



March 1, 2022

Ms. Judy Grycko
OESAC CEU Committee
PO Box 577
Canby, OR 97013-0577

Re: OESACID: 4577 – CEU Application Update for Technical Program Content, Pacific Northwest Section – American Water Works Association (PNWS-AWWA) 2022 Annual Conference.

Dear Judy Grycko,

Enclosed for your review, evaluation and CEU credit approval are a few updates to the 2022 PNWS-AWWA Annual Conference, to be held in Tacoma, WA, April 27 – 29, 2022. These updates are due to speaker cancellations and replacement sessions. The updated content is highlighted in the abstracts attached for your convenience.

The conference will allow water and wastewater professionals the opportunity to enhance their job skills and knowledge. Information and education about topics including engineering, water quality, water resources, water treatment, water distribution, customer service, public information/education, water information technology, water system resilience, regulatory compliance, asset and data management as well as other utility management strategies will be presented during this virtual conference.

Enclosed materials include:

- Updated program schedule
- Updated abstracts only, which also include training goals and speaker information

Attendance at sessions during the conference will be tracked by reading bar codes on each attendee's name tag at the beginning of each session and after each hour of presentations. Registration materials and conference information can be accessed on-line <http://www.pnws-awwa.org/conference/>.

On behalf of the Pacific Northwest Section – American Water Works Association, thank you for your time and assistance regarding this request. Should you have any questions, please do not hesitate to contact me at my home office (541) 543-5774 or at jhoyenga@ci.the-dalles.or.us.

Respectfully, Jill Hoyenga
2022 PNWS-AWWA Program Committee Chair
Home office (541) 543-5774

Enclosures

Attendees from Idaho will receive a certificate with an Oregon accreditation number per the Idaho Administrative Code Bureau of Occupational Licenses IDAPA 24.05.01.500 i. **0.4 Approved Courses.** Those continuing education courses which are relevant and approved by the states of Nevada, Oregon, Montana, Utah, Wyoming, and Washington are deemed approved by the Board. (2-26-08)

2022 Conference Program Schedule

DRAFT - February 3, 2022

Wednesday, April 27									
Morning	Wednesday Morning Pre-Conference Seminars								
Room	315	316	317	318	404	405	406	407	
Hosting Committee	Distribution & Water Information Technology	Engineering & Distribution				Not Available		Not Available	
Preconference Seminar	Cybersecurity in the Water Industry	Fire & Ice: Supply Resilience (Part 1)							
Moderator		Taylor Stockton							
8:30	20 - Cybersecurity Tabletop Exercise - Ian Moore	45 - Wildfire and Winter Storm Risk Management Examples - Taylor Stockton							
9:00		127 - Lessons Learned from Wildfire Impacts on Distribution Systems - Rachel Lanigan, Jamie Porter, Mike McClenathan, Lacey Goeres-Priest							
9:30 - 9:45 Break									
9:45	20 - Cybersecurity Tabletop Exercise - Ian Moore (continued)	127 - Lessons Learned from Wildfire Impacts on Distribution Systems (cont)							
10:15		127 - Lessons Learned from Wildfire Impacts on Distribution Systems (cont)							
10:45 - 11:00 Break									
11:00	20 - Cybersecurity Tabletop Exercise - Ian Moore (continued)	60 - Total Blackout: Finding Power for the Lake Oswego-Tigard WTP During the Ice Storm of 2021 - Austin Peters, Bret Bienerth							
11:30		52 - Fire and Ice: Stories and Lessons from Wildfires and Ice Storms in Clackamas County - Scott Duren, Todd Heidgerken							

