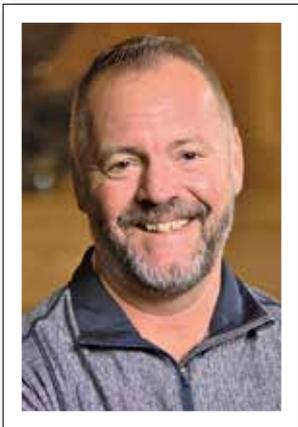
I'm thankful for the last 32 years where I have had the privilege of working for RH2 Engineering, helping to build and sustain communities, while developing lasting

relationships throughout the Pacific Northwest. Recently, we renamed the PNWS RH2 Scholarship after our founding partner, Ron Heinke. Through his mentorship, instilling honesty, humility, and integrity, Ron helped shape me as a person and professionally. It is with these principles and values that I endeavor to give back to the communities in which I work and have opportunities to serve.

My wife Susan and I have been "living the miracle" for over 24 years. Together, we have two beautiful daughters, Geneva (22) and Mya (16). As parents, we have worked to teach them the values of integrity, commitment, trust, and leadership. These are the ideals that I have embraced through my years of service in the PNWS as an Officer on the Distribution Committee, Subsection Advisory Council, King County Subsection, and as your Trustee. Regardless of my path forward, I am committed to providing trusted leadership now and into the future.

It is truly an honor to be your candidate for PNWS AWWA Chair. If chosen, I would serve with humility, enthusiasm, and integrity to realize the objectives and aspirations of the Section.

"Tough times are met with tough decisions and those decisions must be made utilizing sound data and open minds."



DAN SLEETH

Operations Manager, Covington Water District

It's my honor to run for PNWS-AWWA Chair and feel blessed to have received a nomination. The past 35 years of my life have been dedicated as a water professional in the Pacific Northwest and I currently lead the Operations Department

for Covington Water District. Over the past 25 years volunteering for the PNWS-AWWA, I have been exposed to some of the most extraordinary people who share the same passion that I do for providing safe, reliable drinking water to our communities.

The past 18 months have been difficult times and I never imagined that I would be leading a team through a pandemic, but here we are. The resiliency that our

industry has shown is nothing short of remarkable and displays the character of what it means to be a water professional. Teamwork, dedication, and flexibility: all in the name of public health. The same values that it took to get through this pandemic are what I will bring to the Board, teamwork, dedication, flexibility. Tough times are met with tough decisions and those decisions must be made utilizing sound data and open minds. I am honored to run for Chair of our Section and would appreciate the opportunity, thank you.

AWWA Background

- Washington Trustee
- Distribution Committee Chair
- Utility Management Chair
- King County Sub Section Director
- Sub-Section Advisory Council Secretary
- Small Systems Chair

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LIBBY BARG BAKKE

President, Barney & Worth, Inc. – a Murraysmith Company

It is an honor to be nominated for the PNWS-AWWA Trustee-At-Large position. I value our Association's leadership role in the water industry and its crucial task to support members' passion and commitment to providing clean, safe, and affordable water to the

communities we live and work in.

I am President of Barney & Worth, Inc., now a Murraysmith company. Barney & Worth is an award-winning strategic planning and communications consulting firm built on the principle that good decisions make great communities. We specialize in strategic communications for water infrastructure projects. We help communities fund and build facilities to deliver safe drinking water, treat wastewater to keep our rivers clean, and design stormwater systems that protect and enhance the natural environment. I am a dedicated drinking water professional and have attained Level 4 Water Treatment and Water Distribution Operator licenses in Oregon.

My 20-plus years of experience working across the region to build public support for water infrastructure will contribute to the organization's continued success. My decades-long involvement with PNWS-AWWA provides a strong base of organizational understanding. I have been a member of PNWS-AWWA since 2000 and was the Co-Chair of the Public Information Committee for eight years.

During this time, I have had the honor of sharing PNWS-AWWA members' success through conference and workshop presentations and the *Excellence in Communication Award* program. As a Board member, I will continue to support and promote the regional water industry and members to celebrate our successes and work together to meet the significant challenges ahead.

There is an opportunity at this moment to further PNWS-AWWA's commitment to diversity and inclusion in the water industry. Water utilities, consulting firms, public health professionals, universities and community colleges, and others involved in the water industry are working toward the same goal. I am committed to building on this positive synergy.

Thank you for your consideration of my nomination.



DeETTA FOSBURY

R.G., Senior Hydrogeologist, GSI Water Solutions, Inc.

It is an honor to be nominated for election as a trustee of the PNWS-AWWA. I am an experienced hydrogeologist and project manager with a passion for helping communities develop and maintain clean, resilient drinking water supplies. I enjoy working

with people from diverse backgrounds, and I am excited for the opportunity to direct my problem-solving skills toward organizational management as a member of the Board of Trustees. During this recent period of semi-isolation and working from home, I have enjoyed the non-stop company of my dogs and kept myself busy with home improvement projects and way too much TV. Although I have gotten more comfortable with on-screen meetings, I'm really looking forward to returning to in-person interactions again!

I was introduced to the Section ten years ago when I started attending Water Resources Committee meetings with colleagues at GSI and eventually volunteered to serve as Secretary of the Committee. I served as an officer for about seven years, and during that time I gained experience collaborating with other committees to develop technical conference sessions and got to know many of the volunteers in leadership at conferences and other events. Most recently, I served as Chair of the Program Committee for 2020 and worked with the Committee to develop our virtual training series after the Annual Conference was cancelled. I've grown to appreciate the value our member-volunteers bring and the important role the organization plays in our industry. I know first-hand how rewarding participation in this organization can be, and how challenging it can be to recruit others to engage in leadership positions.

I value the role that the Section has played in my own professional development, and I am deeply committed to creating opportunities for other water professionals

to help foster their careers, leadership skills, and passion for public service. As a new Trustee, if elected, I am eager to use the opportunity to listen and learn more about the organization from the more experienced board members and to contribute my experience and perspective to support the Section and its members.

As a water resources consultant, I have technical knowledge of the water industry, a history of working closely with water providers across the region, and a personal interest in education and mentorship. I hope to bring my personal skills and experience to the trustee role to advance the goals of the Section. I am particularly interested in strengthening connections between the Section committees and Subsections, and within the organization as a whole.

The concept of inclusion has been central throughout my career, from starting out as a junior professional who was already too old to be a “young professional,” to navigating a career path as a woman in a male-dominated field, and I was excited to learn that the Membership Engagement and Development Committee established the Diversity & Inclusion Subcommittee to maintain focus on this important initiative. I am very interested in supporting the organization's work to identify potential barriers to inclusion in our industry and find ways to invite and welcome members of diverse backgrounds to our ranks.

