



WEF/AWWA
The Utility Management Conference 2024
February 13-16, 2024
Portland, Oregon, USA
www.wef.org/utilitymanagement
#UMC24

Pre-Conference Workshops: February 13
Conference: February 14-16

Technical Program
(last updated November 13, 2023)

This conference is jointly hosted by the Water Environment Federation and American Water Works Association with cooperation from the Pacific Northwest Clean Water Association.

Pre-conference Workshops

Additional fees apply

Workshop A: From Disrepair to Prepared (from reactive to proactive): Leveraging the Fundamentals of Maintenance Reliability for Effective Operations and Sustainable Utility Management

Tuesday, February 13, 2024

8:30 a.m. - 5:00 p.m.

Speakers: Pam ELardo, Steven Hutchings, Brown and Caldwell; Adam Comfort, King County Dept of Natural Resources and Parks; Peter Boone, Tualatin Valley Water District; Christa Overby, City of Portland Bureau of Environmental Service; Reginal Joseph, Anthony Campanella, NYC DEP; Mark Poling, Clean Water Services

Maintenance Reliability programs and Reliability Centered Maintenance (RCM) practices provide approaches to serve the public as utilities address aging infrastructure, knowledge retention, financial constraints, regulatory requirements, performance needs, security, and more. This workshop will provide interactive learning and insights to Maintenance Reliability through theory, practice, examples, and use of data and technology. It will provide in-depth understanding of requirements necessary to increase reliability by utilizing failure modes, consequences, and improved maintenance strategies. While Maintenance Reliability can significantly decrease maintenance and operating costs and lower risks of equipment failures, the human elements need to be understood for sustained success. The workshop will explore change management, consistent communication, and cultural components as essential for implementation.

Pre-conference Workshops

Additional fees apply

Workshop B: Commissioning Capital Projects as a Life Cycle Process

Tuesday, February 13, 2024

8:30 a.m. - 5:00 p.m.

Speakers: Salil Kharkar, DC Water; Stacy Passaro, Passaro Engineering; Theresa Bruton, DC Water; Diala Dandach, Brown and Caldwell; David Parker, DC Water; Robert Fairweather, Sherwood, Logan and Associates; Jaime Alba, DC Water; Charles Sinclair, Garney Construction, Christine deBarbadillo, Black and Veatch

Most utilities consider commissioning to be the tail end of a construction project to confirm that the built project meets specifications. There is also a perception that project delivery methods impact commissioning. This workshop will show that the commissioning challenges are agnostic of selected project delivery method and so are the approaches to overcome these challenges. This workshop will also highlight that the activities leading to successful commissioning start early in the decision phase, goes beyond construction, and is focused on the goal of ensuring that the constructed assets last and meet the design intent through its intended life span.

Pre-conference Workshops

Additional fees apply

Workshop C: Resilience Continuum for Assessing and Improving a Utility's Resilience Positioning

Tuesday, February 13, 2024

8:30 a.m. - 12:00 p.m.

Speakers: Jason Carter, Arcadis; Prabha Kumar, Black and Veatch; Joone Lopez; Matthew Griffith, Louisville Water Company; Marissa Huntley Sammamish Plateau Water

Enterprise resiliency has long been recognized as a core attribute of effectively managed utilities. Recent unprecedented challenges have forced utilities to adapt fundamental business practices and policies rapidly in order to deliver services. In 2021, a team from AWWA's Strategic Management Practices Committee (SMPC) published an article on utility resilience based on their evaluation of AWWA's pandemic survey data and a focus group discussion held with three utility leaders. This led SMPC authors to define the concept of a "Resilience Continuum". This workshop will build on this concept and resilience self-assessment to examine three focus areas with participants - Workforce Adaptation, Customer Engagement, and Digital Enablement.

Workshop D: Operationalizing Equity, Environmental Justice, and Resilience in your Utility with Advanced Asset Management

Tuesday, February 13, 2024

8:30 a.m. - 12:00 p.m.

Speakers: Hugh Sinclair, Arcadis; Satish Tripathi, City of Houston; Alan Sauvageau, WSSC Water

Water equity and environmental justice are now shifting from aspirational goals to required strategic objectives for many utilities. At the same time, the traditional problem of aging infrastructure is compounded by need for higher system resilience to combat the climate effects. To navigate these new challenges utilities are employing emerging best practices and technology to inform optimized asset management strategies. In this workshop participants will learn best practices of how to incorporate equity and environmental justice into its infrastructure prioritization and level of service performance while also exploring strategies to increase asset resilience to climate effects.

Pre-conference Workshops

Additional fees apply

Workshop E: Wateropolis - A Facilitated Workshop for Values-Based Resource Prioritization

Tuesday, February 13, 2024

1:30 p.m. - 5:00 p.m.

Speakers: Catherine Carter, Jennifer Teal, Raftelis; Jim Horne, US EPA; James Ginley, Jim Ginley Consulting, LLC

Wateropolis is an interactive board game designed to provide utility organizations with a new tool to engage internal and external stakeholders, help enhance community understanding and support, and demonstrate the value of water. This facilitated workshop leverages the industry's updated Effective Utility Management initiative and leads participants through the myriad of emerging issues and choices that confront local utility service providers, using Wateropolis, a highly-interactive experience that is modeled closely on the very successful North Carolina School of Government's "Budgetopolis" game.

Workshop F: Using Gap Assessments to Advance Your Asset Management Program Maturity

Tuesday, February 13, 2024

1:30 p.m. - 5:00 p.m.

Speakers: Tammy Whipple, AMCL, Mert Muftugil; Rebecca Borker. WSP Parsons Brinkerhoff; Todd Shepherd

This workshop is designed for utilities seeking to advance in their asset management maturity. It will provide an overview of asset management maturity assessment tools and uses, feature speakers from two utilities who will share real-world examples of evaluating their asset management program maturity and utilizing the assessment to develop actionable strategies to advance. An asset management self-assessment and tabletop exercises will be utilized throughout the workshop to provide attendees with practical, ready-to-use ideas and practices they can take back to their organization to advance their asset management practices and outcomes from any state of maturity.

