

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 January 4, 2024)

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

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; Jaclyn Knoth, City of Bellevue, WA; John Nice,

Mark Poling, Clean Water Services

Focusing time and attention on maintenance programs and practices is one of the most significant opportunities for utilities to address rising costs, minimize service disruptions, and ensure sustainability of infrastructure investments. Learn how effectively implement maintenance programs, start a Reliability Centered Maintenance (RCM) approach, and provide the necessary foundation to extend infrastructure operability, facilitate knowledge retention, meet regulatory requirements, and make the most of financial investments. Don't miss this interactive workshop where you'll hear from national and regional utility manager, practitioners, maintenance personnel, and operators who are at various levels in their maintenance reliability journey. Learn from a range of experts and real-world experiences through interactive problem solving, presentations, and discussions. Come ready to hear and share best practices, tangible examples, key insights, data-driven solutions, and appropriate technology applications. This workshop will help you to advance your utilities' maintenance program and practices, including:

- In-depth understanding of the necessary requirements to increase system reliability by utilizing failure analysis and applying improved maintenance strategies.
- Proven strategy development using maintenance and reliability best practices to significantly decrease maintenance and operating costs, while reducing equipment failure risks.
- Adopting maintenance programs through change management principles, including consistent communication tactics and cultural components can deliver results, supporting and sustaining the success of maintenance teams.

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; Jeff Lucas, Xylem; 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.

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,

Moulton Niguel Water District, CA; Matthew Griffith, Louisville Water

Company, KY; Brett Taylor, Wilmington, DE; Marissa Huntley,

Sammamish Plateau Water, WA

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.

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.

Opening General Session Wednesday, February 14, 2024 8:30 a.m. - 10:00 p.m.

More information about the opening general session is coming soon.

10:00 a.m. Session adjourns for networking break

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.

A full agenda for this session is coming soon!

12:00 p.m. Session adjourns for networking luncheon

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

Moderator: Heidi Hackett, Cape Fear Public Utility Authority

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

<u>Kendall Ryan</u>, Bailey Keller, David Munn, Freese and Nichols; Jared Barber; Lindsey Reid, Freese and Nichols; Richard Weatherly; Jameson Appel, City of

Pearland

12:00 p.m. Session adjourns for networking luncheon

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.

Moderator: Sharon Peters, EMA, Inc.

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

12:00 p.m. Session adjourns for networking luncheon

Alternate Setting Expectations: Providing Flexible Project Guidance to Align the

Management of Projects Across an Organization

<u>Sree Kolapalli</u>, Loudoun Water; Michael Dalton, Hazen and Sawyer; Thomas Lipinski, Loudoun Water; Ryan Nagel, Conor Brennan, Hazen and Sawyer

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; Jeanetta Williams, Prince William County Service Authority; Michael Beardslee, Craig Lees, Loudoun 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.

A full agenda for this session is coming soon!

12:00 p.m. Session adjourns for networking luncheon

Session 05: Workforce Development: A Focus on Operators

Wednesday, February 14, 2024

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

Moderator: Rhonda Harris, Workforce Research Solutions

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

3:00 p.m. Session adjourns for networking break

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.

Moderator: Prabha Kumar, Black & Veatch

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, Pono Hanson, 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

3:00 p.m. Session adjourns for networking break

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, Tanya Miro, Kimley-Horn and Associates, Inc.; John Bennett,

Trinity River Authority of Texas; Theresa Bruton, DC Water; Scott Schladweiler,

Tucson, AZ; Renee Willette, US Water Alliance; Anas Malkawi, HRSD

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.

A full agenda for this session is coming soon!

3:00 p.m. Session adjourns for networking break

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

Moderator: Getachew Melsew, DC Water

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, Erin Mackey, Brown and Caldwell; 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 Al Technologies Fazle Rabbi, Pratistha Pradhan, City of Houston

3:00 p.m. Session adjourns for networking break

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.

Moderator: Matt Gregg, Brown and Caldwell

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

5:00 p.m. Session adjourns for networking reception

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.

Moderator: Aditya Ramamurthy, Kennedy/Jenks

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

<u>J Leslie Corcelli</u>, US Environmental Protection Agency; Andrew Kricun

5:00 p.m. Session adjourns for networking reception

Alternate Checking Boxes and Moving the Needle – Incrementally Advancing Asset

Management Program Value for Utilities

<u>Alden Wyma</u>, 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.

Moderator: Robert Ryall, Arcadis

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

5:00 p.m. Session adjourns for networking reception

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 - Al/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 Al/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.

A full agenda for this session is coming soon!

5:00 p.m. Session adjourns for networking reception

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

Moderator: Ann Casey, Carollo Engineers

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

10:00 a.m. Session adjourns for networking break

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;

Julie Mechling, Pittsburgh Water; Krystina Bryant, City of Baltimore Department

of Public Works

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.

A full agenda for this session is coming soon!