Afternoon	Wednesday Afternoon Pre-Conference Seminars								
Room	315	316	317	318	404	405	406	407	
Hosting Committee	Distribution & Water Information Technology	Engineering & Distribution				Not Available		Not Available	
Preconference Seminar	Cybersecurity Tabletop Exercise (Part 2)	Fire & Ice: Supply Resilience (Part 2)							
Moderator		Douglas Lane							
1:00	20 - Cybersecurity Tabletop Exercise - Ian Moore (continued)	74 - Analysis of Risk and Resilience Assessment (RRA) Utility Resilience Index (URI) Scores in the Pacific Northwest - Margarita Rodriguez, Venu Kandiah							
1:30		76 - Planning for Resilience in the Water Industry - Casey Hagerman							
2:00 - 2:15 Break									
2:15	20 - Cybersecurity Tabletop Exercise - Ian Moore (continued)	108 - Planning For and Managing Through a Chemical Shortage - Alex Chen							
2:45		81 - Chlorine Supply Resiliency - The Unexpected - Qianru Deng, Kimberly Gupta, Lyda Hakes, Tyler Kane, Andrew Nishihara, Celia Harvey							
3:15 - 3:30 Break									
3:30	20 - Cybersecurity Tabletop Exercise - Ian Moore (continued)	89 - Coordinated Chlorine Supply Shortage Response: Lessons Learned from PNW Utilities Discussion Panel - Jude Grounds, Libby Bakke, Kimberly Swan, Kimberly Gupta, Chris Wilson, Susie Smith							
4:00									