Session 01: Building Resilient and Sustainable Water Infrastructure in Jackson, MS - Insights from the Project Team

Wednesday, February 14, 2024

10:30 a.m. - 12:00 p.m.

Speakers: Ameerah Palacios, Brent Tippey, HDR; Edward Henifin, JXN Water

You've seen the headlines, now hear from the project team of JXN Water, Ted Henifin, interim third-party manager will speak on lessons learned and introduce key parts of his project team from Jacobs, Stantec, and HDR to speak on the progress of the system in its recovery. This panel will explore the critical intersection of resiliency and sustainability in water infrastructure development and management. Through a multi-disciplinary lens, the panelists will provide valuable insights and practical approaches for the AEC industry to understand the challenges in Jackson, MS. The 'Building Resilient and Sustainable Water Infrastructure' panel is designed to provide a comprehensive and actionable overview of the crucial issues surrounding water infrastructure today. It brings together experts from the JXN Water project team to share their knowledge, experiences, and best practices. Attendees will leave with a deeper understanding of the complexities of water infrastructure, as well as practical tools and strategies to address the challenges of an ever-changing world.

Session 02: Utility Collaboration & Regionalization A
Wednesday, February 14, 2024
10:30 a.m. - 12:00 p.m.

10:30 a.m. From Burden to Benefit, ALCOSAN's Regionalization Program Then and Now
Kaye Bealer, AECOM; Julia Spicher, Alcosan

11:00 a.m. Doubled Overnight: Consolidating Seven Utilities into One
Jack Beers, CDM Smith; Jacob Tittle, Metropolitan Sewer Sub District

11:30 a.m. When Less is More: A Wastewater Treatment Consolidation Case Study
Kendall Ryan, Bailey Keller, David Munn, Freese and Nichols; Jared Barber; Lindsey Reid, Freese and Nichols; Richard Weatherly; Jameson Appel, City of Pearland

Alternate Creation and Implementation of the Best Practices Guide for Quality Plan Submittals in Nevada
Ernie Buo, Leslie Long, Clark County Water Reclamation District

Alternate Regionalization – The Role of Finances in Successful Solutions
Ryan Graf, Miranda Kleven, Advanced Engineering and Environmental Services Inc

Session 03: Strategic Planning A
Wednesday, February 14, 2024
10:30 a.m. - 12:00 p.m.

- 10:30 a.m. Preparing for All Potential Outcomes: How HRSD Used Innovative Scenario Planning to Future-Proof its Organizational Strategic Plan**
Jay Bernas, HRSD; Ryan Nagel, Sarah Dominick, Shelbie Dashiell, Hazen and Sawyer
- 11:00 a.m. Future of Water and Wastewater Infrastructure and Policy in Sugar Land – A Story of Collaboration between Planning and Engineering**
Ishita Rahman, Freese & Nichols Inc.; Katie Clayton, City of Sugar Land; Kendall Ryan, Alexis Garcia, Freese & Nichols Inc.
- 11:30 a.m. Strategic Planning and Execution of a Unified SCADA System for Water Utility Management**
Leo Rodgers, Brown and Caldwell; Devin Sanders, Portland Water Bureau
- Alternate Setting Expectations: Providing Flexible Project Guidance to Align the Management of Projects Across an Organization**
Sree Kolapalli, Loudoun Water; Michael Dalton, Hazen and Sawyer; Thomas Lipinski, Loudoun Water; Ryan Nagel, Conor Brennan, Hazen and Sawyer
- Alternate Strategic Plan, SMART Goals and Employee Investment: A Recipe for Success**
Nicole Bates, Allan Clum, Christi Fowler, Mount Pleasant Waterworks

Session 04: Understanding the "Why" Behind Utility Technology Transformations: The Behind the Scenes View of What Drives the Need for Change

Wednesday, February 14, 2024

10:30 a.m. - 12:00 p.m.

Speakers: Seth Johnstone, 1898 & Co.; Lee Haller, Matthew Jacob, Pittsburgh Water & Sewer Authority; Cassidy Harding, California Water Service; Michael Beardslee, Craig Lees, Loudon Water

This session will include presentations from three leading utilities on 'why' they undertook a strategic technology initiative at their organization. The focus of these presentations will be on the organizational drivers that made the project necessary, what approaches were used to build buy-in to taking on the project, and lessons learned leading up to the actual procurement and deployment of the technology initiative. Following the presentations, there will be a moderated panel discussion providing the audience a chance to ask the utility leaders additional questions about each of these initiatives and the utilities overarching strategies around technology use.

Session 05: Workforce Development: A Focus on Operators

Wednesday, February 14, 2024

1:30 p.m. - 3:00 p.m.

- 1:30 p.m. Wastewater Operator Apprenticeship Program**
Tim Runde, City of Des Moines Metro WRA-WRF
- 2:00 p.m. Attracting Operators to the Field**
Olga Mikhalchishina, Bradley Hayes, Woodard and Curran
- 2:30 p.m. Analyzing Operators' Jobs: A data driven approach to certifying operators and how it impacts the future of the water industry**
Paul Bishop, Water Professionals International (WPI); Alan Cranford; Mike Gosselin, City of Kelowna
- Alternate Stay Interviews: A Mechanism for Improving Employee Retention**
Kacie Allard, South Platte Water Renewal Partners
- Alternate Purpose Driven Work: Utilizing the motivation behind the new workforce to build a successful internship program**
Zeena Williss Kohr, Anna Schroeder, South Platte Renew

Session 06: Asset Management and Capital Program Frameworks

Wednesday, February 14, 2024

1:30 p.m. - 3:00 p.m.