Thanks for your consideration, and I look forward to continuing to serve the Section and its members into the future!

“I am very interested in supporting the organization's work to identify potential barriers to inclusion in our industry and find ways to invite and welcome members of diverse backgrounds to our ranks.”



MICHELLE JOHNSON

P.E. Project Manager, J-U-B Engineers

It is such an honor to be nominated to run for a PNWS-AWWA Trustee position. The Section has been such an asset and support network for me during my career, and I am excited about the opportunity to have a bigger role in developing

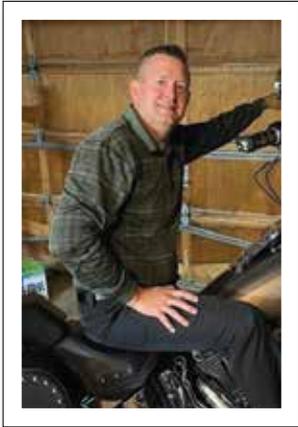
and promoting the organization. I have worked for J-U-B Engineers as a Civil Engineer for the last 16 years and been fortunate to be able to focus a large portion of my work on drinking water, which is what I love to do. My first exposure to the AWWA was through my father and grandfather. My grandfather was a civil engineer and a lifetime member of the Section, and my father, also an engineer, continues to regularly attend the Section Conference. My first hands-on experience with drinking water was operating a camp water system that my father, grandfather and uncle had designed at a summer camp in McCall, ID, where I worked during the summers while I was in college. This experience taught me a lot about day-to-day operation of a new system and the criticality of providing safe, reliable drinking water, and was a big driver in my decision to work in this field.

My personal involvement with the AWWA began about eight years ago when I joined the Inland Empire

Subsection (IESS) Board. My tenure on the IESS Board provided many leadership opportunities, and many great friendships. I have had the opportunity to serve on the Local Arrangements Committee for the Section Conference, host a number of trainings to provide CEUs and networking to our members, help coordinate the IESS Subsection Golf Tournament and other philanthropic events, and coordinating the very first virtual IESS Truck Rodeo this past spring.

Through my involvement on the IESS Board, I have had the opportunity to attend a few Trustee meetings and develop an understanding of the expectations of the Board members and the role they play in directing the Section. I am excited about the opportunity to be a part of that board and be a part of the process. The friendships and connections that I have made have been so rewarding and beneficial to me in both personal and professional ways. I am looking forward to the potential opportunity serve the Section in a role that can helping find ways to continuing to be able to provide critical educational opportunities to our members and equally critical networking opportunities.

My husband Ryan and I live and play in the inland northwest with our two daughters who, at 10 and 13, really keep us on our toes. We enjoy skiing, mountain biking, camping and most any activity that gets us outside and we can do together. One of my youngest daughter's favorite pastimes during road trips is to count water tanks... maybe another generation of water engineering in the making.



PAT EVERHAM

Water Manager, City of Richland Washington

It is a great honor to be presented with the opportunity to run for Section office. I am excited about contributing to this great organization. With COVID, the Section has had many struggles and adaptations to make to keep our family moving forward. I look forward to helping us continue to improve and provide the needed support to our Section. I have been an AWWA member for over 25 years and appreciate what it has done for me. I have chaired two Section conferences in the Tri-Cities and served on our Subsection Committee in many different positions. I have been the President of the Central Washington Subsection

for the last couple of years. I believe that volunteering and contributing to this cause has helped me grow into the person I am today.

Professional and Personal Life

I have been a water professional for 26 years. I worked for the City of Kennewick for 22 years and have been at the City of Richland for the past four years. I have a Bachelor's degree in Cellular/Molecular Biology and a Master's degree in Public Administration. I have my State of Washington Level IV Certifications in Water Treatment Plant Operations, Water Distribution Manager and Wastewater Treatment Plant Operations. I have been married to my beautiful wife for 30 years and have two awesome boys: Kaulin, 23, is an accountant at Gesa Credit Union and Korey, 20, is in his senior year at WSU, studying computer science.





TONYA REISS

Maintenance Supervisor, City of Spokane Water Department

I am honored to have been selected as a PNWS-AWWA Washington Trustee candidate. The people in this organization have inspired and mentored me to be the person I am today with a family and career that I love and am proud of. It is an

honor to be a part of an organization that fosters the success of its members so they can provide life's most vital resource to our communities.

Professional Involvement

In 1997, I began my career with the City of Spokane as a Laborer and have worked my way up through the department from Water Service Specialist (Crew leader & Backhoe operator), Water Maintenance Foreperson, to my current position as Water Maintenance Supervisor. I have been a member of Spokane Regional Cross Connection Control committee for nine years – seven of those as a Board member, Vice President and President. I have participated in many capacities at the PNWS-AWWA Subsection, and Section levels. In 2014, I served on the Inland Empire Subsection Board for eight years as a Board member, Vice President, President and in 2015, received the *SAC Activity Award*.

My first experience with the PNWS was in 2012, when I was a member of the LAC for the 2013 Conference in Spokane. The Spokane Conference is where I was honored with *Heart and Soul Award*. Honestly, I did not even know that anyone knew I existed at that point except for poor Kyle Kihs, who answered my numerous questions about the Section. (Thank you Kyle). The 2012 Yakima Conference was the first one I attended. I was amazed with the people I met and how much each and every one of them participated to make the Conference a success. Throughout the years, I have organized and taught classes for conferences, the Customer Service Committee, Cross-Connection Control Committee, Inland Empire Subsection, and City of Spokane Water Department. I served many years on the Customer Service Committee as a member, Secretary, Vice Chair and Chair. It was a great experience working with the team that

organized the new (at that time) Customer Service training. I have been Secretary, Vice Chair and Chair of the Subsection Advisory Council and am currently the Idaho/East Washington & East Oregon Coordinator. I am also the current Chair of the Cross-Connection Control Committee. Over the years I have been participated at the AWWA national level with involvement in the Water Loss, Cross-Connection control, Customer Service and Customer Metering Practices committees.

Vision

As a possible incoming Trustee, I am hesitant to call for specific initiatives before I have an opportunity to observe and learn about the current state of the Section at the Board level. This last year has been a tough time for all of us to find the time and mental fortitude to get through the new obstacles that have been placed in our paths – all while keeping our friends and families (at work and home) as well as surrounding neighbors and communities safe and healthy. I have been overwhelmed with the many responsibilities I have with the City of Spokane and the PNWS – I am sure many others have been feeling the weight of things, too. It feels like we are coming out of the clouds to only find ourselves back in the thick of it. I have seen many innovative ways that the Section Board and Committees have been reaching out to the membership to provide training and guidance over the last year. I am passionate about training and the 2020 vision. We have never seen the job openings in our industry like we have encountered in the last 10 years – in that timeframe, the City of Spokane Water Department has had a 60% turnover. I am an optimist and will continue to work with the many people that I am thankful to call colleagues and friends to navigate the ever-changing times and challenges we will face together.