Thursday, April 28								
Morning	Thursday Early Bird Sessions							
Room	315	316	317	318	404	405	406	407
Hosting Committee	Distribution	Engineering	Customer Service					
Moderator	Dan Reisinger	Joelle Bennett	Cathy Middleton					
7:00	13 - What If Your Meters Could Hear What You Cannot See? - Martin Vaerum, Karen Siu	43- Delivering Capital Projects: A Young Professional's Guide to Construction Contract Administration - Spencer Adams	167 - Supporting the Customer Service Representative - James Dean					
7:30		75 - Working with Architects 101: Understand the Architectural Design Process and Get What You Want - Casey Hagerman, Kimberly Gupta, Lyda Hakes						
Morning	Thursday Morning Technical Sessions							
Room	315	316	317	318	404	405	406	407
Hosting Committee	Distribution	Engineering	Utility Management	Water Quality & Treatment	Research & Water Quality	Conservation	Wastewater	Distribution & Water Information Technology
Moderator	Dave Stanley	Nick Augustus	Brian Spindor	Kay Rottell	Emilia Blake	Dan Denning	Eric Schey	Brian Murphy
8:30	42 - Optimize Water Distribution Pipes and Water Loss With Digital Solutions (WRF 4917) - Michael Karl	46 - How to Start and Fund Asset Management Program From Scratch - Arnab Bhowmick, Bret Heath	106 - Surfing and Cresting (?) the Silver Tsunami - Alex Chen	67 - Developing an Algal Bloom Management and Response Plan - Nancy Feagin, Stephen Deem	24 - UVLEDs: From the Plant to the Pipe - Tara Randall, Breanna Real, Emma Wells, Karl Linden	143 - How City of Spokane is Making Water Efficiency as Routine as Recycling - Annikki Chamberlin	158 - Chlorine Residual Testing at Wastewater Facilities - Jeff Lundt, Darwin Phu	25 - Introduction to SCADA Cybersecurity - Lee Tumbleson
9:00	133 - Pipeline Asset Management: The Benefits to a Proactive Maintenance Approach - Audrey Leamy, Jeff Austin		36 - Development of a Drinking Water Internship Program (DRIP) - Chris Wilson, Jude Grounds, Kimberly Gupta, Derek Robbins	150 - Richland's Lessons Learned When Anatoxin-a Was Found in the Columbia River - Pat Everham	126 - The Impact of Bromide on Chlorine Decay and Disinfection Byproduct Formation - Kyle Shimabuku, Tarrah Henrie		149 - Virtual Factory Acceptance Test: Innovation Developed Through a Pandemic - Tina Hastings, Brian Shuck, Cameron Isaman, Jesse Collins	
9:30 - 9:45 Break								
9:45	4 - The Future of AMI Networks - Matt Zellers	103 - Elevating the City of Lacey's Water System with the Terry Cargil Reservoir - Maricris Orama, Puna Clark	23 - Condition Assessment Made Easy for O&M Personnel - John Koch	120 - Evaluating Options for Taste and Odor Problems (Umpqua Indian Utility Co-op) - Daniel Mosiman, Lee Odell	96 - Optimization of Distribution System Chlorine Residuals Through Chlorine Decay Tests and Hydraulic Modeling - Russell Porter, Keith Stewart, Eric Delfel	54 - Water Curtailment Planning and Outreach – Approaches in Oregon - Suzanne de Szoeko	138 - Why Coat Concrete Structures in Potable and Waste Water Systems - Jeff Austin	63 - Common AWIA Assessment Findings and How To Address Them - Bob George
10:15		113 - Not Just a Day at the Beach: Balancing Competing Priorities While Upgrading an Inlet Station - Sage Ebel	1 - Unleashing the Power of Technology for Effective Communication and Organization - Laura Oxsen	123 - City of Salem - Geren Island WTP Improvements Project Update - John Kenedy, Tim Sherman, Chris Johnson, Tyler Butler, Jude Grounds	101 - Evaluation of Pre-Oxidation and Secondary Disinfection Approaches on DBP Formation and Taste and Odor Using Simulated Distribution System Testing - Anna Vosa	16 - The Whole Conservation Picture: Tracking and Reporting Multiple Programs - Rochelle Gandour-Rood	159 - Biosolids on the Farm - A Virtual Tour - Jon Kercher	
10:45 - 11:00 Break								
11:00	134 - Advanced Metering Infrastructure (AMI) - Is It Now Within Reach for Small to Mid-Sized Utilities? - Andre Noel, Jeff Austin	94 - South Redmond Water Facilities: Using Alternative Delivery to Fast-Track Critical Infrastructure to Serve a New Pressure Zone - Dennis Galinato, Mike Caccavano, Brian Vinson	12 - The Value of Connection - Rebecca Geisen	124 - Salem's Cyanotoxin Response – A Success Story - Nicole Williams, John Kenedy, Chris Johnson, Jude Grounds	88 - Optimizing Corrosion Control Treatment for Low-Alkalinity Source Waters - Damon Roth, Steven Shiokari, Stephen Grooters, Niall Stewart, Laurie Sullivan	5 - How to Conserve Water With Electronic Control Valves and Active Pressure Management - Robert Velasquez, Steve Causseaux	156 - Listen Closely, Your Sewers Are Talking to You - Brogan Quist	62 - Surviving SCADA Ransomware Attacks - Bob George
11:30	14 - Tacoma Water's AMI Technology Roadmap, a 10-year Digital Journey Plan - Alex Puryear, Corey Bedient	31 - Couldn't Have Done it Any Other Way: Progressive Design-Build of an Urban Stormwater Pipeline - Patrick Weber, Christa Lee	22 - Engaging O&M Staff to Improve the Design of the Bull Run Filtration Facility - Willis Carr	141 - Creating a Crystal Ball: The Future of Harmful Algal Bloom Forecasting Using Artificial Intelligence - Alena Thurman, James Watson, Matt Titus	91 - Using Bench Scale Coupon Testing to Assess Lead Reduction Performance in Portland's Water Supply Across a Range of Coagulants and Corrosion Control Treatment Methods - Anna Vosa, Alex Mofidi, Melinda Friedman, Yone Akagi, Mac Gifford, Danbi Won			
12:00 - 1:30	Vendor Lunch / Division Meetings							