10:00 a.m. Session adjourns for networking break

Session 15: Optimizing Business Practices Thursday, February 15, 2024

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

Moderator: Jhoanna Murphy, City of Tulsa

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 Stroebl, 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

10:00 a.m. Session adjourns for networking break

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.

Moderator: Christine Boyle, Burnt Island Ventures

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

10:00 a.m. Session adjourns for networking break

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.

Moderator: Paul Suto, City of Portland BES

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

12:00 p.m. Session adjourns for lunch on your own

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.

A full agenda for this session is coming soon!

12:00 p.m. Session adjourns for lunch on your own

Session 19: Utility Planning: Essential to Success

Thursday, February 15, 2024

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

Moderator: Jennifer Ivey, Carollo Engineers

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

12:00 p.m. Session adjourns for lunch on your own

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.

Moderator: Maria DeChellis, Oracle

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

<u>Grantley Pyke</u>, Hazen and Sawyer; Jeff Prevatt, Belinda Gamboa-Felix, Rudy Daniels, Pima County Regional Wastewater Reclamation Department; Daniela

Panfil. Hazen and Sawver

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

12:00 p.m. Session adjourns for lunch on your own

Alternate Maximizing Value through the use of Actionable Leak Data Knowledge

Paul Gagliardo, Gagliacqua Consulting; Bruno Tume, Asterra

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.

Moderator: Brian Shell, WSP USA

1:30 p.m. Get What you Need and Show What You've Got: A Panel Discussion on

Qualifications-Based Selection

<u>Sarah Lothman</u>, Kat Becchina, Burns & McDonnell; <u>Allison Swisher</u>, City of Joliet, IL; <u>Rick Harris</u>, City of Leesburg, FL; <u>Thom Lipinski</u>, Loudoun 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

3:00 p.m. Session adjourns for networking break

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.

Moderator: Fletcher Davis, Denver Water

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; <u>Kelley Dearing Smith</u>, Louisville Water Company; Mandy Cawby, WaterOne; Douglas Shackelford,

Central Arkansas Water

3:00 p.m. Session adjourns for networking break

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.

A full agenda for this session is coming soon!

3:00 p.m. Session adjourns for networking break

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

Moderator: Travis Wagner, Trinnex

1:30 p.m. DC Water's Journey to ChatGPT

Robert Bornhofen, DC Water

2:00 p.m. Flowing Forward: Revolutionizing Water Utilities with Al

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

3:00 p.m. Session adjourns for networking break

Alternate Transforming Water Modeling Practices: Al-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 Al Race: Pit Stops, Detours, and Green Flags

Kelly Alexander, Alexander Palmatier, HDR; Eric Sullivan, Tim McGarry, SewerAl

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

Moderator: Shawn Heselton, HRSD

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

5:00 p.m. Session adjourns

Alternate Empowered Women Empower Others. A Generational Discussion of

Women Leading in Today's Digital Solutions.

Katie Deheer, Carolyn Christy, 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.

A full agenda for this session is coming soon!

5:00 p.m. Session adjourns

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

Moderator: Ann Hajnosz, Sharon & Associates

3:30 p.m. An Uphill Battle: A NC Case Study of Utility Cost Recovery and Customer

Affordability

Olivia August, Hazen and Sawyer; Martin Doyle, Duke University

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

5:00 p.m. Session adjourns

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.

Moderator: Brett Anderson, City of Minneapolis

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

5:00 p.m. Session adjourns

Alternate A Practical Sewer Network Digital Twin - It is not a PIPE dream

Varun Srinivasan, <u>Jonathan Nelson</u>, Steven Drangsholt, <u>Carolyn Christy</u>, 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.; Vanessa Dyson, Andrew Pearce, UK Environment

Agency

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.

A full agenda for this session is coming soon!

10:00 a.m. Session adjourns for networking break

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

Moderator: Rick Warner, Jacobs

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

<u>David Saunders</u>, 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, Rogue Water Lab

10:00 a.m. Session adjourns for networking break

Session 31: Integrated Water Management Friday, February 16, 2024

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

Moderator: Sarah Lothman, Burns & McDonnell

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

10:00 a.m. Session adjourns for networking break

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.

Moderator: Brittany Dowling, City of Portland Bureau of Environmental Services

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. 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

10:00 a.m. Session adjourns for networking break

Session 33: Decision Making with the Customer in Mind Friday, February 16, 2024 10:30 a.m. - 12:00 p.m.

Moderator: Terry Fairchild, Cole Fairchild Consulting

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 Hagg, Northeast Ohio Regional Sewer

District

12:00 p.m. Conference adjourns

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, Becky Anderson, 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.

A full agenda for this session is coming soon!

12:00 p.m. Conference adjourns

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

Moderator: Ryan Locicero, Clean Water Services

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

12:00 p.m. Conference adjourns

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.

Moderator: Angela Bricmont, Denver Water

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

12:00 p.m. Conference adjourns

Alternate From Biogas to Green Hydrogen – What's the Impact of the Energy

Transition on Water Utilities?

<u>Ethan Edwards</u>, 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