Personal Note

My husband Bob and I have met at the City of Spokane Water Department in 1997 and have been married for 22 years this past September 11. We live and play in the woods with our dog, Cooper, and crazy cat. We enjoy hunting, camping, hiking, fishing and home improvement projects.

We are blessed with many nieces and nephews that keep us busy with supporting them in their many interests (cheer competitions, volleyball, and Bandolero car racing).

Thank you for considering me for the Trustee position.

"It is an honor to be a part of an organization that fosters the success of its members so they can provide life's most vital resource to our communities."



JOEL CARY

Water Resources Division Manager, Tualatin Valley Water District

Hello Pacific Northwest Section AWWA Members! I'm excited and quite humbled to be nominated as a Trustee for our Section. Having been an active member for nearly 20 years, I can honestly say it's all of you that make this such a wonderful and fulfilling

industry. If elected, it's my goal to continue supporting the professionals in our industry, both the newcomers and our tenured staff who have dedicated their time to this rewarding career of public service.

We've faced several new challenges these last couple of years, which is probably the biggest understatement anyone could write; 2020 and 2021 have included some of the most life-changing events for all of us. Beginning with the onset of COVID-19, then the unprecedented wildfires so many of our communities faced, followed by a severe winter weather freeze that tested our emergency operational plans, and finally the chlorine shortage that impacted agencies across the region, there has been no lack of crises that we have successfully risen to meet, head-on. Being faced with these challenges has highlighted something like never before: how dedicated and talented we are all. Our ability to continually adapt and meet the needs of the customers we serve is truly remarkable.

Professional and Personal Life

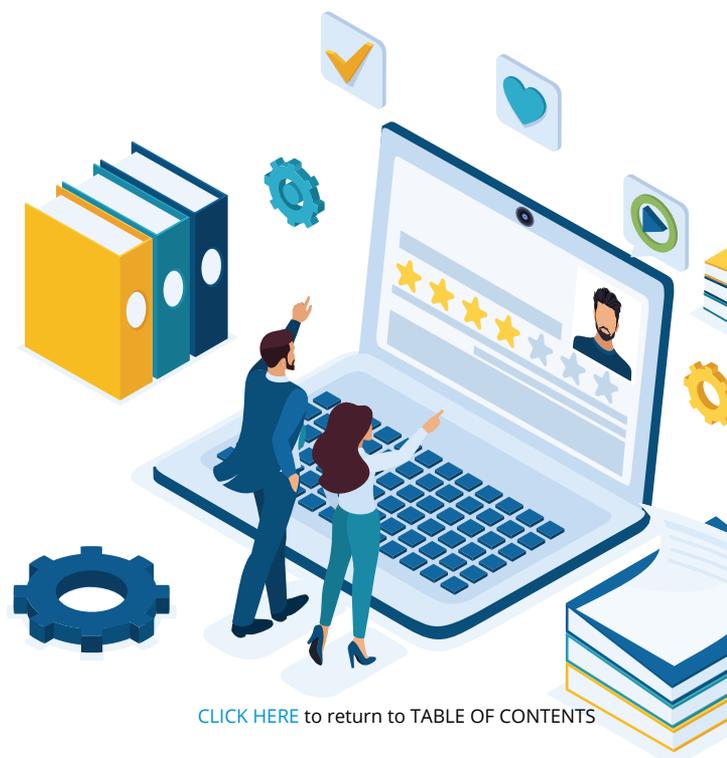
I have over 20 years in the water industry and no, I wasn't 15 when I started as everyone likes to joke... but it's not too far off! I'm currently the Water Resources Division Manager at Tualatin Valley Water District and more recently, 'acquired' the additional role of General Manager for the Willamette River Water Coalition. As one of my former managers used to say with a smile, "No good deed goes unpunished." I genuinely love what I do and along with an excellent team of staff, oversee water quality and regulatory compliance, cross connection control, water rights, and a variety of watershed related activities under development. I also work with our executive leadership team in support of our various agency Boards, frequently providing updates to our elected officials on a variety of topics. The skills I have learned along my career path are what I hope to bring to the table as a Trustee: professionalism, leadership, transparency, candor, and crucially, support of the Section Board. Also, to make sure we have some fun along the way!

As far as AWWA activities, I served on the Oregon Water Utility Council (OWUC) leadership team for the last three years and am finishing my role as Chair this year, which has been an amazing and deeply rewarding experience.

From the ongoing legislative engagement – often meeting with our legislators and providing oral testimony in support or opposition of key bills impacting the water sector – to actively building relationships with a variety of key stakeholders across our state, these responsibilities on behalf of OWUC membership have helped me develop a much deeper appreciation for our industry's needs **and** the expertise we possess as water supply professionals. I served on the local host planning Committee for the 2017 WQTC in Portland and have also been involved in the Water Quality Committee at times for nearly 15 years, planning multiple section workshops along with being the Committee's webmaster early in my career.

If you've read this far, thanks for considering my nomination. If elected, I would undertake my role as a Board Trustee and the associated Committee assignments by setting the following priorities:

- sharing the mission of the Section with members and Committees to create alignment of our goals and objectives and supporting Board members during Trustee meetings;
- providing my own insights when needed about where the Section could or should make any changes to further promote its mission;
- and last, to 'lead by example' in order to highlight why the water sector – and especially in the PNW Section – is a career worth continuing to pursue for our newest member.



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ERIKA MURPHY

P.E., Senior Engineer, Carollo Engineers

It is an honor to be nominated for the position of Trustee for the PNWS-AWWA. I have been an active member of the Northwest Oregon Subsection for ten years and look forward to the opportunity to provide leadership and passion at the Section level.

As soon as I joined the AWWA in 2011, I became a member of the Engineering Committee and was nominated as Chair a few years later. As Chair of the Engineering Committee, I focused on recruitment. Enlisting new members – and making sure that all members feel welcome and useful – is critical. People are the strength of the AWWA and the more voices and ideas in the room, the richer our organization is. The PNWS-AWWA is so valuable in providing networking opportunities and the place to build relationships in the industry. Between conferences, training, Water For People fundraising events, and golf tournaments, there are ample opportunities to engage with other professionals in the industry – regardless of job position, workplace, or experience level. There is value in getting to know each other on a personal level and building relationships that aren't always focused around water conversations or our jobs. When presented with a question or challenge at work, I often reach out to someone who I have shared laughs and maybe an adult beverage with, to talk through possible solutions. As we (hopefully) see ourselves on the back end of the

pandemic, it is a crucial time to reengage members of committees and subsections. Many colleagues have felt isolated and disconnected from others during the past 18 months and it will take focused outreach to bring people back together and rebuild the strong, active membership of the PNWS-AWWA.