Afternoon	Thursday Afternoon Technical Sessions							
Room	315	316	317	318	404	405	406	407
Hosting Committee	Distribution	Engineering	Utility Management	Treatment	Research, Water Quality, Treatment	Water Resources	Wastewater	Distribution & Water Information Technology
Moderator	Don Lovas	Bill Reynolds	Andy Tuchscherer	Leanne Nguyen	Tess Young	Andrew Austreng	Eric Schey	Rachel Lanigan
1:30	27 - Pumps and Motor Condition, Optimization and Reliability Evaluation - Gregg Davidson	84 - ENVISIONING a Green Building Policy that LEEDs the Way - Holistic Sustainability for Infrastructure Facility Design - Wendy Macdonald, Christopher Bowker, Summer Gorder	30 - Facility Planning for More Than Capacity - Patrick Weber, Zachary Brown	110- Managing a Diverse, High-Performance Team for Portland’s Bull Run Filtration Project - Josh Miner, Lyda Hakes, Rachel McGinn, Nicki Pozos, Kyle Sandera	125 - Using UV and Fluorescence Spectroscopy to Monitor and Predict PFAS, MIB, and Emerging Contaminant Removal by Activated Carbon - Kyle Shimubuku, R. Scott Summers, Myat Thandar Aung, Natalia Soares-Quinete, Joshua Kearns	2 - Water Rights Mitigation Pilot Project - Challenge, Status, and Opportunity - Jason Van Gilder	154 - Benefits of Recycled Water - Chris Stoll	47 - New Tech Normal and Digital Revolution - Arnab Bhowmick, Bret Heath
2:00		79 - I Gotta Insulate What?! - Energy Code Compliance for Minimally Conditioned Buildings - Alan Armstrong		56 - Bull Run Filtration Project: 60% Design Update - Lyda Hakes, David Peters, Michelle Cheek, Mark Graham, Jude Grounds	34 - Collaborative Pilot-Scale Evaluation of GAC and IX Medias for Removal of PFAS from Groundwater - Adam Chang, Charles Powley, Jay Guyer	128 - Snoqualmie Pass Utility District – Water Right Portfolio Optimization - Tyson Carlson		
2:30 - 2:45 Break								
2:45	131 - Aging Water Storage Reservoir Evaluations: Where Do I Begin? - Greg Lewis, Nathan Rostad	119 - Balancing the Water Equity Equation - Andrew Nishihara	15 - Minimizing Apparent Losses: City of Bend’s Analytical Approach to Revenue Recovery - Christine Boyle	73 - What’s Next? Planning the Future of Clackamas River Water’s WTP - Ali Leeds, Adam Bjornstedt, Austin Peters, Connor Mancosky	83 - From Bench Test to Reality: Comparing Operations of Full-scale PFAS Treatment Facilities to Preliminary Bench Scale Test Results - Stephen Timko	87 - How Small Water Providers Are Using ASR to Help Manage Supplies - Ellen Svadlenak, Larry Eaton	157 - Cascadia WWTP Facility Virtual Video Tour - Jon Kercher, Chris Stoll, Laurie Pierce, Dennis Cosset	90 - How Lakewood Water District Uses ArcGIS and UtiliSync 811 to Manage Utility Locates - Matt Stayner, Kevin Wyckoff
3:15	135 - Tank Asset Management & Maintenance Programs: A Viable Alternative to Traditional Run-to-Fail Maintenance Procurement - Jeff Austin	104 - Sustainable Infrastructure - Advances in Concrete Construction - Matthew Perkins, Jordan Palmeri	35 - Fear, Uncertainty and Doubt with Cybersecurity - Nate Palmatier, Victor Perez-Bonilla	80 - Prioritization Matters – How Aging Infrastructure, Treatment Needs, and Site Layout Inform the Butterfield WTP’s Expansion - Brandon Dunagan, Ali Leeds, Britney Whitfield, Joe West	55 - How Ion Exchange (IX) Shoehorns PFAS treatment into a Tight Site - Esther Chang, Josh Kennedy	129 - Three for the Price of One - Using Aquifer Storage and Recovery to Reduce Peak Demands, Increase Storage, and Meet Emergency Backup Requirements - Randy Mueller, Brad Phelps, Mark Crowell		
3:45 - 4:00 Break								
4:00	136 - Role of Smart Tanks in Distribution Water Quality Management - Ethan Brooke, Jeff Austin	39 - InPipe Hydropower Generation - City of Hillsboro’s Story - Nesh Mucibabic, Tacy Steele	48 - The Show Must Go On: Business Continuity and Emergency Response - Arnab Bhowmick, Bret Heath	57 - Making the Most of Your WTP, Increasing Capacity and Reliability at the Medford Water Commission WTP - Joshua Kennedy	70 - PFAS vs Lead and Copper Rule Compliance - Beth Mende, Pierre Kwan, Tony Nguyen, Greg Keith, Bob York	33 - City of Othello Aquifer Storage and Recovery: Source Treatment and Program Implementation - Andrew Austreng	160 - PFAS and Biosolids - Current Issues and a Look Forward - Todd Williams	155 - Digital Twins - Eion Howlett
4:30	7 - Enhancing Supply Flexibility and Accommodating Storage Facility Maintenance through the Construction of a Critical Regional Supply Source - Chris Kelsey, Jordan Zier	18 - Permitting, Design, Technology and Construction of a Micro Hydropower Facility for the City of Beaverton - Adam Odell, Sheila Sahu		44 - Take it to the Limit – Hydraulic Testing at Maximum Instantaneous Plant Capacity - Spencer Adams	111 - Addressing Unforeseen Challenges with Spent Media Disposal: The City of Issaquah, WA Experience - Beth Mende, Pierre Kwan, Bob York, Greg Keith	21 - Condition Assessment of a 100-Year Old Well Station - Kenny Janssen, Joe Foote		11 - Real-time Software for Distribution System Operations: An Operator-Focused Design Approach - Marcelo Cusacovich, Justin Bowling, Samantha White, James Uber, Sam Hatchett, Srinivas Kulkarni

