Technical Program
(As of November 29, 2021)

February 21-24, 2022
Hyatt Regency Grand Cypress
Orlando, Florida

This conference is jointly hosted by the Water Environment Federation and American Water Works Association in cooperation with the Florida Water Environment Association.
Pre- Conference Workshops
Monday, February 21, 2022
7 workshop programs, individual descriptions provided on the following pages.
(Additional fees apply)

8:30 a.m. - 5:00 p.m.
- Workshop A: Solving the Affordability Riddle: Creating a Framework for Customer Assistance Programs that Bridge Legal Barriers and are Financially Sound

8:30 a.m. - 12:00 p.m.
- Workshop B: Communicating to Decision Makers: Getting Your Staff To Understand
- Workshop C: Smart Water Utility Framework and Maturity Assessment

1:30 p.m. - 5:00 p.m.
- Workshop E: Workforce Development - Developing the Whole Person: A Tactical View for Workforce Competency
- Workshop F: Combining Traditional SCADA with Contemporary Analytics: Big Data Finally Yields Big Benefits
- Workshop G: A Practical and Concise Approach to Developing an Effective Strategic Asset Management Plan

Technical Program
Tuesday, February 22 – Thursday, February 24, 2022
35 Sessions, individual agendas provided on the following pages.
Pre-Conference Workshops
Monday, February 21, 2022
(Additional fees apply)

Workshop A: Solving the Affordability Riddle: Creating a Framework for Customer Assistance Programs that Bridge Legal Barriers and are Financially Sound

Monday, February 21, 2022
8:30 a.m. - 5:00 p.m.

Customer Assistance Programs (CAPs) are fraught with real and perceived barriers, but there is a better way. CAPs can be used to harness and align your customer services with the need in your community in a way that surmounts legal barriers and appreciates the full costs and financial benefits each CAP provides. Learn the tools and the techniques from leading utilities of all sizes to start or enhance your customer assistance and affordability efforts. As part of this session participants will work on developing a CAP framework that provides guidance in terms of qualification thresholds as well as levels of assistance and be introduced to a tool that helps utilities rank assistance programming based on new financial impacts or consequence of a range of options.

Consistent with that over-arching intent, we have identified an opportunity to develop a business case framework for rate funded customer assistance programs (CAPs) that would address perceived or real legal barriers. The objective is to identify a fundamentally sound way to comprehensively evaluate various CAPs with an appreciation of the full costs and financial benefits each would provide. In so doing, utilities would have the ability to select and design CAPs that address legal concerns (including those stemming state statutes, case law, and/or bond covenants) and provide a neutral or positive financial benefit that would support funding from rates. The framework would serve to provide guidance to utilities in terms of qualification thresholds as well as levels of assistance as utilities would now have a clear understanding of the net financial impacts or consequences of a range of options.

Learning Objectives:
- Learn the basis for CAP needs to justify the program for their utility;
- Evaluate the broad range of CAP options available and select those that might work best for a utility’s affordability needs;
- Interact with a CAP framework to learn to identify potential barriers and how to overcome them; and
- Create the beginnings of a CAP framework that is specific to their utility.

Workshop B: Communicating to Decision Makers: Getting Your Staff To Understand

Monday, February 21, 2022
8:30 a.m. - 12:00 p.m.

The burden of effective communication is on the sender, not the receiver. Unfortunately, most of our junior- and mid-level staff are poorly equipped to be good communicators. There are many textbooks and guidance documents that highlight the importance of better communication
but there is limited practical guidance provided. Technical professionals frequently cite communicating with decision makers as the most difficult part of their job. This workshop will explore what decision makers can do to mold their staff into better communicators. Developing a staff of effective trusted advisors to executive teams and decision makers requires more than standard marketing training or communications webinars. Workshop participants will leave with a checklist of practical action items that they can take home to implement with their staff. More importantly, workshop attendees will be provided with a solid understanding of ‘where to start’ and milestone tips and pointers for measuring improvement. The workshop will be facilitated by three, 30-year-plus veterans of the water and wastewater industry and by a 30-year-plus technical leader from outside the profession to get an outside view.

This interactive workshop will include case examples from presenters, breakout discussion groups, and the use of an audience response system to get immediate feedback from attendees to drive larger discussions.

Learning Objectives:
- Apply staff communication checklist at home to better develop staff skills;
- Identify key training approaches in the area of listening, empathy, and decision making;
- Understand differences between technical advisory and advocacy communication;
- Distinguish between approaches for individual and group decision-making contexts.

Workshop C: Smart Water Utility Framework and Maturity Assessment
Monday, February 21, 2022
8:30 a.m. - 12:00 p.m.

Terms such as ‘digital transformation’, ‘smart utility’, ‘digital water’, ‘intelligent water’ have been the buzzwords that we heard quite often and of interest to water utilities who have either planned and/or contemplated to digitally transform their utilities towards enterprise excellence. Over the years, the concept of digital transformation evolved from simple digitization (paper to electronic), to digitalization (manual to automated) of business processes to improve efficiency utility resources and knowledge management. Water Research Foundation (WRF) Project 5039 “Definition of Smart Utility: How to be a Digital Utility and the Framework for an Intelligent Water System (IWS)” has been tasked to develop such a framework to define and develop the various elements of an intelligent smart/digital water utility. In order to help utilities, plan their digital transformation efforts, the project has also developed a web-based intuitive tool to assess the digital maturity of the business processes of utilities.