- 1:30 p.m.** **Charlotte Water's Systematic and Comprehensive Sewer Maintenance and Rehabilitation Program Leads to a 75% Reduction in SSOs over the last 15 Years**
Aaron Frazier, CHA Consulting, Inc.; Jason Bromirski, Charlotte Water
- 2:00 p.m.** **So, You Think You Can Inspect? The Saga of City-Wide Inspections in the Nation's Capital**
Kaylin Kramer, Brown and Caldwell; Tatiana Baranova; Jessica Shiao, DC Water
- 2:30 p.m.** **Evansville Water and Sewer Utility's Roadmap to Asset Management Excellence**
Sara Ferrara, Arcadis; Logan Guffey, Evansville Water and Sewer Authority
- Alternate** **Raise Your Standards: The Value of ISO 55000 in the Water & Wastewater Industry**
John Helwig, CDM Smith; Tacoma Zach, MentorAPM; Jim Dieter, aim4ams
- Alternate** **Rapid Population Growth Drives Evolutionary Changes to Large Scale Multi-Billion Dollar Water/Wastewater Capital Improvement Program**
Tom Davies, Kelly Davis, Trinity River Authority

**Session 07: Times They are a Changing: How to Bob and Weave for Dylan' with
Change Management**

Wednesday, February 14, 2024

1:30 p.m. - 3:00 p.m.

Speakers: Heather Wootton, Kimley-Horn and Associates, Inc.; John Bennett, Trinity River Authority of Texas; Theresa Bruton, DC Water; Scott Schladweiler, Tanya Miro, Kimley-Horn and Associates, Inc.

Utilities are a constant in our industry. Our organizations are essential to providing safe drinking water to our communities and are critical to public health. It is fitting that we are in the water industry because whether we like it or not things are constantly changing. As water erodes and shapes, our policies and ever-changing environment continues to shape how our utilities operate and change how things flow. Whether it's upcoming or new regulations, staffing shortages, or operating procedures, these all affect how our utilities operate and adapt to the times. This panel will address three main topics from planning for, managing, and tracking progress related to change. We will hear stories from three large utilities across the nation on how they have planned for, received, and adapted to change across their organizations. To close out this session we will provide a tabletop exercise to break out groups and have group discussion on how they would approach the specific challenge presented. Attendees will walk away with an understanding of change management principles and a real-life view on how that has been experienced, tracked, and implemented at utilities across the nation.

Session 08: Digital Transformation in the Water Sector
Wednesday, February 14, 2024
1:30 p.m. - 3:00 p.m.

- 1:30 p.m.** **From a Ripple to a Wave: Global Best Practices for Digital Water Transformation**
Eric Bindler, Bluefield Research; Shawn Ingram, Xylem
- 2:00 p.m.** **Preparing for and Implementing Process Optimization Using Advanced Data Visualization**
Kelly Kimball, Brown and Caldwell; Erin Mackey; Kimberly Gupta, Portland Water Bureau
- 2:30 p.m.** **A Decade of Domain Expert-Led Digital Transformation in Houston Water: The Integration of ChatGPT and AI Technologies**
Fazle Rabbi, Pratistha Pradhan, City of Houston
- Alternate** **Getting Comfortable Being Uncomfortable: The MMSD Digital Transformation Journey**
Alan Tucker, Brown and Caldwell; Matt Magruder, Michael Martin, Milwaukee Metropolitan Sewerage District

Session 09: Workforce Development: Managing this Crucial Asset
Wednesday, February 14, 2024
3:30 p.m. - 5:00 p.m.

- 3:30 p.m.** **One Plus One Equals A Common Goal: Discussions and Perspectives on Workforce Development From Two Sides of the Workforce**
Kathleen Mannion, Carollo Engineers; Molly Nause-McCord, City of Portland, Bureau of Environmental Services
- 4:00 p.m.** **Tapping the Talent Pipeline: Developing the Next Generation of Leaders in Your Organization**
Jennifer Teal, Raftelis; Zach McNutt, Kacey Waggaman, City of Monroe; Chrissy Roe, Louisville Water
- 4:30 p.m.** **Utility Leadership - Career Progressions for Recruitment & Retention**
Jose Leon Jr, Raul Romero, Johnson County Wastewater
- Alternate** **Preparing the Future Water Workforce**
Stephen Brown, Town of Cary; Tasneem Hussam
- Alternate** **Deep Diving into the Water Sector Workforce – Round Two!**
Joanna Brunner, Arcadis; Zakiya Seymour; Kristan VandenHeuvel, The Water Tower; Joanna Brunner, Trisha Brown, Jayden Wright, Arcadis; Melissa Meeker, Gwinnett County - Department of Water Resources

Session 10: Best Practices for Capital Program and Asset Management
Wednesday, February 14, 2024
3:30 p.m. - 5:00 p.m.

- 3:30 p.m. Developing a Strategic Asset Management Plan (SAMP) for South Platte Renew**
Shannon Harney, Angela Hager, South Platte Renew; Steve Simon, Hazen and Sawyer
- 4:00 p.m. Using Digital Technologies in Capital Planning: Parker Water & Sanitation District's Water Supply Capital Planning process**
Andrew Goldberg, Brown and Caldwell; Emilie Abbott, Parker Water and Sanitation District
- 4:30 p.m. Making the Right Choices for Your Utility: Using Augmented Alternatives Analysis (AAA) to Plan for Large Capital Investments**
J Leslie Corcelli, US Environmental Protection Agency; Andrew Kricun
- Alternate Checking Boxes and Moving the Needle – Incrementally Advancing Asset Management Program Value for Utilities**
Alden Wyma, Donna Lund, Todd Smith, Adam Comfort, King County Dept of Natural Resources and Parks; Steven Rogowski, Metro Wastewater Reclamation District; Rachel King, Michael Flores, HDR
- Alternate Equitable Investments: DC Water's Experience Diving Deeper from an Analysis of Spending per Neighborhood to a Rigorous Approach to Enhancing Intergenerational Equitable Outcomes and Customer Experiences**
Jennifer Belknap, Carollo Engineers; Getachew Melsew, DC Water

Session 11: Financial Resilience for Utilities and Customers Alike
Wednesday, February 14, 2024
3:30 p.m. - 5:00 p.m.