Friday, April 29								
Morning	Friday Early Bird Sessions							
Room	315	316	317	318	404	405	406	407
Hosting Committee	Distribution	Engineering						
Moderator	Bryan St.Clair	Greg Loscher						
7:00	10 - Pipe Thrust Restraint Buried - Doug Schlepp, Dan Kegley	29 - Hydraulic Control Valve Fundamentals - Steve Causseaux						
7:30	9 - Pipe Thrust Restraint Exposed - Daniel Kegley, Doug Schlepp							
Morning	Friday Morning Technical Sessions							
Room	315	316	317	318	404	405	406	407
Hosting Committee	Distribution	Engineering	Public Information	Water Quality & Treatment	Diversity and Inclusion	Water Resources	Cross Connection Control	Treatment
Moderator	Rachel Lanigan	Erika Murphy	Andrea Watson	Virpi Salo-Zieman	Tess Young	Jacob Krall	James Dean	Tyler Kane
8:30	8 - Clearing the Air on Air Valves: Air/Vac/Air Release Valves Design, Selection, and Sizing - Steve Causseaux	156 - Bonny Slope Park Reservoirs: From Inspection to Rehab in One Month - Nick Augustus	153 - What You and Your Community Need to Know About WIFIA - Kim Marshall, David Stangel	105 - Pilot Testing for Iron and Manganese Removal: Successes and Challenges for Two Water Districts - C. Aaron Gress, Lee Odell, Jay Breen	64 - Using Data to Drive Water Equity - Christine Boyle	40 - All in One: The Benefits of Integrating Comprehensive Long-term Water Supply, Treatment, and Distribution Planning - Connor Mancosky, Alena Thurman, Adam Steele	162 - Understanding the Costs When You Fail to Protect Drinking Water Resources - Terry Pickle	72 - Filtering the Options in Grants Pass - Ali Leeds, Jason Canady, Adam Smith, Steve Flett
9:00	3 - Hydraulic Control Valve Training - Mike Uthe	115 - Restoring Water System Confidence with CIPP - Brendan O'Sullivan, Michael Linn	161 - Modernizing the Cross Connection Control Program Reporting, Compliance, and Communications to Meet 21st Century Needs - Joel Cary, Kahlll Howell	38 - Process Control and Treatment Optimization for Groundwater with Elevated Ammonia and Manganese - Alex Mofidi, Karen Heneghan, Michael Hallett, Andrew Hill, Al Vetrovs, Stephen Booth, Brant Wood	71 - A Utility Starts Its Equity Journey - Lee Lindsey, Tacy Steele, Nicki Pozos	41 - You Cannot Conserve Your Way Out of Infrastructure Improvements - Michelle Johnson, Brandon Rose	164 - Using Community-Based Social Marketing to Promote Cross Connection Control Compliance - Jessica Shaw	
9:30 - 9:45 Break								
9:45	85 - Leveraging a Hydraulic Model Across An Entire Organization - Daniel Reisinger, LaDonne Harris	37 - It's Not About What's on the Outside, It's What's on the Inside that Counts! A Story of Pipeline Rehabilitation - Ryan Smith, Nicholas Augustus	148 - Water Workforce Development Through the Education Pipeline - Tacy Steele, Kristi Wilson, Chris Wilson	78 - Implementation of Taste & Odor Improvements at Scotts Valley - Milt Larsen	59 - Maximizing Water Management Dollars While Bringing Transparency, Equity and Multiple Benefits - Morgan Shimabuku, Sarah Diringier	92 - An Experimental Technique for Protecting Wells Without Pump Systems - Andrew Wentworth, Larry Eaton	163 - Backflow Incident Response: Dana Street Irrigation Cross Connection - Jessica Shaw	102 - Restoring Filtration Performance at the Deer Creek WTP - Pierre Kwan, Scott Dunn, Jay Prosser
10:15	117 - Using Hydraulic Modeling to Support Storage Evaluation and Operational Changes - Aurelie Nabonnand, Adib Altallal, Natalie Reilly	82 - Replacing the South Fork Tolt River Project Low Level Outlet Regulating Valve - Ulysses Hillard, Val Kovalishyn		69 - Converting an Unchlorinated System to Full Chlorination / Arsenic / Manganese Treatment - Beth Mende, Pierre Kwan, Greg Rae	53 - Integrating Social Equity Into the Bull Run Treatment Projects - Nicki Pozos, Lyda Hakes	99 - Keep the Water Flowing: Staying Ahead of the Water Demand Curve in a Multi-Source System - Joe Foote, Nathan Black, Heather Pina	165 - Increasing the Protection of the Water System and Finding Money, Political Support & Understanding Where There May Not Be Any - Loren Searl	97 - City of Sultan Water Treatment Plant: Improvements to Expand Capacity and Enhance Plant and System Safety, Reliability and Resiliency For a 2-MGD Treatment System - Kristy Warren, Nate Morgan, Jefferson Moss
10:45 - 11:00 Break								
11:00	61 - Putting Tools in One Place: How Lakewood Water District Integrates Field Data Systems - Kevin Wyckoff	121 - Whack-A-Mole: Waterproofing a 100-Year-Old Clear Well - Matt Hickey, Lori Schumacher, Kiera Usagawa	152 - Communications Awards - Kim Marshall, Andrea Watson	146 - Manganese Management in Distribution Systems - Andrew Hill	155 - Walking a Mile in Our Communities' Shoes - Nicki Pozos	139 - Seeing Purple: Final Design of the City of Beaverton's Non-potable Water System for Municipal Irrigation - Ronan Igloria, Priya Dhanapal, David Winship, Jason Melady, Alex Bargmeyer	166 - Communication During a Backflow Incident - Customers, the Media and the Utility - Scott Hallenberg	116 - Pilot Testing Membrane Filtration to Treat Surface Water for Aquifer Storage and Recovery (ASR) - Brian Rowbotham, Lee Odell
11:30	50 - Calibrating Distribution System Models – From the Field to the Desktop - Zach Schrempp	114 - Replacement of 110,000 gpm of Pumping: Designed Solutions and Lessons Learned - Pat Van Duser, Liz Edgar, Cameron Isaman		28 - Investigating Manganese Accumulation, Release, and Mitigation in Tacoma Water's Large Diameter Transmission Mains - Melinda Friedman, Kim DeFolo, Virpi Salo-Zieman, Chris McMeen, Ali Leeds	147 - King County Wastewater Treatment DEI Efforts - Robert Tovar	151 - Groundwater Source Development for Rockwood Water People's Utility District and the City of Gresham - Kari Duncan		68 - Anacortes WTP Optimization with Advanced Analytics - Isaac Brunk, Jamie Lefkowitz
12:00 - 1:30	Awards Lunch							