Learning Objectives:
- Define “Smart Water Utility” so that people within the utility can easily understand;
- Demonstrate the definition of a Smart Water Utility using a simple yet reasonable framework;
- Explain simple steps within framework that utilities can take to become a Smart Water Utility;
- Learn the characteristics of a business process with respect to data collection, management, analytics, and decision making;
• Measure the current maturity of a business process in its ability to sense/collect, manage, analyze data to make necessary business decisions.


Monday, February 21, 2022
8:30 a.m. - 12:00 p.m.

Imagine either hiring on to a new water/wastewater utility or being promoted to a new management position with additional responsibilities. Imagine yourself trying to understand and prioritize the most important steps to take. Are you wondering what you would do? The updated AWWA M5 Manual 'Water Utility Management' was specifically designed for water and wastewater managers as a go-to reference to help them achieve their utility's most critical objectives. Water and wastewater managers are public health providers with unparalleled track records of success. In the 20th century alone, the application of our industry's science, tools and trades saved more lives than any other single health development. The people who design and manage our water processes are nothing less than heroes — M5 is here to help.

Today's dynamic workforce, climate change, increasing customer demands, new technologies, and continually aging infrastructure complicate every manager's role. Whether the utility is large or small, successful management requires more than single-subject expertise. This workshop has been developed to focus on the pulse of what is current and essential for today's utility managers to know. The presentations are from public and private utility executives, senior engineers, and seasoned management and financial consultants who have captured the water industry's best practices, methods, and overall strategies to help participating utility managers remain heroes in today's complex and ever-changing world.

Learning Objectives:
• Focus on the pulse of what is current and essential for today's utility managers to know using new case studies;
• Present the industry's best practices, methods, approaches and overall strategies for sustainable success;
• Get acquainted with the new AWWA M5 Manual - Water Utility Management, which was specifically designed for water and wastewater managers as a “Go-To” reference to help achieve their utility’s most critical objectives.

Workshop E: Workforce Development - Developing the Whole Person:  A Tactical View for Workforce Competency

Monday, February 21, 2022
1:30 p.m. - 5:00 p.m.

Nearly 1/3 of the U.S. Workforce is age 55 or older (30%), which means 47.7 million people will likely retire within the next 10-15 years. The loss of such a large section of the working population creates a significant gap in U.S. Industry, and requires immediate steps to ensure a well-trained and capable workforce is ready to fill the gap. This interactive workshop looks at the
current training and development approaches within the water and water reclamation utilities which seek to fill the gap of the departing workforce. Many utilities have begun developing training programs that address the 'Whole Person', and provide a holistic approach to competencies and skills development. The workshop activities takes an in-depth look at the organizational strategies, business requirements, and personnel needs that are required for effective employee progression, retention, and succession planning. These training programs support project management objectives, program administration, policy enforcement, effective coaching, mentoring, disciplining techniques, as well as effective writing, developing and presenting in front of small and large groups, and understanding and executing budgetary oversight. The workshop looks at the needs of the 'Whole Person' and explores training programs within the water sector that seek to meet these development needs. This workshop is the continuation of a workshop presented at WEFTEC 2021, called 'Workforce Development-Addressing the Whole Person - A Holistic Approach to Skills and Competency Development,' and this workshop focuses on the Tactical View for Competency Development.

Learning Objectives:

- Gain a better understanding of the meaning of “Technical and Leadership skills”;
- Discuss the concepts and attributes of a learning organization, one that supports a well-rounded workforce in all water and wastewater areas including field services, engineering, plant operations and maintenance, and construction management;
- Identify resources available to assist in developing a “holistic” training program that addresses staff needs and meets the needs of future progression within the organization;
- Identify programs that enable employees to gain increased knowledge and high-value skills without waiting for vacancies to create promotional opportunities.

Workshop F: Combining Traditional SCADA with Contemporary Analytics: Big Data Finally Yields Big Benefits

Monday, February 21, 2022
1:30 p.m. - 5:00 p.m.

SCADA datasets represent one of, if not the largest, inventory of existing data available to utilities. Millions of datapoints are available that tell the story of operations at utility facilities going back years. Furthermore, these datasets are usually of very high quality as the data has not been touched by human hands. These factors combine to create what is probably the best opportunity for the application of advanced analytics, artificial intelligence (AI) and machine learning (ML).

Traditional reporting and analysis tools provided by SCADA vendors have not kept pace for a number of reasons. Vendor, and more importantly the inability of such products to be leveraged outside of the SCADA environment (i.e., economies of scale) mean that such vendor tools will have difficulty keeping up with the capabilities of general-purpose systems. Advances in these general-purpose analytic tools, represented by products such as PowerBi and Tableau, have been game-changers. These tools can now be used to combine SCADA with other external data sources – i.e., weather – to create even more value. Their affordability,
feature set and ability to handle very large datasets presents utilities with a new opportunity – to finally get the most out of their biggest data set.

**Learning Objectives:**
- Achieve a better understanding of the tools and techniques needed using and manipulating large SCADA data sources for the purpose of analytics;
- Share lessons learned through the discussion of three recent utility analytics projects that used big SCADA data;
- Identify a number of your own key questions that might be answered by combining your SCADA data with contemporary business intelligence tools like PowerBI.

**Workshop G: A Practical and Concise Approach to Developing an Effective Strategic Asset Management Plan**

**Monday, February 21, 2022**
**1:30 p.m. - 5:00 p.m.**

Asset management continues to mature as a discipline that helps ensure our water industry optimizes the value of our assets. This is an especially critical area for such an asset intensive industry as ours, and a time when the optimization of our resources is so desperately needed. Effective Asset Management Programs require a sound and effective strategy to achieve budget optimization while providing high quality service. In many instances, strategy is postponed in favor of tactical work, but is necessary to sustain an effective asset management program. This workshop will walk the audience through the development of an effective (i.e., realistic and aligned with organization goals) strategic asset management plan (SAMP) and demonstrate the importance of this element to the success of asset management practices. Outcomes will include applicable examples crafted through an interactive learning experience, addressing how to build core components.