I have worked in the engineering field for almost 20 years, with my last 10 years being focused solely on drinking water. Throughout my career, I have worked in both the private consulting and public service sides of the water industry. My passion is being an advocate for drinking water and I would love the opportunity to continue my service as a PNWS-AWWA Trustee. I have learned different skill sets being both a municipal water provider and a consultant. There are often multiple technical solutions to any problem but the solution is usually much more complex than just engineering. Public perception, finances, politics, partnerships, and stakeholder commitments must also be considered as part of any solution to a problem. I plan to take this multi-faceted approach to the Trustee position to find effective ways to lead the PNWS.

When not working, my husband Aaron and I, with our dog Kinta, can be found in Pacific City. We will either be frolicking at the beach, paddleboarding or kayaking on the Nestucca River, or planning our next vacation.

Since I transitioned my career to focus on drinking water ten years ago, I have received so much from the PNWS-AWWA. I look forward to giving back and ensuring that the section remains strong and the members passionate about our mission.



"People are the strength of the AWWA and the more voices and ideas in the room, the richer our organization is."



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Inland Empire Subsection

Thank you for the opportunity to submit this article and inform you of some of the wonderful achievements made by the Inland Empire Subsection (IESS). The AWWA, PNWS, and IESS all provide invaluable resources, and we are all proud to be a part of these great organizations. Special thanks to the many volunteers, their employers, and families' support for the many hours dedicated. None of this is possible without you!

Our current Board is:

- President – Bob Cunningham, Irvin Water District
- Vice President – Seth McIntosh, City of Spokane
- Past President – Bijay Adams, Liberty Lake Sewer and Water District
- Director #1 – Sara Broderius, Vera Water and Power
- Director #2 – Brandon Rose, Hayden Irrigation District
- Director #3 – Andy Wilson, Consolidated Supply
- Director #4 – Jessica Waller, J-U-B Engineers
- Director #5 – Doug Greenland, City of Spokane
- Secretary and Treasurer – Maura Kegley

Awards

Michelle Johnson, J-U-B Engineers, was acknowledged for her outstanding service as Past President. She led the IESS's first (and hopefully last) virtual Truck Rodeo, which was a big success. Special thanks to her and the many volunteers, sponsors, and presenters that made that event possible.

Dan Kegley, GSI Water Solutions, was the winner of the *George Warren Fuller Award*. He spent many years on the IESS Board and served as Chair of the PNWS. Dan has dedicated much of his life to serving the water industry; this Award is well-deserved.

City of Spokane Water Department is the recipient of the *National Drinking Water Week Award*. The *Commitment to Excellence Award* was awarded for dedication to providing safe and reliable drinking water to their customers and neighbors. Spokane Water was nominated by Ed Parry, Regional Engineer for Department of Health, for its work eliminating lead service lines. Another nomination came from Kevin Anderson, Public Works Director for City of Airway Heights, for the City of Spokane's assistance with PFOS/PFOA contamination in Airway Heights's primary wells. Both letters named

Dan Kegley for his part, while acknowledging the full team effort in achievements. Congratulations to the people of City of Spokane Water Department for the recognition of your professionalism and dedication to the industry, public health, and your customers.

IESS's "Muddy Boots" winner is Zachary Hardwick, Spokane County Water District No. 3. Zac stepped up to the plate after the field supervisor left for a job closer to home. SCWD3 also suffered the unexpected death of one of the field crew. With just two years in the field, Zac took over and completed a plethora of tasks, kept the system intact, and made improvements along the way – all the while studying for and attaining his WDM. This is a credit to his admirable leadership finesse. Well done, Zac.

Dan Kegley still volunteers in many capacities, including leading the charge for the Annual IESS Golf Tournament, which was made successful because of the volunteers, sponsors, and golfers. The money was raised for the E & T Fund. This allows perpetual scholarships at 5% of the fund balance, currently \$1,500/year. Thank you all.

This year, we plan to reach more people with hybrid classes – starting with the October 20 well class in CDA, hosted

Thinking of water in new ways



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Subsection Updates

by Sara Broderius and Dan Kegley with speakers from GSI Water Solutions. There is limited in-person space so register now. More classes are coming.

Not mentioned nearly enough is Maura Kegley. She is listed above as the Secretary/Treasurer, which means she is what holds our organization together. The Secretary/Treasurer position plays a part in almost every

job we do, yet it is an underplayed title in all organizations. And I have certainly undersold her value to this organization in this article. Using the same 600-plus words I could bullet point what she has done this year, only covering a fraction. Maura is the cohesion from getting a new Board member every spring to taking that Board member through Past President

and running the Truck Rodeo eight years down the road. Every Board meeting, every class, every article... thank you, Maura. 🙏

Respectfully submitted,
Bob Cunningham
IESS President
irvinwater@windwireless.net
509-939-7660

King County Subsection

This fall kicked off with the Annual Charity Golf Tournament on September 17: our first in-person event since March 2020. We're looking forward to the rest of the fall season with upcoming training events, and planning for our Water Olympics event in March 2022.

New Members

If you are a new member to the King County Subsection, we would love to get you connected and learn more about your interests. Join us at one of our monthly meetings, scheduled every third Wednesday of the month, to learn more. If you are interested in attending, please contact the Subsection's Secretary, Jon Miner, at jon.miner@murraysmith.us.

Training

The Subsection is committed to offering classes to help our members meet their CEU requirements. Planning is underway for a program of more virtual classes this fall.

Look out for further announcements and registration information. For questions related to classes, please contact our Program Director Jim Konigsfeld at jim.konigsfeld@spwater.org or 425-295-3217.

Transitions and Recruitment

Summer brought with it some transitions to the KCSS leadership. Please welcome our new volunteers/Slate of Officers!

- Treasurer – Amerika Stodola
- Young Professionals and Student Liaison – Maeve Harris, Murraysmith

The Subsection is still looking to fill the following role for 2021:

- **Webmaster:** We are looking for a KCSS Webmaster to keep the subsection website up to date and help get information out to members. The role is a one-year term, with the option to extend for more terms. We are looking for someone who has a passion for communications, and an interest in helping the subsection improve our online resources.

If you are interested in the Webmaster role, please connect with the Subsection President, Joanie Stultz, at jstultz@brwnncald.com. 🙏



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25TH ANNUAL CHARITY GOLF TOURNAMENT

The King County PNWS-AWWA Annual Golf Tournament took place on Friday, September 17, 2021, at the Auburn Golf Course in Auburn, WA. With over 80 registered attendees and 10 holes sponsors, the Tournament was well attended by both private and public industry professionals.