Afternoon	Friday Afternoon Technical Sessions							
Room	315	316	317	318	404	405	406	407
Hosting Committee		Engineering		Board of Trustees				Treatment & Research
Moderator		Taylor Stockton						Larry McCollum
1:30		65 - Practical Applications for Transient Ground Shaking in the Design of Earthquake Resistant Welded Steel and Ductile Iron Pipelines - Mike Britch		set up for Meeting				140 - Pilot Operations: Foundations, Adaptation During On-Site Operations, and Lessons Learned - Mia Vijanderan, Lynn Williams Stephens, Mac Gifford, Thomas Krause, Rick Norris, Damon Roth
2:00		66 - Seismic Design Quality Control Practice to Improve Overall Seismic Performance of Large Water Transmission System Pipelines and Facilities - Mike Britch						100 - Bull Run Water: Investigating Coagulation, Flocculation and Sedimentation at Pilot Scale - Mojtaba Azadiaghdam, Humberto Piedra-Ruiz, Mac Gifford, Anna Vosa, Melanie Roy, Thomas Krause
2:30 - 2:45 Break								
2:45		95 - Seismic Resilience Without Breaking the Bank - Matthew Perkins, Bryan Robinson		Board of Trustees Meeting				93 - Bull Run Treatment Program (B RTP) - Headloss Characterization and Performance of Three Different Dual Media Filter Configurations - Humberto Piedra-Ruiz, Mac Gifford, Anna Vosa, Mojtaba Azadiaghdam, Thomas Krause, Melanie Roy
3:15		118 - Optimizing Use of FEMA Funding – Gresham Grant Butte 10 MG Seismic Upgrades - Matt Hickey, Chris Young, Jason Branstetter, Wendy Andaya						122 - Pushing Rapid Gravity Filtration Rates into the 21st Century – Demonstrated Performance at 16 gpm/sf - Katerina Messologitis, Mike Nacrelli
3:45 - 4:00 Break								
4:00		98 - Streamlined Pipeline Seismic Design - Geotechnical and Pipeline Modeling for An Essential Pipeline Project - Wolfe Lang, Geoff Bee		Board of Trustees Meeting				112 - Advancing Beyond Excel: Applying the R Software Environment for Water Quality Data Analysis - Karina Woodland, Damon Roth, Mia Vijanderan
4:30		49 - Where's the Backbone? Installing New Watermains to Create a Seismically Resilient Backbone Through Distribution Systems - Andrew Barrett						77 - What to Do With All This Data? Automated Analysis and Reporting of Data from Two WTP Pilot Tests - Enoch Nicholson