**Learning Objectives:**
- Understand the importance of strategy as a foundational element of asset management, and the importance of aligning asset management with your overall business strategy;
- Learn how leading utilities have developed and effectively applied their SAMP;
- Connect with peers and industry leaders through a hands-on strategy development experience, and learn how diverse teams tackle a complex problem;
- Learn how to apply practical maturity assessment tools, including ISO 55001, the Institute of Asset Management SAM+, Water Research Foundation SAM Gap, etc.;
- Walk through the design of an optimal asset program management function, which will fit your unique organizational goals.
Opening General Session
Tuesday, February 22, 2022
8:30 a.m. – 9:45 a.m.

More information about the opening general session is coming soon.
**Session 01: A Thin Line Between Diversity, Equity and Inclusion**

**Tuesday, February 22, 2022**
**10:30 a.m. – 12:00 p.m.**

**Moderator:** Donnell Duncan, Arcadis

**10:30 a.m.**  
*Equity in Water Infrastructure: People at the Center of Our Design and Effort*  
Steve Hamai, Seattle Public Utilities

**11:00 a.m.**  
*Developing an Inclusive Workforce Development Strategy*  
Lisa Stone, DC Water

**11:30 a.m.**  
*Panel Discussion*  
Steve Hamai, Seattle Public Utilities; Lisa Stone, DC Water; Donnell Duncan, Arcadis

*Some water and wastewater utilities have developed clear objectives for equity in their services. Others have committed to diversity and inclusion in their workforce. In this panel, we discuss the overlap between equity in the provision of services to diverse communities while promoting diversity and inclusion in our water workforce.*
Session 02: Data Management
Tuesday, February 22, 2022
10:30 a.m. - 12:00 p.m.

10:30 a.m. Are We There Yet? — Performance Measurement through Process Optimization, Collaboration, & Technology Integration
Aniruddha Guha, Jeanetta Williams, PWCSA; Aditya Ramamurthy, Janice Sloan, Kennedy/Jenks; Jillian Rosche, Irma Houck, PWCSA

11:00 a.m. A Collaborative Approach to Business Intelligence Software Selection
Ann Houseman; Lauren Chamblin, Clayton County Water Authority

11:30 a.m. The Long Road: CMMS Lessons Learned from a Former Town Manager
John Solomon, CH2M

Alternate Lessons Learned: Integrating 'Dirty Data' into Cartegraph
Abby Owens, City of Plano; Mazen Kawasmi, Freese & Nichols Inc; Stephen Johnson

Session 03: Strategic Planning
Tuesday, February 22, 2022
10:30 a.m. - 12:00 p.m.

10:30 a.m. Peer Scanning, Informative Interviews, and Design Thinking — Tactical Approaches for Leveraging Innovation
Zakiya Seymour; Michael Johnson; Jason Carter, Arcadis; Padraic Flannelly

11:00 a.m. Developing the Strategic Plan for the MWRD of Greater Chicago
Janine Witko, Arup Stokes; Vincent Lee; Audrey Fremier, Arup

11:30 a.m. Using Uncertainty to Drive Investments for Organizational Resiliency
Keith Tyson; Jason Carter, Arcadis; Todd Allen, WSSC Water; Yvonne Carney; Joanna Brunner

Alternate Adapting to Unexpected Changes: A Case Study in Successful Program Management in a Changing Environment
Jacob Mueller; David Saunders
Session 04: Environmental and Regulatory Issues  
Tuesday, February 22, 2022  
10:30 a.m. - 12:00 p.m.

10:30 a.m.  Pacing Reinvestment: Developing a Long-Term Collection System Rehabilitation Plan  
Alexander Palmatier, HDR Inc; Jacob Mueller

11:00 a.m.  Preparing for New Requirements of Lead Copper Rule Revisions  
Renee Lanza, Rob Little, Woodard & Curran

11:30 a.m.  Modular, Decentralized Wastewater Treatment: A Promising Solution in the Fight against “Day Zero” for the American Southwest and Beyond  
Ashutosh Sharma, Kenneth DaRos, Aquatech

Alternate  PFAS, The Challenge for Water/Wastewater Utilities  
Viraj deSilva Weerapperuma, Freese & Nichols

Session 05: Organizational Culture Change  
Tuesday, February 22, 2022  
1:30 p.m. - 3:00 p.m.

1:30 p.m.  From Words to Empowerment: Embrace the Power of a Promise  
Jamie Floer, Todd Swingle, Toho Water Authority

2:00 p.m.  From the Ground Up: A Case Study of the Importance of Organizational Culture Change to the Improvement of a Utility’s Capital Project Delivery Process  
Kerry Rubin, Alice Brawley-Chesworth, Steve Hansen, Portland Bureau of Environmental Services

2:30 p.m.  Grow Up! — Maturity Assessment to Direct Organizational Development  
Jacob Mueller

Alternate  KC Water's Capital Improvement Program Planning & Delivery Improvements - The Power of Business Process Modeling  
Scott Parker, Daniel Ott, Kansas City Water
**Session 06: Utility Leadership & Strategy Implementation I**  
Tuesday, February 22, 2022  
1:30 p.m. - 3:00 p.m.