It was great to finally gather safely in person and enjoy beautiful greens, great company, and ample time to network. Participation in the event provided recognition and visibility for our sponsors, as well as an

opportunity to support various philanthropic efforts within the water industry including Water For People and the Water Equation. Thank you to all the attendees, sponsors, volunteers, and Subsection officers for making this event a success!



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

We've continued to connect as a Section through virtual events, trainings, and Board meetings, alongside planning for what we hope will be our first in-person gathering as a Section next May. In addition, the Summer brought opportunities to get outside, and safely gather with fellow AWWA members at several Subsection charity golf tournaments.

Engage New Members

The MEDC is here for you.

We're tasked with the following:

- connect new members with resources,
- provide membership lists to subsection leaders,
- run the PNWS Mentorship Program to pair mentors and protege on an annual basis, and
- support Student involvement in partnership with the YP Committee.

Whether you're a new member looking to get connected, or a Subsection leader and need help with tracking your membership lists, we're here for you. If you need membership support, please contact MEDC Chair Chris Young at chris.young@murraysmith.us or visit www.pnws-awwa.org/get-involved/awwa-membership.

We Need You - Join MEDC

The MEDC is actively recruiting for new committee member volunteers. If you'd like to learn more or join us at our next monthly meeting, please contact Chris Young at chris.young@murraysmith.us.

Diversity & Inclusion (D&I) Committee Updates

The D&I Committee aims to foster a welcoming and inclusive AWWA culture that champions meaningful institutional and individual change regarding diversity and equity in the water industry. We meet the first Wednesday of the month - to be a part of the conversation, please contact D&I Chair Esther Chang at esther.chang@jacobs.com.

The Committee is looking forward to the conference this May, with several presentations focused on topics related to diversity, equity, and inclusion in

HISPANIC HERITAGE MONTH

During the months of September and October, the PNWS and AWWA celebrate Hispanic Heritage Month and recognize the contributions Hispanic and Latino Americans extend to support public health. Hispanic and Latino Americans rich history and contributions to the water industry are celebrated, dating back to before the founding of AWWA in 1881.

To learn more about Hispanic Heritage Month and ways to participate, visit www.hispanicheritagemonth.gov.

the water industry. Look out for the D&I related presentations in the conference line-up.

Membership Survey Update

Thank you to all who participated in the Membership Survey this summer. The D&I Committee reviewed the results and prepared a summary and takeaways, which were presented at the Fall Training. The objective of the Survey was to better understand

current membership and how to attract and retain members. Overall, participants felt included in the Section and recognized areas for improvement where the MEDC and Board leadership can help shape programs and communications to promote a more inclusive environment.

Based on the feedback from the Training, the Committee is working to develop our plan for using the Survey in the future to continue to learn and grow. 

MEDC Purpose: To support the Pacific Northwest Section (PNWS) of AWWA 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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PROACTIVE PREPARATION FOR LEAD AND COPPER RULE COMPLIANCE

By Nathan Dunahee, P.E.



Changes to the U.S. Environmental Protection Agency Lead and Copper Rule require water service providers to develop an effective compliance strategy to protect the public, especially children and vulnerable populations. The time is now for proactive measures that address public health protection and economic realities.

THE ORIGINAL LCR: REACTIVE AND INEFFECTIVE

There is no safe level of exposure to lead. It can bioaccumulate in the body and poses serious health risks to the brain and nervous system. Even at low exposure levels, lead is particularly dangerous and exposure to elevated levels of copper can result in nausea and potential liver and kidney issues.

Lead was widely used in plumbing materials until banned in 1986, resulting in an estimated 6.5 million to 10 million homes in the U.S. with lead service lines. The Environmental Protection Agency (EPA) introduced the original Lead and Copper Rule (LCR) in 1991 to protect

public health, establishing action levels at 1.3 mg/L for copper and 0.015 mg/L for lead. These action levels remain unchanged in the revised LCR. When these action levels were exceeded in 10% or more of the tap water samples collected during any monitoring period, improvements to the water systems were required.

Unfortunately, the frequency of obtaining water samples that would trigger LCR actions was rare because of the sampling procedures in place. This step required consumer involvement to perform advanced sampling methodology and was not necessarily performed at sites

representing the true level of contaminants in the community. The LCR required sampling from the tap in homes and buildings, specifying that a draw of water should come from the first liter from the tap after a minimum of six hours of no water usage. However, not all buildings and homes were sampled, and in some cases they were not sampled correctly. The first liter often filled sample bottles with water from the portion of copper or plastic pipe in the home, not the lead service lines that were the true source of the problem. As a result, the data collected was not always reflective of the actual conditions.

Some water utilities were proactive in replacing lead service lines, even when they were found to be in compliance. However, this was not always the case, as LCR loopholes allowed for many problematic lead service lines to remain in service. It was estimated that the LCR resulted in water utilities replacing only 1% of lead service lines due to LCR violations. Inadequate sampling procedures and loopholes allowed neighborhoods and communities to suffer the health consequences and financial burden, thus triggering the need for revisions to the LCR. This new rule will require many utilities to make changes to their current treatment, finished water stability and distribution systems.

THE REVISED LCR: PROACTIVE GOALS FOR CHANGE

While the LCR has undergone minor alterations since 1991, the final LCR revisions in December 2020 reflect a comprehensive set of changes. The new LCR uses enhanced testing protocols targeting lead service lines, improved tap sampling procedures, expanded testing, and closing of loopholes to speed up finding and removing materials containing lead in drinking water systems. Key LCR revisions include:

- Science-based water sampling procedures.
- Required testing in schools and childcare facilities.
- Establishment of trigger levels for earlier mitigation in more communities.



- Closing of loopholes to drive an increased number of full Lead Service Line (LSL) replacements.
- LSL inventory of location and materials.
- Communications to communities of lead service line locations and sampling results.

UNDERSTANDING THE CURRENT STATE

For water utilities, service providers and municipal authorities, the revised LCR may be daunting. The changes are sweeping and swift. All public water systems must comply with the revised LCR, with timelines dependent on system size and detected lead levels.

Revisions to the LCR start the clock for water utilities to reevaluate their existing compliance, improve sampling and collecting representative results, close loopholes that delay improvements, and protect public health for all schools and communities. As the first major change to the rule in 30 years, the revised LCR focuses on proactive measures to identify and mitigate lead materials in water service lines in homes, schools and buildings across the country.

Water service providers must develop an effective compliance strategy that balances protecting

public health while also addressing economic realities.