- 3:30 p.m. Pure Water Antelope Valley – A Critical Water Supply Project for a Large Disadvantaged Community**
Kim Pugel, Stantec; Dennis Hoffmeyer, Palmdale Water District
- 4:00 p.m. Climate Change in the Drinking Water and Wastewater Sectors and the Impact on Financial Resilience, Insurability, and Credit and Investment Quality**
Aliza Furneaux, Environmental Protection Agency; Curt Baranowski
- 4:30 p.m. Inflation Reduction Act: Direct Pay Tax Incentives and Grants for Qualifying Utility Projects**
Doug Baldessari, Baker Tilly Municipal Advisors
- Alternate Financial Risk Mitigation: Utilizing long-range rate and financial planning helps minimize the impacts of large capital projects**
Josiah Close, HDR; Daniel Zimmerman, Rockwood Water Peoples Utility District
- Alternate Managing Support Services Cost is Not an After Thought but and Integral Best Practice in Clayton's Utility Financial Resilience**
Rich Cappola, Robert McKie, Town of Clayton; Rupa Jha, Black and Veatch

Session 12: Water Research Foundation Project 5189 - AI/ML Framework for Water and Wastewater Utilities

Wednesday, February 14, 2024

3:30 p.m. - 5:00 p.m.

Speakers: Prabhushankar Chandrasekeran, Arcadis; Salil Kharkar, DC Water; John Norton, Jr, Great Lakes Water Authority; Mark Thomas, Denver Water; Javad Roostaei, Hazen and Sawyer

Many water utilities struggle with the assessment, planning, and implementation of data analytics projects especially those involving Artificial Intelligence (AI) and Machine Learning (ML) products and solutions. Since AI/ML technologies offer solutions to all business functions of the water utility - operations, maintenance, financial management, customer experience, engineering, and planning - it becomes imperative for water utilities to chart a pathway for adopting AI/ML products and solutions to create better outcomes. While there is a clear understanding of the challenges with adopting AI/ML products and solutions, there is currently no resource for water utilities to effectively assess the relevance of AI/ML initiatives, their readiness and gaps with implementing AI/ML technologies, and developing a pathway for phased implementation of these technologies. The Water Research Foundation (WRF) created this project (WRF 5189) to help address these concerns and to provide quantifiable results and real case studies that will help utilities evaluate AI/ML techniques and determine what tools are the best fit for their organization. This interactive session is designed to explore the transformative potential of advanced analytics, data-driven modeling, and application of machine learning technologies in the water industry, with a focus on education using practical case studies.

Session 13: Incorporating Equity into Utility Decision Making
Thursday, February 15, 2024
8:30 a.m. - 10:00 a.m.

- 8:30 a.m.** **How Do You Say 'Aquifer' in Spanish? How Incremental Changes Result in Meaningful Advancement of Diversity, Equity, Inclusion, and Belonging (DEIB) through the City of Boise's Recycled Water Program**
Haley Falconer, City of Boise Public Works Department; Tiffany Torres, Andrea Hall, Brown and Caldwell
- 9:00 a.m.** **A Journey that Navigated Houseless Encampments Empathetically, Provided Core Services, and Prioritized Staff Safety & Wellness**
William Owen, Aster Moulton, Randy Lyons, Multnomah County Drainage District
- 9:30 a.m.** **A Repeatable and Clear Methodology for Utilities to Evaluate and Resolve Potential Inequities in Your Capital Improvement Program**
Jennifer Belknap, Carollo Engineers; William Elledge, DC Water
- Alternate** **Economics of Equity in Infrastructure Decisions**
Chris Behr, HDR

Session 14: Innovating the Consumer Experience
Thursday, February 15, 2024
8:30 a.m. - 10:00 a.m.

Speakers: Catherine Carter, Melissa Elliott, Raftelis; Jacqueline Jarrell, Charlotte Water

In an era marked by rapid technological advancements, the water and wastewater industry is poised for significant changes that reach far beyond the pipes and treatment plants. As customer expectations evolve, utilities must innovate to enhance the consumer experience. This session will delve into the multifaceted aspects of innovating the consumer experience at water and wastewater utilities, focusing on changing expectations, utility oversight and policies, optimizing the customer journey, and the role for technology and automation in the future of customer service. The session will incorporate short special topics presentations, panel discussions with opportunities for audience participation, and visual facilitation, with the overarching theme of defining and delivering a great customer experience.

Session 15: Optimizing Business Practices
Thursday, February 15, 2024
8:30 a.m. - 10:00 a.m.

- 8:30 a.m.** **Finance, Procurement, Contracts and the PMO, Can It Be Love? How We Have Worked across Barriers to Thrive Together**
Shannon Spence, Lyle Beefelt, Prince William County Service Authority
- 9:00 a.m.** **How to Maximize the Generational Infrastructure Funding by Innovating Procurement Practices to Align with Asset Management and Sustainability Goals**
Randy Moore, Tnemec Company, Inc.; TJ Stroebel, Kurita America Inc.
- 9:30 a.m.** **Warehouse Best Practices - Dealing with Limited Storage and Supply Chain Issues in a Post-COVID Environment**
James Decker, Hazen and Sawyer; Zonetta English, Rene' Lindsey, Louisville & Jefferson County MSD
- Alternate** **Capital Delivery Optimization and Best Practices**
Brandon Vatter, Raftelis Financial Consultants; Rich McGillis, Blue Cypress Consulting LLC; Donnie Couch, Sanitation District No 1
- Alternate** **Evolution of a Water Utility: Holding On to G.S.D. to Steward and Trusted Provider**
Frank Sidari, Pittsburgh Water and Sewer Authority

Session 16: Management and Oversight of New Frontiers in Artificial Intelligence
Thursday, February 15, 2024
8:30 a.m. - 10:00 a.m.