1:30 p.m.  
Accelerate Critical Decisions through Real-Time Data Storytelling Fed by Data from more than 13 Disparate Data Sources via a Modern Utility-wide Data Warehouse  
Benjamin Cella, Teksouth Corporation; Charles Burtron

2:00 p.m.  
Tim Worley, Ortega Strategies Group; Suresh Radhakrishnan, Metropolitan Water District of Southern California; Alane Boyd, Desert Rose Environmental

2:30 p.m.  
Not Your Typical Rate Study: How a Mid-Sized Aging Utility Instilled Transformational Change to Overhaul Its Planning and Financing Strategies  
Sarah Stone, City of Englewood Utilities; Pieter Van Ry, South Platte Water Renewal Partners; Carol Malesky

Alternate  
Effective Utility Management and Strategic Foresight: The Case of Lake Cane, Florida  
Jerome Madigan; Matthew Klein, Aqualaurus Group, LLC; John 'Lucky' Meisenheimer, M.C., Lake Cane Restoration Society

**Session 07: Operations & Maintenance**  
Tuesday, February 22, 2022  
1:30 p.m. - 3:00 p.m.

1:30 p.m.  
The Dollars and Sense for Adopting Optimized O&M Processes: The Demonstrated Successes of Three Utilities  
Jay Boyd, ADS Environmental

2:00 p.m.  
Operational Strategies to Prepare the Wastewater Treatment Facilities for Extreme Weather Events  
Velmurugan Subramanian, Atkins

2:30 p.m.  
Implementing Cybersecurity and Network Improvements at Lowell Regional Wastewater Utility  
Tim Maynard, Woodard & Curran; Evan Walsh, City of Lowell, MA

Alternate  
Benchmarking Your Break Rates: How Do Water Main Break Rate Studies Compare to AI/Machine Learning Findings?  
Gregory Baird, Stantec Inc.
Session 08: Developing a Financing Strategy in Uncertain Times

Tuesday, February 22, 2022
1:30 p.m. – 5:00 p.m.

Moderator: Amy Jablonsky
Panelists: John Mastracchio; Dustin Lowndes, DC Water; Rosalind Bertolo, City of Dayton; Rachel Bradley, Arcadis

Whether we need to address underlying industry needs such as funding aging infrastructure, or other critical issues like water affordability, the need to develop an effective financial strategy is as relevant as ever before. This panel discussion will explore the building block of a sound financial strategy, bringing perspectives from both, a large and a mid-size water utility, as well as from industry practitioners that will be able to share traditional and emerging tools available to the industry.

A full detailed agenda for this session is coming soon.
Session 09: Planning for Utility Excellence through Workforce Management and Development
Tuesday, February 22, 2022
3:30 p.m. - 5:00 p.m.

3:30 p.m.  Closing the Knowledge Gap with Discover the Leader in Utilities (DLIU)
Jenelle Ostrowski, Megan Ross, Pinellas County Utilities

4:00 p.m.  Strategic Talent Management for Utilities in a Post-Pandemic World
David Eisenlohr, Jeffrey Rowe, Baker Tilly Municipal Advisors

4:30 p.m.  So, What Do YPs Want Anyway? Part 2 - Meeting the Needs of a Multi-Generational Workforce
Jihyon Im; Chelsea Boozer, Central Arkansas Water; Nicholas Rossi, Aquarion Water; Jaquice Boyd, Birmingham Water and Wastewater Board; Mark Theiler, Middlesex Water

Alternate Recruiting, Hiring, and Retaining Transitioning Military & Veterans
Jose Martinez; Gretchen Spaniol, San Diego County Water Authority; Don Jones, Cuyamaca College

Session 10: Communications and Public Interest
Tuesday, February 22, 2022
3:30 p.m. - 5:00 p.m.

3:30 p.m.  In March, OWASA’s Water Tastes Like Chlorine (And Other Community Survey Learnings)
Mary Tiger; Catherine Carter, Raftelis

4:00 p.m.  Communications, Outreach and Education to Meet Challenges and Create Opportunities in Lead Service Line Replacement Programs
Travis Thompson, Meg Trubee, Kathie Dudas, Denver Water

4:30 p.m.  Ethnographic Approach for a Watershed-Based Disadvantaged Community Initiative
Jeffrey Mosher, Rick Whetsel, Santa Ana Watershed Project Authority

Alternate The CCR — Transforming a Mandate Into a Masterpiece
Jennifer Frost, Charlotte Water; Samantha Villegas, APR, Raftelis
Session 11: Utility Innovation: Leadership and Evolution
Tuesday, February 22, 2022
3:30 p.m. - 5:00 p.m.

3:30 p.m.  Key Tactics for Executive Innovation Champions
Joanna Brunner; Jason Carter, Arcadis; Ed Means; Keith Tyson; Colin Chapman, Urban Utilities; Jeff Cochran

4:00 p.m.  An Innovation “Refresh” at DC Water: History, Drivers, and the Path Forward
Matt Ries, Robert Bornhofen, DC Water

4:30 p.m.  Rustbelt Innovation — A Tale of Two Programs
John Norton, Great Lakes Water Authority; Jeffrey Duke, Northeast Ohio Regional Sewer District

Alternate  Want to Strengthen Innovation? First, Break Down the Organizational Siloes
Robert Bornhofen, DC Water

Session 12: Diversity, Equity, and Inclusion in Workforce Pipelines
Wednesday, February 23, 2022
8:30 a.m. - 10:00 a.m.