As a first step, water providers should undertake an honest self-assessment. Understanding where water operations are currently is a good starting point before moving forward. Water providers should explore questions such as:

- Are we sampling at the correct locations to provide meaningful and accurate data that represents actual conditions?
- Do we have any issues or violations in meeting current LCR compliance?
- What are the maximum lead concentrations in our system and where are they located?
- What treatment strategies are in place for finished water stability?
- Do we have a program for replacing lead service lines?

This self-assessment provides a quick idea of where issues might exist, what information is unknown and what areas of focus are needed. With just five years to comply with the LCR, it is essential to prioritize actions. Assessing existing operations and infrastructure helps identify potential low-cost improvements that can be promptly addressed. It also helps with planning for infrastructure and capital programs.

PREPARING NOW FOR SUCCESSFUL COMPLIANCE

Once service providers have a good understanding of the current state of operations, there are systematic actions that can identify and prioritize improvement opportunities within a water system to achieve LCR requirements and optimize cost.

PROCESS EVALUATION

Evaluation of water treatment processes can identify problem areas that need attention and improvements that may be required. Finished water stability analysis helps to understand the different parameters at play and determine if water quality is precipitating, dissolving, corroding or causing distributed water to be at risk.

A process evaluation can also help systems get the appropriate use of existing infrastructure and identify any needed adjustments to improve treatment and achieve water quality goals.

CORROSION TESTING

Understanding finished water stability is essential for producing high-quality water, from treatment facilities to the customers. The correct corrosion testing protocol, analysis of stability indices, and evaluation and adjustment of pH, alkalinity, hardness, buffering capacity and other water quality parameters see that finished water is within the acceptable water quality standards. To target necessary adjustments that can be implemented quickly, water providers should strive to improve the testing protocol, identify

who is doing the testing, consider whether testing is done correctly and analyze trending results.

FACILITY IMPROVEMENTS

Evaluating a water treatment system with the LCR objectives in mind can help identify improvements or alternatives to achieve compliance. Because of recent advances in best practice procedures, operational enhancements can be achieved without requiring capital investment. For some water treatment facilities, new technology may be required to improve existing water quality requirements.

A comprehensive and current inventory of water treatment facility assets and operational procedures provides direction for developing an LCR compliance strategy while optimizing existing processes.

CONCLUSION

Antiquated distribution and plumbing systems throughout the country will result in the ongoing deterioration of an extensive network of lead service lines requiring attention. While the original LCR may have had good intentions, it was not adequate to protect public health or to address the problem of lead and copper leaching into drinking water supplies.

The revised LCR introduces considerable changes to address the risk of lead in drinking water proactively. Water service suppliers must act now to better understand their assets, operations and lead

service line infrastructure to develop plans and achieve compliance. This will ultimately help communities reduce the risk of toxic drinking water contaminants. The challenge resides in developing a strategy to achieve these public health goals both effectively and cost-efficiently.

BIOGRAPHY

Nathan Dunahee, P.E., is a lead process engineer with Burns & McDonnell in its Water Technology Group. Nathan has 18 years of experience in drinking water evaluation, optimization and design. Nathan currently serves on two of the American Water Works Association's technical committees that focus on emerging water quality concerns, taste and odor, and optimization. He graduated from the University of Illinois with a bachelor's in civil engineering and master's in environmental engineering as a graduate research fellow. Nathan then attended the University of Michigan, where he conducted three years of post-graduate research through the EPA's fellowship program.

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Combined Approach to Protecting Water Sources

By Matt Starnes, Product Marketing Manager, Bucher Municipal North America, matthew.starnes@buchermunicipal.com

When thinking about conserving and keeping our limited freshwater supplies safe, two types of solutions – street sweepers and sewer cleaning tanker trucks – come to mind.

Street Sweepers

Street sweepers – compact sweepers and truck-mounted sweepers – are the best at keeping the streets clean and preventing freshwater supply pollution.

The compact sweepers' maneuverability ensures directional stability and safety for workers and city dwellers. The compact's agility shines with its narrow design – working within municipal streets, bike lanes and sidewalks – plus it is economical, has diesel fuel and electric options, and operates quietly.

Heavy-duty truck-mounted sweepers have three different sweeping technologies:

- **Mechanical Street Sweepers** use a series of brushes to sweep debris into a hopper, then unload the waste into a dumpster or dump truck bed.
- **Regenerative Air Street Sweepers** provide cost-effective, efficient road sweeping with forward-facing digger gutter brooms and a full-width suction to maximize speed. Combined with ergonomic operator controls and low running costs, regenerative air sweepers provide an ideal solution to airports, long low cambered roads and urban environments.
- **Pure Vacuum Street Sweepers** are suited for catch basin cleaning, street sweeping and porous pavement. The suction mechanism

will suck the debris into the hopper container for disposal. Truck-mounted sweepers come in a range of dependably configured options from single-engine hydrostatic truck-mounted sweepers to twin-engine sweepers.

Street sweepers play a larger role than keeping things clean. The Environmental Protection Agency (EPA) created the PM-10 standard that regulates the number of particles in the air that are small enough to reach the lower regions of our lungs; therefore, street sweepers protect our streets and our lungs. Sweepers also help protect our lakes, rivers and other freshwater sources by preventing potentially harmful substances from entering storm drains.

Unfortunately, sewer problems are not un-smelled. When residents call their municipalities for help, usually a stinky situation or backup into their homes is an emergency.

Combination Units and Remote Reels

Flexible sewer cleaning units are a 'first responder' tool. These vehicles can get into tight and densely populated metro areas, since they have a smaller footprint than a recycling or supersucker truck. Combo units are a powerful tool for preventative and emergency cleaning of mains, septic and collection tanks and the transportation of dangerous goods.

“The benefits of using street sweepers and sewer cleaning tanker trucks in unison is a smart offense in protecting and conserving freshwater.”

Municipal Separate Storm Sewer System (MS4) Study

The MS4 Study found street sweepers to be more environmentally- and cost-effective than other best management practices (BMPs) against water pollutions. To learn more, visit www.florida-stormwater.org/assets/FSAEF/Research/MS4/UF%20FDEP%20MS4%20Maintenance%20Final%20Report_edited.pdf.

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The benefits of using street sweepers and sewer cleaning tanker trucks in unison is a smart offense in protecting and conserving freshwater.

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How SURE?

SUstainability and REsiliency for Conventional Filters

By Stuart F. Humphries, Director – Filtration Technologies, Orthos Liquid Systems, Inc. shumphries@orthosfilters.com

For over a century, conventional granular media downflow filters have provided reliable, economic water and wastewater treatment. Even today, this type of filtration system provides proven treatment capabilities and long-term maintenance benefits. Though the process of granular media filtration is relatively well-understood, the long-term success of a filter may ultimately depend more on the filter underdrain design.