- 8:30 a.m.** **Laws and Ethics of Using AI in Utility Operations and Management**
James Cooper, Arcadis
- 9:00 a.m.** **A Board Level Guide to Risks and Opportunities of AI in the Water Sector**
Nandita Ahuja, Ben Stanford, Katya Bilyk, Javad Roostaei, Hazen and Sawyer
- 9:30 a.m.** **Sustainability Bias in Utility and Infrastructure Related ChatGPT Queries**
William Kuehne, Lauren Basler, Ardurra
- Alternate** **Ready or Not, Artificial Intelligence Is Here!**
Sasa Tomic, HDR; Gigi Karmous-Edwards; Paul Fleming, WaterValue
- Alternate** **Predictive Modeling for Water Main Likelihood of Failure: Integrating
Machine Learning Techniques and Experts Insights with Utility Data - A
Case Study of Virginia Beach**
Javad Roostaei, Paul Wilson, Malia Turner, Hazen and Sawyer; Steven Cook,
Virginia Beach Public Utilities; Donald Piron, Virginia Beach Public Utilities; Katya
Bilyk, Reid Cagir, Zachary Perkins, Hazen and Sawyer

Session 17: Utility Resilience and Reliability
Thursday, February 15, 2024
10:30 a.m. - 12:00 p.m.

- 10:30 a.m. Empowering People for Sustainable Utility Resilience**
Jason Carter, Arcadis; Joone Lopez; Matt Collings, Drew Atwater, Rod Woods,
Moulton Niguel Water District
- 11:00 a.m. The Importance of Cyber Resiliency in the Modern Utility: the Metropolitan
St. Louis Sewer District Journey**
Jonathon Sprague, HDR; Ginny Kienstra, Metropolitan St Louis Sewer District
- 11:30 a.m. Drinking Water Utility-Level Understanding of Climate Change Effects to
System Reliability**
Zia Lyle, Carnegie Mellon University
- Alternate Successful Water Crisis Communications: Lessons Learned from The
Texas & Southern Freezes**
Michael McGill, WaterPIO

Session 18: Innovation Amplified: Harnessing Collaboration and Communications for Breakthrough Solutions

Thursday, February 15, 2024

10:30 a.m. - 12:00 p.m.

Speakers: Katelyn Skornia, Arcadis; Ryan Locicero, Clean Water Services; Mike Huot, Sacramento Area Sewer District and Regional San; Medha Paliwal, Orange County Water District; Jason Carter, Joanna Brunner, Arcadis

In this session, a panel of executive champions, innovation leaders, and communication professionals from different utilities will discuss innovation at their organizations and how they communicate the impact of innovation. Through a facilitated discussion, these leaders will share their stories on how they have built a culture of innovation, challenges they have experienced in maintaining engagement at different levels throughout the organization, and specific actions that have helped overcome these obstacles. The experiences shared in this session will demonstrate how using a combination of metrics and effective storytelling is needed to engage and encourage different audiences throughout their organization. By capturing a diverse set of perspectives and expertise from leadership, innovation, and communications, this session will equip other leaders to effectively align communications and performance measures with their strategic priorities for greater impact and influence in their organizations.

Session 19: Utility Planning: Essential to Success
Thursday, February 15, 2024
10:30 a.m. - 12:00 p.m.

- 10:30 a.m.** **If You Plan it, They Can Come. The City of Frisco’s Journey through Proactive Planning and Progressive Growth**
Jason Grimm, City of Frisco; Stephen Johnson, Mazen Kawasmi, Freese & Nichols Inc
- 11:00 a.m.** **Water Demand Forecasting Implementation: Best Practices for Improved Decision Making**
Jessica LeNoble, Kerr Wood Leidal; Colwyn Sunderland
- 11:30 a.m.** **The More You Know the Less You Realize You Do – Boise’s Journey in Understanding Reliability and Redundancy**
Matthew Gregg, Brown and Caldwell; Haley Falconer, City of Boise Public Works Department
- Alternate** **Not a Master Plan: Creating an Ultimate Infrastructure Plan to Aid in Preparing for Tomorrow's Growth**
Jennifer Suttles, Tai Yi Su, Gwinnett County - Department of Water Resources; Hatem El-Sayegh, Barge Design Solutions
- Alternate** **Roadmap for Achieving Energy Neutrality: Planning and Funding Energy Resiliency Projects Without Compromising Water Quality**
Elizabeth Keddy, Hazen and Sawyer; Bryan Schmerber

Session 20: Combining Data and Asset Management for Improved Monitoring and Operations

Thursday, February 15, 2024

10:30 a.m. - 12:00 p.m.

- 10:30 a.m. 10-years of Planning and Progress toward Newport's (RI) Mission to Implement Proactive Asset Management Practices**
Peter von Zweck, Jacobs; Robert Schultz, City of Newport; Edwin Rroworth, Jacobs
- 11:00 a.m. From Data Deluge to Dashboard Success: Pima County RWRD's Enterprise Dashboard Story**
Grantley Pyke, Hazen and Sawyer; Jeff Prevatt, Belinda Gamboa-Felix, Rudy Daniels, Pima County Regional Wastewater Reclamation Department; Daniela Panfil, Hazen and Sawyer
- 11:30 a.m. Selection and Implementation of a Computerized Maintenance Management System (CMMS) for Polk County Utilities, Florida.**
Sanjay Puranik, Black & Veatch; Charles Nichols, Polk County
- Alternate Maximizing Value through the use of Actionable Leak Data Knowledge**
Paul Gagliardo, Gagliacqua Consulting
- Alternate Employing a Visualization Tool to Implement a Robust and Sustainable Asset Management Program**
Marta Ortiz, Albuquerque Bernalillo County Water Utility Authority; Marcela Sion, Dilip Kumar, Hazen and Sawyer

Session 21: Alternative Project Delivery and Procurement
Thursday, February 15, 2024
1:30 p.m. - 3:00 p.m.