8:30 a.m.  Meeting DEI Where It’s At: Innovative Outreach Approaches
Judith Ibarra-Bianchetta, Tetra Tech

9:00 a.m.  Jail-to-Job Pipeline Program
Myrna Lebron, Hillary Weber, Pinellas County Utilities

9:30 a.m.  Reboot Re-entry: Returning to a Technical Profession After a Career Detour
Karen Counes; Jennifer Harrison, CDM Smith

Alternate  Different Makes a Difference: Creating an Inclusive Work Environment for All
Carlos Estrella, Krista Wells, Atkins North America, Inc.
Session 13: Rate & Affordability Benchmarking from NYC to Capacity Fee Evolutions on the West Coast
Wednesday, February 23, 2022
8:30 a.m. - 10:00 a.m.

8:30 a.m. Understanding the ‘Why’ Behind Utility Rate Structures and Customer Affordability Programs
Deborah Kloeckner, Stantec; David Hyder; Erin Morey, New York City Department of Environmental Protection

9:00 a.m. Affordable Housing and Tiered Development Impact Fees: A Case Study
Ronald Wierenga, Erin Blue, Chris Storey, Clackamas Water Environment Services

9:30 a.m. Improving Capacity Charges through Sound Philosophy and Modern Statistics
Sophia Skoda, East Bay Municipal Utility District; Matthew Freiberg, William Zieburtz, Stantec; Benjamin Stewart

Alternate Coming Soon! A New Manual for System Development Charges!
Lawrence McCartney; Jennifer Ivey, Carollo Engineers

Session 14: Digital Transformation I
Wednesday, February 23, 2022
8:30 a.m. - 10:00 a.m.

8:30 a.m. Where Do We Go from Here? A Technology Master Plan for St. Paul Regional Water Services
Kathryn Jones, HDR; Bill Lloyd, HDR; Carol Kaszynski

9:00 a.m. The Foundational Role of GIS in Digital Water Transformation
Eric Bindler; Seth Johnstone

9:30 a.m. Beyond the “Cool” Factor: Why Managing Facilities and Vertical Assets using GIS and BIM Makes Business Sense
Seth Johnstone; Emily Champagne, Milwaukee Metropolitan Sewer District

Alternate Smart One Water — A New Paradigm for Integrated Water Management in the 21st Century
Celine Hyer, Arcadis; Sunil Sinha, Virginia Tech
Session 15: Asset Management: The Crucial Fundamentals
Wednesday, February 23, 2022
8:30 a.m. - 10:00 a.m.

8:30 a.m. Starting an Asset Management Program: Where to Begin?
Kevin Slaven, Arcadis; Kenneth Frazier, Beaufort Jasper Water and Sewer Authority

9:00 a.m. Aligning Service Levels and KPI’s as part of Creating an Effective Asset Management Plan for Your Sewer Mains
Celine Hyer, Arcadis

9:30 a.m. How an Asset Management Maturity Assessment Led to a New Strategic Plan
Kevin Slaven, Arcadis; Joseph Sloan, Evansville Water and Sewer Authority

Alternate Getting The Money That Your Utility Requires: Key Approaches for Forecasting Capital and O&M Needs
John Solomon, CH2M
Session 16: Leaning into Adaptive Challenges: Insights from Public Sector Leaders

Wednesday, February 23, 2022
10:30 a.m. – 12:00 p.m.

Moderators: Rick Warner, Warner & Associates; Ralph Exton, Suez Water Technologies & Solutions

Panelists: Eileen O’Neill, Water Principles LLC; Yvonne Forrest, Director Houston Water; Raye Marshall, City of Tallahassee, FL; Oluwele McFoy, Buffalo Sewer Authority; Kevin Shafer, Milwaukee MMSD

While concepts of adaptive challenges and adaptive leadership are not new, these management ideas come to mind when the events of the last 18 months and their impacts on the water sector are considered. During 2020 and 2021 the key role of water service providers in helping cities and society at large address both longstanding and more recently recognized challenges has certainly been evident. Addressing these needs will require new thinking, new approaches, and new partnerships.

Partnering for Impact (PFI) believes that compelling examples and ideas already exist and that these can, inform, encourage, and inspire our sector as this new normal of unprecedented change continues. Because of this, PFI’s Dr. Eileen O’Neill spent some of late spring and early Summer of 2021 in deep, frank, and structured individual conversations with a diverse group of public sector water CEOs listening to their personal, organizational and leadership stories. Each leader was interviewed using a semi-structured process with questions covering both organizational change and current priorities as well as their career journeys, key successes, individual motivations, and survival tips.

For the panel session, Dr. O’Neill will present an overview of the findings of this unique study and a panel of four utility CEOs will expand on lessons learned from their careers and roles in the context of leading through adaptive challenges.

A full detailed agenda for this session is coming soon.
Session 17: Shaping Rates Through Policies & Second Opinions  
Wednesday, February 23, 2022  
10:30 a.m. - 12:00 p.m.

10:30 a.m. Integrating Financial Policies into Long-Term Financial Planning  
Usha Sharma, Denver Water

11:00 a.m. Real Time Water Rate Policy  
Dan Hilyer; Andrew Leeds, Waggoner Engineering

11:30 a.m. Pain, With Gain: Independent Reviews to Challenge and Improve Utility Financial Outcomes  
Andrew Burnham, Stantec; Benjamin Stewart; Lisa Celaya, City of San Diego

Alternate Due Diligence - Establishing a Framework for Utility Acquisitions  
Jeffrey Dykstra, Stantec

Session 18: CIP Planning  
Wednesday, February 23, 2022  
10:30 a.m. - 12:00 p.m.

