

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 - April 25, 2022

Wednesday, April 27									
Wednesday Morning Pre-Conference Seminars									
Morning	Room	315/316	317	318	404	405	406	407	
Hosting Committee		Engineering & Distribution		Distribution & Water Information Technology		Not Available		Not Available	
Preconference Seminar		Fire & Ice: Supply Resilience (Part 1)		Cybersecurity in the Water Industry					
Moderator		Taylor Stockton							
8:30		45 - Wildfire and Winter Storm Risk Management Examples - Taylor Stockton		20 - Cybersecurity Tabletop Exercise - Ian Moore					
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		127 - Lessons Learned from Wildfire Impacts on Distribution Systems (cont)		20 - Cybersecurity Tabletop Exercise - Ian Moore (continued)					
10:15		127 - Lessons Learned from Wildfire Impacts on Distribution Systems (cont)							
10:45 - 11:00 Break									
11:00		60 - Total Blackout: Finding Power for the Lake Oswego-Tigard WTP During the Ice Storm of 2021 - Austin Peters, Bret Bienert		20 - Cybersecurity Tabletop Exercise - Ian Moore (continued)					
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		Engineering & Distribution		Distribution & Water Information Technology		Not Available		Not Available		
Preconference Seminar		Fire & Ice: Supply Resilience (Part 2)		Cybersecurity Tabletop Exercise (Part 2)						
Moderator		Douglas Lane								
1:00		74 - Analysis of Risk and Resilience Assessment (RRA) Utility Resilience Index (URI) Scores in the Pacific Northwest - Margarita Rodriguez, Venu Kandiah		20 - Cybersecurity Tabletop Exercise - Ian Moore (continued)						
1:30		76 - Planning for Resilience in the Water Industry - Casey Hagerman								
2:00 - 2:15 Break										
2:15		108 - Planning For and Managing Through a Chemical Shortage - Alex Chen		20 - Cybersecurity Tabletop Exercise - Ian Moore (continued)						
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										
4:00		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		20 - Cybersecurity Tabletop Exercise - Ian Moore (continued)						

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 - Seattle's Turbines - No Electricity Needed - Cheryl Capron		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 Cargill 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 - Adam Sussman	138 - Extending the Useful Life of Your Existing Concrete Tank Infrastructure - Nick Belmont	63 - Common AWIA Assessment Findings and How To Address Them - David Espy
10:15		113 - Not Just a Day at the Beach: Balancing Competing Priorities While Upgrading an Inlet Station - Sage Ebel, Nathan Rostad	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	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 Groeters, 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 - David Espy
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, Mat 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								

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	Scott Ruyle	Bill Reynolds	Andy Tuchscherer	Leanne Nguyen	Lynn Stephens	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 - Douglas Beagle, Joe Becker	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 Redding, Eli Townsend, Leila Munla			
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 - 2 valves down, 2000 services out - Cheryl Capron	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) Shoeorns 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 - Greg Brazeau, 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, Kahill 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 Schrempf	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		Board of Trustees			Engineering			Treatment & Research
Moderator				Taylor Stockton				Larry McCollum
1:30		set up for Meeting		65 - Practical Applications for Transient Ground Shaking in the Design of Earthquake Resistant Welded Steel and Ductile Iron Pipelines - Mike Britch				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		Board of Trustees Meeting		95 - Seismic Resilience Without Breaking the Bank - Matthew Perkins, Bryan Robinson				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			
3:45 - 4:00 Break								
4:00		Board of Trustees Meeting		98 - Streamlined Pipeline Seismic Design - Geotechnical and Pipeline Modeling for An Essential Pipeline Project - Wolfe Lang, Geoff Bee				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			