- 1:30 p.m.** **Get What you Need and Show What You've Got: A Panel Discussion on Qualifications-Based Selection**
Sarah Lothman, Kat Becchina, Burns & McDonnell; Allison Swisher; Rick Harris;
Jesus Rudy Gonzalez, DC Water
- 2:00 p.m.** **Supply Chain Issues Impacting the Construction of Infrastructure Projects: A Decision-Making Tool for Alternative Product Selection**
Velmurugan Subramanian, Atkins
- 2:30 p.m.** **Perspectives on Public Private Partnerships (P3): Expert Panel on Sustaining Water Operations using P3**
Ryan Nordvik, Arup; Thomas Crowley; Rolf Ohlemutz, Table Rock Capital;
Chandrasekar Venkatraman, Veolia
- Alternate** **Managing the Largest Program in PWBs History: Cost, Schedule, and Quality Strategies to Achieve Success**
Kyle Sandera, Brown and Caldwell; Michelle Cheek, David Peters, Portland
Water Bureau
- Alternate** **Return on Investment - Does the Owner's Advisor Add Value to your Project?**
Will Shull, HDR; Nicole Bartlett, Charlotte Water; John Shutak

Session 22: Communications and Public Engagement
Thursday, February 15, 2024
1:30 p.m. - 3:00 p.m.

- 1:30 p.m.** **Launching a Service Line Replacement Program – Denver Water Lessons on Building in Equity and Reaching Audiences through Communications, Outreach & Education**
Stacy Chesney, Denver Water; Meg Trubee
- 2:00 p.m.** **Keep Your Water Quality Data Close, and the Tap Water Critics Closer**
Jonathan Leung, Kaushal Parbhoo, Los Angeles DWP
- 2:30 p.m.** **Best Practices in Utility Communications: Tips and Tricks from the Pros**
Monica Hoyt, Central Utah Water Conservancy District; Kelley Dearing Smith, Louisville Water Company; Mandy Cawby, WaterOne; Douglas Shackelford, Central Arkansas Water
- Alternate** **How to Successfully Communicate about PFAS in the Post-MCL World: Case Studies from Across the Country**
Michael McGill, WaterPIO
- Alternate** **Strategic Messaging for More Effective Communications on Sanitary Sewer Overflows in the Chesapeake Bay Watershed**
Meghan Robinson, HDR; Edward Shea, Wiley and Wilson; George Heiner, Anne Arundel County DPW

Session 23: How Rockwood Water People's Utility District and the City of Portland Benefitted from WIFIA Financing for their Water Infrastructure Projects

Thursday, February 15, 2024

1:30 p.m. - 3:00 p.m.

Speakers: Dallas Shattuck, Karen Fligger, US EPA; Kari Duncan, Rockwood Water People's Utility District; Cecelia Huynh, Portland Water Bureau

The Water Infrastructure Finance and Innovation Act (WIFIA) program is a government bank operated by US EPA headquarters that provides supplemental, flexible, low-cost credit assistance to public and private borrowers for all types of wastewater, drinking water, and stormwater projects. The WIFIA program offers long-term loans that can be combined with State Revolving Fund assistance, municipal bonds, and federal and state grants to help communities deliver more critical water infrastructure projects for a lower cost with less impact on rate payers. In this session, we will begin by providing a brief overview of the WIFIA program, including eligibilities, benefits, and flexibilities of WIFIA financing. We will then conduct a panel discussion between US EPA and current WIFIA borrowers about their projects and the benefits of utilizing WIFIA financing for their water infrastructure investments.

Session 24: Real World Applications of Artificial Intelligence
Thursday, February 15, 2024
1:30 p.m. - 3:00 p.m.

- 1:30 p.m.** **DC Water’s Journey to ChatGPT**
Robert Bornhofen, DC Water
- 2:00 p.m.** **Flowing Forward: Revolutionizing Water Utilities with AI**
Tim D’Agostino, P.W. Grosser Consulting
- 2:30 p.m.** **Tucson Water LCRR Inventory Development, Powered by Artificial Intelligence**
Eric Packer, Erin Lansey, HDR
- Alternate** **Transforming Water Modeling Practices: AI-Enhanced Water Distribution and Quality Modeling with Real-Time IoT Data - A Case Study of the Houston Water**
Satish Tripathi, City of Houston; Akshaya Niraula, Bentley
- Alternate** **Using Artificial Intelligence to Optimize Sewer Preventative Maintenance**
Sara Titus, WSSC Water
- Alternate** **The Amazing AI Race: Pit Stops, Detours, and Green Flags**
Kelly Alexander, Alexander Palmatier, HDR; Eric Sullivan, Tim McGarry, SewerAI

Session 25: Diversity, Equity, and Inclusion from a Water Utility's Perspective
Thursday, February 15, 2024
3:30 p.m. - 5:00 p.m.

- 3:30 p.m.** **Being Intentional with Diversity, Equity, Inclusion, and Environmental Justice**
Rosanna La Plante, Eric Mcfarland, Kishia Powell, WSSC Water
- 4:00 p.m.** **Beyond the Commitment: Embedding Diversity, Equity, and Inclusion within Public Utilities**
Lydia Hartman, Constance Haqq, Northeast Ohio Regional Sewer District
- 4:30 p.m.** **DEI - It Can Be A 'Dirty Word'**
C. Tad Bohannon, Central Arkansas Water
- Alternate** **Empowered Women Empower Others. A Generational Discussion of Women Leading in Today's Digital Solutions.**
Katie Deheer, Trinnex

Session 26: The Business Case for Water Affordability: A Quantitative Approach
Thursday, February 15, 2024
3:30 p.m. - 5:00 p.m.

Speakers: Lawrence Levine, Natural Resources Defense Council; Roger Colton, Fischer, Sheehan & Colton, Public Finance and General Economics; Tony Searls, Greater Cincinnati Water Works

To help provide safe and affordable water and sanitation to everyone in their communities, some utilities are turning to various forms of low-income customer discounts. But utility managers and others often have questions about the financial impacts that such programs will have on a utility. Experience in the energy utility sector and emerging data in the water and wastewater utility sector show that, by improving customers' complete, timely, regular, unprompted payment of bills, a low-income discount program can benefit a utility financially, significantly offsetting (or even exceeding) the costs of such a program. Even though a portion of low-income customers' bills are discounted, payments can increase such that total cash collections may go up, while the costs of collecting that revenue go down. Put another way, utilities can make a 'business case' for offering a low-income discount program, by considering the program as a collection device designed to improve overall revenue and strengthen the utility's financial position.