Conventional Filter “ABCs”

The filtration operation for conventional filters is comprised of two distinct phases: filtration and cleaning (backwashing). The filtration phase to remove particulate material is accomplished by passing the water downward through a filter bed comprised of one or more granular medias (e.g., sand, anthracite, GAC), with or without chemical addition. The solids removal process is accomplished by several removal mechanisms such as straining, sedimentation, impaction, interception, adhesion, and adsorption. The filtration phase must end once the suspended solids in the effluent increase to an unacceptable concentration or when a limiting headloss occurs across the filter bed. Backwashing cleans the filter media by reversing the flow through the media to send the solids-laden wash water for treatment elsewhere. Air is often used in addition to water, either sequentially or simultaneously, to provide enhanced media scouring.

All granular downflow filters must contain media and an underdrain that:

- 1) supports the granular media;
- 2) withstands maximum filtering headloss;
- 3) uniformly allows percolation of the filtrate across the media bed;
- 4) uniformly distributes backwash water across the entire bed at varying flowrates;

- 5) uniformly distributes the scouring air either separately or simultaneously with the backwash water;
- 6) withstands the upthrust created at the maximum rates of backwash and scouring air; and
- 7) resists corrosion.

Underdrain Types

Filter underdrains are principally comprised by one of the following: (a) suspended concrete slab or steel plate with integral filtration nozzles and plenum below; or (b) set of round-, triangular-, or block-shaped parallel pipes (laterals) containing holes, slots or nozzles and that connect into a main header pipe or duct (flume).

Suspended underdrains utilize an elevated floor, supported on columns or between dwarf walls, creating a plenum underneath. The plenum space, with at least 6” to more than 30” of vertical height, advantageously provides for inspection and service through an access hatch. Floors are constructed using steel plate (for small filters), from precast slabs, or by pouring a monolithic concrete slab on top of base form panels. Monolithic slabs minimize grouting (i.e., potential leakage points) and include reinforcement bars linked to the tank structure to create a robust design that withstands very high vertical forces. Nozzle sleeves are cast into the concrete floor, and once curing is finished, nozzles are quickly installed. Unlike nozzle-less lateral underdrains, suspended floors may be pressure-tested to ensure structural capability by inserting blanking plugs into the nozzle sleeves.

Lateral underdrains consist of a main header pipe or flume with several parallel laterals branched perpendicularly off one or both sides of the header or flume. The headloss in each lateral includes entry, friction, and discharge losses, the sum of



which vary water and air flowrates considerably under different operating conditions. Lateral underdrains are often fixed in place by grout or anchor bolts and buried in gravel to support and retain media and improve backwash performance.

Underdrain Design

Except in specific cases, filter underdrains must be level for uniform filtration across the bed and to evenly distribute the water and air fed during backwashing in a two-dimensional horizontal plane. Uneven, shallower parts of the media bed will create undesirable and increased filtering, backwash, and separate air scour flowrates. For simultaneous air-water cleaning, a zone of lower water flow may receive a higher proportion of air due to reduced water flow back pressure.

Filter underdrains must either have a fine straining method to hold back the media or have graded gravel to prevent media migration and loss. For underdrains requiring gravel, packing layers must remain stationary during backwash – if disrupted, the gravel must be re-laid.

Backwashing, particularly at increased rates, will not regrade the material, and instead will likely cause spouting through the media. Air scour and simultaneous air/water washing

make problems from gravel layer undulations much worse. Suspended underdrains with large slot opening nozzles and gravel permit horizontal short circuiting, convergence of flow from several nozzles, and formation of a spout through the packing layer. Fine slot nozzles to retain media directly above the suspended underdrain eliminate horizontal short circuiting and also provide the advantage of a lower hydraulic filter profile.

Lateral systems (triangular or block with slots, round pipes with nozzles) that have openings fine enough to retain the media can block up if backwash water is not entirely free of grit. In contrast, because suspended underdrain velocities are relatively low, nozzles with very fine slots may be used without concern as grit particles in backwash water may settle in the plenum.

Backwash Method

Critical to a filter is the ability for its media to be effectively cleaned. With proper backwashing, conventional filters have many significant advantages over other filter types, to include much longer filter runs with smaller overall backwash volumes; however, not all conventional filter backwash capabilities are "created equal."

Velocities under a suspended underdrain are relatively low, which reliably leads to good backwash and air scour distribution. The large plenum area buffers changes and provides uniform water and air flowrates across the filter floor. Comparatively, underdrains with laterals produce higher velocities, friction loss, and the Bernoulli effect, resulting in limits of effective lateral length, additional filter design concerns, and increased maldistribution. The flow pattern down the length of a lateral forms an asymmetric "U" shape and changes significantly according to flowrate, leading to operational challenges and structural design concerns. When the air/water interface is created during air scour, without a sufficient lateral cross-section for the air to pass down the lateral length, waves are created that produce intermittent discharge and damage. As inferred previously, nozzle-less lateral systems cannot be

pressure-tested following installation, introducing doubt of installed structural capability during these conditions.

Air is distributed through laterals using the orifices or slots located in the crown of a round pipe or triangular lateral, near the top of the primary duct of a block-shaped lateral, or through slotted nozzles mounted on a round pipe lateral. For triangular and nozzle-less round laterals, orifices must be engineered only for a specific set of flowrate conditions, which unquestionably change during backwash and air scour operation and lead to poor performance and orifice blockage.

Air is distributed through a suspended floor through precision-engineered nozzles/strainers. A nozzle has three main components – the strainer to retain media, a water control orifice, and a stem with air orifices. Nozzle stems include a top air bleed hole and lower air metering hole or slots. As scour air is supplied, air collects at the plenum top and depresses the plenum water to form a uniform air/water divide line across all filter stems. The air bleed hole triggers the flow of air and the resulting headloss causes depression of the plenum water interface. Once the air metering hole or slots are exposed, this larger orifice area stabilizes the water level; however, when air and water flows simultaneously, the driving head increases, forcing air into the stem, which raises the plenum water level. By correct selection of the stem bore and of the size and location of the orifices, a range of air/water interface level may be beneficially maintained under both air-only and simultaneous conditions. After air scour has ended, the air bleed hole allows venting of air from the underdrain.