2022 Annual Conference, Tacoma, WA April 27 – 29

Greater Tacoma Convention Center 1500 Commerce St., Tacoma, WA 98402

Session ID: UMTPM02

Date: 4/28/2022

Length of Session: 30 minutes

Area of Relevancy: Drinking Water

New speaker only

Presentation Title: Minimizing Apparent Losses: City of Bend's Analytical Approach to Revenue Recovery Through Prioritized Meter Testing and Replacement

Abstract: In this presentation, the speaker will discuss how the City of Bend applied a near real-time apparent loss software tool that uses a "bottoms up" method to identify meters that are under performing due to degradation, not linked to weather or conservation trends. This technology allowed the City to prioritize their meter replacement program based on revenue lost/meter/month, optimizing their limited operational resources to recover maximum revenue. Participants in this session will learn how to detect apparent losses and adopt new forms of reducing apparent loss that complement the AWWA standards on Apparent Losses and Water Loss Reduction Planning. Results of this tool and programmatic approach to apparent loss resolution are being embraced as a better practice, producing energy savings, and top-line revenue delivered to water utilities.

CEU Relevance Statement: This presentation will help utility management leaders understand how to identify, pilot, and implement new technologies in the marketplace. The ease of implementation and roll out will be discussed as well as field work and testing needs that are required to produce the revenue savings.