This session will present a new downloadable Excel-based tool, which water and wastewater utilities can use to assess their own business case for adopting a low-income discount program. This 'Water Affordability Business Case Tool' was developed by a nationally-recognized expert on water affordability and affordable utility rates, who will be one of the presenters in this session. The session will demonstrate how utilities can use the Tool to assess the extent to which a rate-funded affordability initiative can be justified as a collection device designed to improve overall revenue and strengthen the utility's financial position; or, in the alternative, the extent to which external financial support might be needed to generate the desired outcomes within internal resource constraints.

Session 27: Utility Financing - A Multi-Faceted and Long Term Effort
Thursday, February 15, 2024
3:30 p.m. - 5:00 p.m.

- 3:30 p.m. A Strategic Approach to Enhancing Collections Management**
Hernando Parrott, Open International; Andrew Carlstrom, Tualatin Valley Water District
- 4:00 p.m. Puget Sound Wastewater Service Affordability Analysis: Potential Impacts of Implementing the Nutrient General Permit**
Susan Burke, Stantec; Aimee Kinney, UW Puget Sound Institute
- 4:30 p.m. What got us here won't get us there: Building Alignment around a (One) Water Resiliency Strategy to Prioritize, Fund, and Communicate Capital Project Needs**
Holly Tichenor, Brown and Caldwell; Frank Dick, City of Vancouver, WA Public Works; Rachel Garrett
- Alternate An Uphill Battle: A NC Case Study of Utility Cost Recovery and Customer Affordability**
Olivia August, Hazen and Sawyer; Martin Doyle, Duke University
- Alternate Strength Based Billing: An Updated Cost Allocation and Billing Framework for San Diego's Metro Wastewater System**
Benjamin Stewart, Stantec; Adam Jones, City of San Diego, Public Utilities Department; William Zieburtz, Burton & Associates

Session 28: Applications of Data Management and Analysis
Thursday, February 15, 2024
3:30 p.m. - 5:00 p.m.

- 3:30 p.m.** **Using Data Analysis to Improve Household Water Conservation: One Utility's Journey**
Glenn Barnes, Water Finance Assistance
- 4:00 p.m.** **Getting Ahead of Innovation by Taking a Step Back: Data Management Planning at Cape Fear Public Utilities Authority**
Elizabeth Severt, Chris Bolton, Cape Fear Public Utility Authority; Timothy Devine, Malia Turner, Ben Stanford, Hazen and Sawyer
- 4:30 p.m.** **Leveraging the Dataverse to Enable Living Data Management from Design to Operations**
Kirk Olds, Brown and Caldwell; Devin Sanders, Portland Water Bureau; Riley Middlebrook, Brown and Caldwell; Dale Johnson, Marquam
- Alternate** **A Practical Sewer Network Digital Twin - It is not a PIPE dream**
Varun Srinivasan, Steven Drangsholt, Trinnex
- Alternate** **Maximizing Revenue Recovery through the Incident Command System: A Holistic Approach to Financial Strategy in Water Utilities**
Robert Maloney, WSSC Water

Session 29: Change Management: Considering Culture, Workforce, Business Processes, and Technology

Friday, February 16, 2024

8:30 a.m. - 10:00 a.m.

Speakers: Mia Sabanovic, City of Portland Bureau of Environmental Service; Marco Merrick, Baltimore City Department of Public Works; Nohemy Revilla, San Francisco Public Utilities Commission; Jessica Maloney, MWR Denver; Rosa Castro, MWD So. Cal.

This session will include two parts:

1. Testimonials/case studies from staff and management in public water sector utilities who applied a framework based on value gained and an easy approach built on systems thinking to address different organizational challenges and design and implement improvements. Presentations will demonstrate how products from completed WRF projects (Vitasovic et. al., 2022, Lehman et al. 2022) have been used by utilities to add value and improve specific aspects of performance including: a) a value-based framework that considers People, Processes, and Technology, b) maturity models and assessment tools for each of these elements; and c) a continuous improvement methodology including Change Management.
2. Facilitated interactive panel discussion including interaction with the audience to address their questions and comments.

Session 30: Utility Collaboration & Regionalization B
Friday, February 16, 2024
8:30 a.m. - 10:00 a.m.

- 8:30 a.m. A Watershed Moment for Regionalization**
Kevin Gibson, Wesley Sydnor, Louisville & Jefferson County MSD
- 9:00 a.m. Breaking Boundaries, Transforming Communities: The Stowe Regional
Water Resource Recovery Facility - Pioneering a Collaborative Approach to
Regional Wastewater Management**
David Saunders, HDR; Angela Charles, Charlotte Water
- 9:30 a.m. Being Intentional About Collaboration and Regionalization to Overcome
Paralysis and Put the People First**
C. Tad Bohannon, Central Arkansas Water; Aaron Benzing, Hawkins Weir
Engineers Inc; Chelsea Boozer
- Alternate Collaborative Solutions for Reuse to Eliminate Surface Water Discharge in
Southwest Florida**
Justin Saarinen, CDM Smith; Jason Sciandra, City of Ft Myers

Session 31: Integrated Water Management
Friday, February 16, 2024
8:30 a.m. - 10:00 a.m.