Market Analysis

Though nozzle-based underdrains predominate the international municipal market, block-shaped lateral systems are prevalent in the United States. The molded block contains a triangular or semi-circular primary manifold that distributes into an outer pair of secondary ducts, which in turn feed an upper face (or cap). Multiple lengths of blocks are laid side-by-side and grout is placed between these

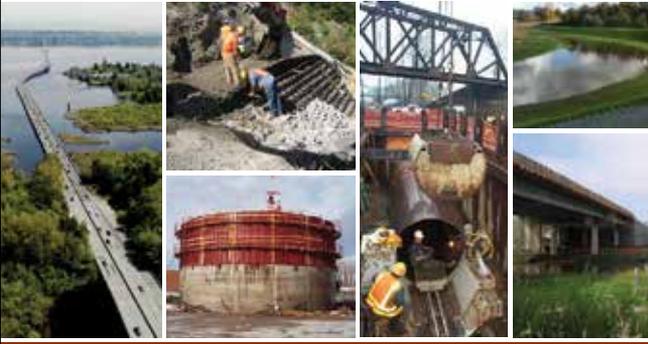
laterals. Originally (late 1970s), the cap contained large perforations requiring gravel; however, to avoid the packing layer in the early 1990s, sintered polyethylene bead slabs were screwed onto the block top. Due to the numerous amounts of floor uplift events, resulting mostly from slab plugging, biological fouling, and grout leakage, manufacturers are currently discontinuing the beaded slabs, reverting to slotted caps, and providing a significant amount of supplementary hardware to hold down the blocks.

In response to the prevalent floor failures, stainless steel triangular laterals have recently increased in usage. Though having a low hydraulic filtering profile, maldistribution of triangular lateral systems is significantly higher than that of block or nozzle-based monolithic floors. Undesired outcomes resulted in poor media agitation and cleaning, shorter filter runs, increased backwash rates and volumes, and a reduction in filter capacity. Adding the recent increased cost of stainless steel, the life cycle benefit of triangular lateral systems over that of block style is questionable.

To fully capture the treatment capabilities and long-term maintenance benefits of conventional filters, prudent municipal filter design must include consideration of suspended monolithic floors. This type of nozzle-based underdrain system eliminates gravel, has excellent filter and backwash distribution characteristics, and is structurally superior to lateral systems. At end-of-life cycle, in contrast to a complete lateral underdrain overhaul, nozzles are simply replaced as the monolithic floor remains part of the civil structure. One monolithic underdrain manufacturer, Orthos Liquid Systems, boasts 200 installed filters, some with over 20 years of operation, without a filter underdrain failure. Lateral systems manufacturers with significant experience can make no such claim. 

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Large Pump Design – Going Beyond the Curve!

Three Criteria to Consider When Selecting Large Drinking Water Pumps

By Jen Murphy, Water Division Manager, Parametrix

Pump systems are the heart of modern water treatment and distribution systems. To maximize the longevity, maintainability, efficiency, and safety of your system, consider NSF 61 Certification versus Compliance; variable frequency drives (VFDs); and protection from hostile temperatures, vibration, and adverse power conditions.

NSF 61 Municipal Water Products

NSF/ANSI 61 sets the requirement for materials used in the construction of drinking water equipment.

NSF 61 Compliance is the manufacturer self-certifying that their component meets NSF 61 criteria. There is no documentation requirement to claim NSF 61 Compliance and ongoing third-party inspection is not mandated.

NSF 61 Certification is a comprehensive route with a third-party validating compliance for requirements. The Certification is proof that the product is designed correctly and continues to be manufactured in compliance with NSF 61. For common system components, such as backflow preventers and valves, it is important that these products are certified.

NSF 61 Certification is for an entire assembly; therefore, it can limit the manufacturer's ability to meet the specifications. Additionally, because the Certification applies to all pump parts, you must use original equipment manufacturing parts, resulting in higher long-term maintenance costs.

For each application, the long- and short-term cost implications and risk of prohibiting specific manufacturers must be considered when making a decision.

Variable Frequency Drives (VFDs)

VFDs are used to achieve efficient operation over a range of flow and head conditions. While this starts with a provision of inverter duty-rated motors, in accordance with National Electrical Manufacturers Association Motor Generator Standard, additional features are required. This includes insulated bearing races and shaft and motor frame grounding devices to prevent bearing damage, when induced voltage in the motor shaft discharges through the bearings. Depending on the specific VFD operating conditions, voltage discharge can lead to premature bearing failure; therefore, the use of these devices can help save thousands of dollars in motor repairs or replacements.

Temperature, Vibration, and Power Protection

To minimize impacts from failures, the following motor protection features should be considered:

- **Temperature:** Most motors have thermostatic relays that provide precise temperature monitoring of both the upper and lower (or inner and outer) motor bearings, motor windings for each phase, and inner and outer pump bearings. With larger applications, the mechanical seal race and steady bearings along extended pump shafts are also monitored.
- **Vibration:** Adverse vibration is often a result of design deficiencies; therefore, lateral, torsional, and structural vibration analysis is performed during design. Vibration sensors can be used to provide critical alarms as the pump degrades over time. Real-time



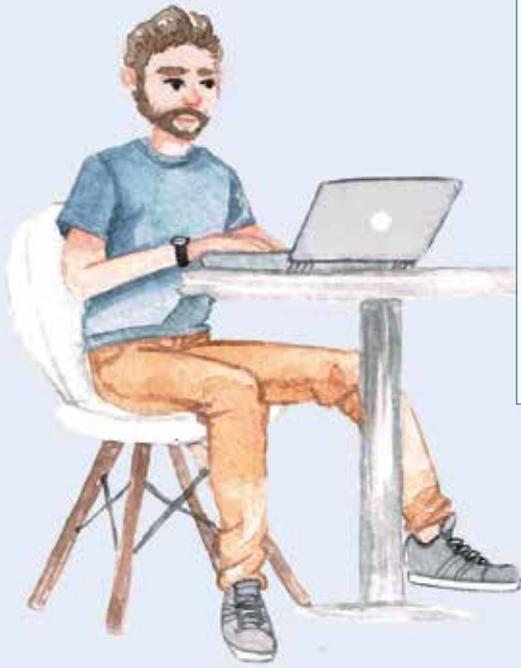
vibration monitoring is performed across a variety of frequencies and the sensors provide outputs for alarm, trip, and maximum amplitude to a central SCADA or DCS system.

- **Power:** Temperature sensors are integrated with motor management relays – monitoring the voltage, amperage, and power factor of incoming and outgoing power – to detect potential shorts/phase imbalances and protect the pump system. These relays correlate the RTD temperature measurements with the incoming power monitoring to avoid false alarms when swings in temperatures or incoming power are expected.

Pump system selection is a critical component of keeping your water system operational and efficient for years to come.

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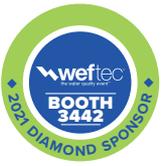
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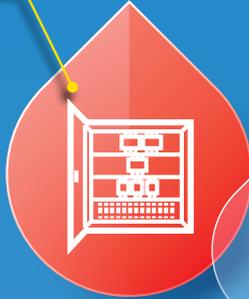
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