10:30 a.m. Integrating Project Recommendations from Competing Master Plans Under Limited Budgets  
Jane McLamarrah; Mikita Browning, City of Atlanta; Sharon Matthews, Stantec Consulting Services

11:00 a.m. Four Case Studies for WRF 4917 — Using Smart Water Networks for Manage Pressure and Flow for Reduction of Water Loss and Pipe Breaks  
John Abrera, Brown and Caldwell

11:30 a.m. Implementation of Intelligent Algorithms for Prioritization of Capital Improvements in Tulsa, OK  
Andrew Faulkner; David Garcia; James Brescol; Thomas Prag,

Alternate Developing a Dynamic Wastewater Master Plan Using Dashboard Technology  
James Hennessy; Phillip Sexton, North Charleston Sewer District
Session 19: Utility Collaboration & Regionalization
Wednesday, February 23, 2022
10:30 a.m. - 12:00 p.m.

10:30 a.m.  Denver One Water Plan — Setting the Stage for Broad Utility Collaboration
John Rehring, Inge Wiersema, Carollo Engineers; Jacquelin Reed; David Jula,
City and County of Denver; Ty Bereskie, Denver Water Dept

11:00 a.m.  Development of a Wastewater Surveillance Program to Protect Public
Health in Southeastern Michigan
Anil Gosine, Detroit Water and Sewerage Dept; John Norton, Great Lakes Water
Authority; Andrea Busch; Xavier Fonoll Almansa, Great Lakes Water Authority;
Anna Mehrotra, Water Environment Federation; John Sheets

11:30 a.m.  COVID in Wastewater: How Data from Sewer Assets Enhanced the UK's
Response to the Pandemic Threat and Enables Completely New Public
Health Services
Simon Spooner, Atkins

Alternate  Equitably Allocating the Cost of Providing Sanitary Services to an
Adjoining Municipality
Brian Bachmeier, P.E., City of Oakdale, Minnesota; Nicholas Dragisich,
Springsted Inc

Session 20: Alternative Storytelling 101: Partnering with Arts
Wednesday, February 23, 2022
1:30 p.m. - 3:00 p.m.

1:30 p.m.  The Art of Water - Partnering with the Arts Community to Tell your Story
Douglas Shackelford

2:00 p.m.  Framing Effects on Public Support for Rate Increases: Experimental
Evidence
Manny Teodoro

2:30 p.m.  It’s Not Water's Worth It — It's People are Worth It: An Exploration of the
Crisis in Miscommunication from the Water Industry and How We Fix It
Stephanie Corso, Rogue Water; Steven Drangsholt, Brown and Caldwell;
Chelsea Boozer, Central Arkansas Water; Stephen Sanders, SUNY Morrisville

Alternate  Effective Communication Happens at the Confluence of Art and Science:
Learn What ‘Just the Facts’ Lack
Stephanie Corso, Rogue Water; Arianne Shipley, Rogue Water
Session 21: Resilience: The Leadership Superpower We All Need
Wednesday, February 23, 2022
1:30 – 3:00 p.m.

Presenter: Alan Heymann, Peaceful Direction

Resilience is the ability to cope with the challenges, problems, and setbacks you face in life, and to become stronger because of them. Resilience is our ability to return to our natural state after absorbing a bunch of… stuff.

It's also a highly learnable skill. As utility leaders, our internal resilience is as important as the physical resilience we rely on to protect infrastructure from environmental challenges. We must model it for our teams to succeed.

Resilience relies on different skills and draws on various sources of help, including rational thinking skills, physical and emotional health and your relationships with those around you. We've all learned a lot about resilience during the pandemic, and this session builds on that learning to make it sustainable.

Former two-time DC Water executive Alan Heymann founded the utility's nonprofit Blue Drop arm in 2016. In his role as an executive and leadership coach, Alan works with leaders in utilities and other sectors to put their best selves forward. He brings techniques from his practice into this session.

A full detailed agenda for this session is coming soon.
Session 22: Business Transformation for Nimble CIP Planning  
Wednesday, February 23, 2022  
1:30 p.m. - 3:00 p.m.

1:30 p.m. Lessons Learned from a Performance Management Implementation  
Kevin Slaven, Arcadis; Brett Anderson

2:00 p.m. Back to the Basics: Establishing the Foundation for a Modern Capital PMO  
Daniel Scratchfield, Arcadis; Casey Hellriegel, Pinellas County Utilities Department

2:30 p.m. Utility Performance Improvement through Business Process Transformation  
Prabhushankar Chandrasekeran, Greeley & Hansen LLC; Torri Martin, City of Atlanta

Session 23: Alternate Project Delivery/PPP I  
Wednesday, February 23, 2022  
1:30 p.m. - 3:00 p.m.

1:30 p.m. Management Decisions for Making Multiple Collaborative Delivery Methods Part of Hillsborough County’s Strategy to Deliver the One Water Program  
Thomas Mamott, Cheryl Robitzsch, Jason Parrillo, Hillsborough County

2:00 p.m. Utilizing the Progressive Design Build Delivery Model to Meet City of St. Petersburg’s Consent Order Commitment for Wet Weather Flow  
JD Gillespie, Archer Western Construction; Scott Keddy, City of St. Petersburg; Christopher High, Wade Trim

2:30 p.m. Blue River Biosolids: Can Lump Sum Design-Build Be Progressive?  
Hannah Fodor, Carollo Engineers; Blake Anderson, KC Water

Alternate Effectively Engaging Stakeholders of a University Community’s New Water Treatment Plant Under Design-Build-Operate Contract  
Rob Little, Woodard & Curran
Session 24: Improving Customer Experience  
Wednesday, February 23, 2022  
3:30 p.m. - 5:00 p.m.