- 8:30 a.m. Raleigh Water's Unified Vision: Mastering Integrated Planning**
Nicola Hill, Adam Sharpe, HDR; Janeen Goodwin, Raleigh Water
- 9:00 a.m. Integrated Urban Wet Weather Solutions Save Money and Provide More Benefits**
Andrew Sauer, Burns & McDonnell; Andy Shively, Kansas City Water
- 9:30 a.m. Using Meter Readings to Identify Conservation Opportunities: A Low-Cost, No-Code Digital Solution**
Jonathan Hoechst, Tetra Tech
- Alternate Lessons Learned: Utility Strategies for Developing & Commercializing Water Reuse**
Isabel Kezman, Bluefield Research
- Alternate Ground Water and Surface Water Pricing Strategies**
Isalah Barnes, Carollo; Summer Hvasta, San Jacinto River Authority

Session 32: Optimization of Operation & Maintenance
Friday, February 16, 2024
8:30 a.m. - 10:00 a.m.

- 8:30 a.m. More RATs, Less Problems: Acoustic Inspection as a Smart Water Solution in Bend, Oregon**
Alex Churchill, InfoSense Inc
- 9:00 a.m. Asset Management, Machine Learning, & Connected Devices: Optimizing Collection System O&M**
Jacob Mueller, HDR
- 9:30 a.m. Improving Operations by Taking a Step Back and Finding Opportunities for Continuous Improvement**
Veronica Jensen, Toho Water Authority; Erik Dabrowski
- Alternate Charlotte Water's Use of a Risk Management Tool to Effectively Mitigate Sanitary Sewer Overflows**
Jason Bromirski, Charlotte Water; Glen Hill, Tim Schempp, SmartCover Systems
- Alternate Lessons Learned from Installation of Los Angeles County Public Works' First Arsenic Treatment Plant**
Joon Jang, TJ Kim, Ramy Mattar, Los Angeles County Public Works

Session 33: Decision Making with the Customer in Mind

Friday, February 16, 2024

10:30 a.m. - 12:00 p.m.

10:30 a.m. Solutions to Construction Challenges for an Equitable and Incentivized Lead Service Line Replacement Program

Jennifer Lachmayr, Arcadis; Joseph Lanzafame, City of New London

11:00 a.m. AMI: Leveraging the Power of Data

Nicole Bates, Mount Pleasant Waterworks

11:30 a.m. More than Metrics: Northeast Ohio Regional Sewer District's Path for Customer Affordability Programs

Carol Malesky, Stantec; Constance Haqq, Northeast Ohio Regional Sewer District

Alternate Effective Strategies for Building Consensus with a Rate Advisory Committee

Paul Matthews, Tualatin Valley Water District; Elizabeth Bakke, Barney & Worth Inc

Session 34: Engaging the Community in One Water Programming
Friday, February 16, 2024
10:30 a.m. - 12:00 p.m.

Speakers: Amy Weinfurter, Victoria Arling, WaterNow Alliance

Trusted relationships between water utilities and their communities are more important than ever to ensure delivery of equitable, affordable access to clean, reliable drinking water, wastewater, and stormwater services. Increasingly, water leaders are working to develop and strengthen relationships with community members. These efforts are especially important for utilities and water resource agencies looking to advance One Water programs, i.e., integrated and sustainable water resource management initiatives that involve decentralized infrastructure distributed across communities, such as green stormwater infrastructure, water use efficiency initiatives, drought-tolerant landscaping, water use monitoring and leak detection technologies, graywater reuse, and more. However, implementing One Water strategies requires an intentional engagement with community members of all kinds, and in particular those who are or have been disproportionately impacted by water challenges, such as neighborhood flooding, unaffordable rates, and/or face unique barriers to access to clean, safe water services. This panel presentation will feature case studies from communities across the county demonstrating how various types of community partnerships and outreach can support innovative One Water programming and ensure that implementation of these programs includes and benefits all of their community members.

Session 35: Strategic Planning B
Friday, February 16, 2024
10:30 a.m. - 12:00 p.m.

- 10:30 a.m. Moving Up a Level: Charleston Water System’s Journey to Update its Strategic Asset Management Plan**
David Gordon, Charleston Water System; Martin Jones, Black & Veatch; Connie Banegas, Charleston Water System; Ahmet Ozman
- 11:00 a.m. Making a Strategic Plan is the Easy Part...Actually Implementing It...Well, That's a Whole Different Ball Game! — SWBNO's Strategy for Strategic Plan Implementation**
Rocky Craley, Raftelis; Kaitlin Tymrak, Sewerage and Water Board of New Orleans
- 11:30 a.m. Using a Compass to Find Your Direction: Miami-Dade Water and Sewer Department’s Employee-Led Five-Year Strategic Plan**
Roy Coley, Miami Dade County Water & Sewer Dept; George Hawkins, Moonshot Missions Inc.; Debbie Griner; Susie O'hara, Moonshot Missions
- Alternate More Than Pretty Pictures – Developing a Utility Strategic Plan That Enhances Public Trust**
Michael Brink, HDR, Inc.; Jeff Thorn, City of Lee's Summit Water Utilities
- Alternate It's Not all Numbers: How Boise Translates Levels of Service into Decision Making Criteria for Capital Planning**
Manon Fisher, Brown and Caldwell; Evan Carpenter, City of Boise

Session 36: Utility Sustainability and Environmental Challenges
Friday, February 16, 2024
10:30 a.m. - 12:00 p.m.

- 10:30 a.m. Ready or Not: Implementing DOE's 50001 Ready Program for Establishing an Energy Management System**
Michael McGrath, Fairfax County; Khis Suravallop, SE Three, PLLC; Shannon Zaret
- 11:00 a.m. Creating a Culture of Environmental Compliance and Ethics at Your Utility**
Frank Sidari, Pittsburgh Water and Sewer Authority
- 11:30 a.m. Developing a New Long-Term Demand Forecasting Model for Seattle Public Utilities**
Joseph Crea, Raftelis; Elizabeth Garcia, Seattle Public Utilities
- Alternate From Biogas to Green Hydrogen – What's the Impact of the Energy Transition on Water Utilities?**
Ethan Edwards, Bluefield Research
- Alternate More Than Just SSO Prevention, Environmental Stewardship at the Prince William County Service Authority**
Don Pannell, Douglas Shoop, Prince William County Service Authority; Corey Williams, SmartCover Systems