Author: Christine Boyle

Author's Job Title: Vice President of Digital Product

Email: christine.boyle@xylem.com

Development Phone: 541-408-5520

Organization: Xylem, Inc.

Primary Job Duties: Dr. Christine Boyle is the Vice President of Digital Product Development at Xylem, Inc. She works with entrepreneurs and innovators to bring the next generation of water technologies to market. She received a doctorate in water resource planning in 2011 and "spun" a water analytics company, Valor Water, out of her thesis work at University of North Carolina at Chapel Hill. Dr. Boyle is also vice chair of the Cal-Nevada American Water Works Association, an advisor to Burnt Island Ventures, and a trustee of the American Water Works Association Management and Leadership Division.

Related Prior Employment:

Registrations or Certifications: Doctorate in Water Resource Planning



2022 Annual Conference, Tacoma, WA April 27 – 29

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Session ID: EngFAM01

Date: 4/29/2022

Length of Session: 30 minutes

Area of Relevancy: Drinking Water **Replacement Presentation**

Presentation Title: Bonny Slope Park Reservoirs: From Inspection to Rehab in One Month

Abstract: Tualatin Valley Water District regularly maintains and inspects reservoirs within its system. The Bonny Slope Park Reservoirs, each 1.5 million gallons, are fully buried and located beneath soccer fields and thus are in need of additional inspections. The District planned an inspection to evaluate the structural integrity. Due to the cost of draining the reservoirs, re-chlorinating, and placing back into service following a full clean and inspection, it was determined that the interior piping and concrete should be rehabilitated immediately. This presentation will discuss the work performed, including the inspection work that led to the decision to perform rehabilitation work at this time.

CEU Relevance Statement: This presentation will help operators and engineers through an example of how a reservoir inspection could result in repairs. It will discuss challenges and how those challenges were overcome.

Author: Nick Augustus

Author's Job Title: Engineering Division Manager

Email: nick.augustus@tvwd.org **Phone:** (971) 327-6292

Organization: Tualatin Valley Water District

Primary Job Duties: Manages the engineering division which is responsible for capital improvements, development services, and project management of facility improvements.

Related Prior Employment:

Registrations or Certifications: Licensed PE in the State of Oregon.



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Greater Tacoma Convention Center 1500 Commerce St., Tacoma, WA 98402

Session ID: DivFAM05

Date: 4/29/2022

Length of Session: 30 minutes

Area of Relevancy: Both

Presentation Title: Walking a Mile in Our Communities' Shoes **Replacement Presentation**

Abstract: Drinking water professionals often struggle to translate equity principles into their everyday work. At the heart of this struggle is a lack of understanding—how does our work interact with the life conditions of the communities we serve? This interactive session will explore three scenarios relevant to utilities: loss of service, trust in drinking water, and construction impacts. Attendees will explore how socio-economic resilience, disenfranchisement, and transportation access affect our lived experience.

CEU Relevance Statement: Understanding customers is critical for both engineers and operators if emergency response actions are to facilitate public trust. Failures in communication lead to misunderstandings and less effective responses. This presentation shows ways of going beyond technical options to leveraging public relations within a utility. Case studies will explore the lived experiences of utility customers and served communities.

Author: Nicki Pozos

Author's Job Title: Principal

Email: nicki@theformationlab.com

Phone: 503-481-8611

Organization: The Formation Lab

Primary Job Duties: Dr. Pozos is an engineering consultant focused on integrating social equity into the planning, design and management of water infrastructure projects. Her current consulting projects include the City of Tualatin Water Supply Strategy, Portland Water Bureau's Bull Run Treatment Projects, the Regional Disaster Planning Organization Emergency Water Plan, and the Portland Bureau of Environmental Services Secondary Treatment Expansion Project.

Related Prior Employment: Dr. Pozos bring almost 20 years of experience including water master planning, water supply planning, economic evaluation, decision management, strategic communications and social equity. Prior to The Formation Lab, Nicki held positions with Barney & Worth, HDR, and Carollo.

Registrations or Certifications: Professional Engineer, Oregon and California