3:30 p.m.  Ready to be Rescued: How Utilities and Their Customers are Accessing Low Income Households Water Assistance Program Funds  
Joseph Crea; Henrietta Locklear, Raftelis Financial Consultants Inc; Danielle Giannantonio, Northeast Ohio Regional Sewer District

4:00 p.m.  City of Mesa Drives Expansion of a Customer First Strategy through a Smart Infrastructure initiative — Advanced Metering and Electric Outage Management.  
Janis Lusco, Arcadis; Candace Cannistraro, City of Mesa

4:30 p.m.  Seeing the Unseen: Using Interactive Mapping to Engage with the Public  
Marsha Miller, HDR

Alternate  Economic Analyses for the Water Industry — An Intermediate Class  
William Zieburtz, Stantec; Patrick Luce

Session 25: Get the Lead Out – Experiences Across the U.S.  
Wednesday, February 23, 2022  
3:30 – 5:00 p.m.

Moderator:  Meg Trubee, Denver Water
Panelists:  Tom Neltner, EDF; Marc Edwards, Virginia Tech Water Innovators Group; Chris Sturm, NJ Future; Verna Arnette; Alexis Woodrow, Denver Water

Lead is a public health scourge nationwide and cities are scrambling to address new requirements and keep their citizens safe. This panel highlights communities implementing service area-wide replacement programs, discusses equity considerations including strategies for engaging and communicating with local communities, and the types of financing and resources available to support communities. Panelists will also discuss how to ensure that well-meaning state laws and policies do not create barriers to solving problems at the local level.

A full detailed agenda for this session is coming soon.
Session 26: Utility Leadership and Strategy Implementation II  
Wednesday, February 23, 2022  
3:30 p.m. - 5:00 p.m.

3:30 p.m.  Becoming Utility of the Future - Journeys and Case Studies  
Prabhushankar Chandrasekeran, Greeley & Hansen LLC

4:00 p.m.  The North Miami Beach Utility Transition: Taking Back a Utility During a Pandemic  
Juan Oquendo, Nicole Cohen, Carollo Engineers; Jafeth Baez,; Samuel Zamacona, City of North Miami Beach

4:30 p.m.  Digital Resiliency Through Augmented and Mixed Reality  
Richard Newberg; Scott Aldridge

John Norton, Great Lakes Water Authority; Daehyun Ko; Glen Daigger, University of Michigan

Session 27: Asset Management: Tools and Technologies  
Wednesday, February 23, 2022  
3:30 p.m. - 5:00 p.m.

3:30 p.m.  Leveraging Business Intelligence from Legacy Data to Optimize Utility Operations and Decision Making  
Michael Hanley; Rishi Immanni; Louis Mammolette, City of Chelsea, Dept. of Public Works; Peter Garvey, Dewberry

4:00 p.m.  Denver Water’s Integrated Approach to Linear Asset Replacement Leveraging the Optimizer™ WMR Software Solution  
Ashley Hilliard, Optimatics; Jaclyn Gorman, Denver Water; Joshua Cantone, Optimatics

4:30 p.m.  Infrastructure Facility Master Plan—Innovative Approach to Asset Management  
Sean Pour, Hazen and Sawyer; Hansa Keswani, Hazen and Sawyer

Alternate  A Goldilocks Problem: Identifying Suitable Asset Management Tools for Mid-Size Utilities  
Bradley Hayes
Session 28: Strengthening and Diversifying the Water and Public Infrastructure Workforce: Identifying Opportunities for Next-Level Collaboration and Community Engagement

Thursday, February 24, 2022
8:30 – 10:00 a.m.

Moderator: Drew Lehman, Environment & Education

Water industry and other public infrastructure employers nationwide are seeking to develop and grow a new generation of diverse and talented workers as they simultaneously grapple with the loss of many older workers to retirement. Professional societies and member associations can play a critical coordinating role to help their members develop and implement a financially sustainable workforce development and succession-planning model that introduces the next generation to the broad spectrum of careers within their respective fields.

This panel session presents the learnings from a model program piloted during the American Geophysical Union's (hybrid) Annual Fall '21 Meeting in New Orleans. This program piloted a new approach to the engagement of professional societies with people in the cities that host their annual meetings.

A full detailed agenda for this session is coming soon.
Session 29: Resilience
Thursday, February 24, 2022
8:30 a.m. - 10:00 a.m.

8:30 a.m.  Regional Resiliency Among Neighboring Water Districts
Renee Lanza, Woodard & Curran; Paul Ferland, City of Fall River

9:00 a.m.  Real-Time Storm Water Management Keeps Pace with Mother Nature
Glen Hill, SmartCover; Tommy Strowd; Greg Quist, SmartCover

9:30 a.m.  How the City of Miami is Using Technology to Help Plan for Management of Urban Flooding in the Face of Sea Level Rise
Jayson Brennen, CDM Smith; Michael Schmidt, CDM Smith; Christopher Bennett, City of Miami

Alternate  When it Rains, it Pours: Organizational Learning in the Face of More Extreme Precipitation
John Phillips, Parametrix

Session 30: Innovations in Resiliency Funding
Thursday, February 24, 2022
8:30 a.m. - 10:00 a.m.

8:30 a.m.  It's About Time: Recent Developments to Close the Stormwater Funding Gap, Including Innovative Stormwater Financing Approaches
Ellen Tarquinio; Fernando Pasquel; Tara Johnson, EPA; Robert Ryall

9:00 a.m.  Increasing the Effectiveness of BRIC Grant Applications: Lessons Learned
Sheryl Chino, Roger Null, HDR Engineering Inc

9:30 a.m.  Cincinnati MSD’s Strategic Pathway to Build Wet Weather Resiliency While Enhancing Affordable Cost Recovery
Pamela Lemoine, Black & Veatch; Marylynn Lodor, Metropolitan Sewer District of Greater Cincinnati; Prabha Kumar

Alternate  Potential Cost of Service Implications Resulting From the Pandemic
Michael Borchers
Session 31: Digital Transformation II
Thursday, February 24, 2022
8:30 a.m. - 10:00 a.m.

8:30 a.m. Technology Strategy, Smart SCADA, and AI-Based Analytics Implementation at City of Chino, CA
Tori Yokoyama, Benjamin Stanford, Hazen and Sawyer; Amanda Coker, City of Chino

9:00 a.m. Making Digital Twins a Reality - Waste Water Case Study
David Ogden

9:30 a.m. Integrating “Large Data” into a Distribution System Digital Twin Model
Charlie Stevens, Melanie Jollett, KC Water; James Maher, Black & Veatch; Ashton Rohrich, KC Water

Alternate The First Fruits of the Metropolitan Utilities District's Digital Transformation
Derek Gardels, HDR; Masa Niiva, MUD; Scott Humphrey, HDR; Jared Svagera

Session 32: Lessons from Working with Digital Twins
Thursday, February 24, 2022
10:30 a.m. – 12:00 p.m.

Moderator: James Cooper, Arcadis
Presenters: Christopher Miller, Fontus Blue; Chris Basford, Newport News Waterworks

The water sector is in the midst of a digital transformation. A growing number of utility leaders across all sizes of systems are finding that you can achieve more, positively impact natural resources, and improve financial stability through incorporation of intelligent water. With increasing case studies illustrating the significant return on investment the technology can provide, utilities are increasingly considering and adopting, at least in some part, digital solutions to their address their challenges and achieve their priorities. The pandemic catalyzed this change as utilities were forced to find innovative and transformative approaches, resulting in rapid deployment of new technologies and meaningful business process improvements.

One of the topics with rapidly growing interest is digital twins. While the concept of digital twins is not new, the application and adoption of digital twins in the water sector is only beginning and will continue to evolve and play an integral long-term role in water utilities’ planning, engineering, modeling, design, and operations.

A full detailed agenda for this session is coming soon.
Session 33: Alternate Project Delivery/PPP II
Thursday, February 24, 2022
10:30 a.m. - 12:00 p.m.

10:30 a.m.  Can You Hear Me Now? — Effective Technology Adoption & Stakeholder Engagement in the Delivery of a Complex Alternative Delivery Program
Mark Minkowski; Teresa Herrera, Silicon Valley Clean Water; Ken Pilkins, Nexinite

11:00 a.m.  Leveraging Alternative Delivery and Innovative Funding to Achieve the City of Memphis’s Vision — Process Upgrades at the T.E. Maxson WWTF
Scott Morgan, City of Memphis; Yaribell Hernandez, Zack Daniel, CDM Smith

11:30 a.m.  Yadkin Regional Water Supply Project — Water Treatment Plant Design Development for Union County’s Future Needs
John Shutak; Jonathan Lapsley, CDM Smith

Alternate  City Of Camden, NJ/American Water Public Private Partnership: Implementing Creative Cooperation
Jim Hopkins, Buchart Horn, Inc.

Session 34: Closing the Gap — Valuable Approaches to Risk Management and Continuity Planning
Thursday, February 24, 2022
10:30 a.m. - 12:00 p.m.

10:30 a.m.  How Enterprise Risk Management (ERM) Can Enable Strategy and Performance
Francis Cooper; Helen Hagos

11:00 a.m.  Do Not Let a Crisis Go to Waste: Leveraging Industry Momentum to Address Integrated Risk Management
Esteban Azagra; Norman Ashton

11:30 a.m.  Utility Resiliency Starts with an Engaging Business Continuity Planning Approach
Maria Aviles, Michael Sweeney, Chris Wilson, Michael Gibbs, Toho Water Authority; Duane Lohn, Risk Solutions International

Alternate  Winter Storm Uri Shows Us Why Investing in Risk and Emergency Planning Goes Beyond Checking the Box for Compliance Requirements
Trey Shanks; Nadia Mata
**Session 35: Successfully Funding Resilience**  
**Thursday, February 24, 2022**  
**10:30 a.m. – 12:00 p.m.**

**Moderator:** Linda Warren, Launch! Consulting  
**Panelists:** Kevin Morley; David Goldbloom-Helzner

There are billions of dollars in existing FEMA funding that utilities are not applying for or have not yet leveraged successfully. This panel discussion provides the details on how to change that. Water and wastewater utilities of any size can leverage the results of their risk and resilience assessment (RRA) to provide winning applications through their state funding agency (typically the Office of Emergency Management). This panel will detail FEMA's Building Resilient Infrastructure Communities (BRIC) funding program with a presenter from the program, discuss related programs and funding supported by EPA with a speaker from EPA, hear from Kevin Morley at AWWA about the array of funding available and the opportunity for utilities to utilize the RRA requirements and results to build a business case for funding mitigation measures identified in the RRA, learn first-hand from a state funding representative about what they are looking for in applications, and hear from a few utilities who were already awarded funding (and consultants who wrote successful grants). Linda Warren, Chair of the AWWA Emergency Preparedness and Security Committee, will facilitate the panel discussion and ensure an interactive session that will also answer questions from the audience.

*A full detailed agenda for this session is coming soon.*