Wednesday, October 29								
General Session, 10:45 - 11:45 am								
Session Title	**Session Description**	**Present Name/Title/Company**	**Presenter Bio**	**Present Name/Title/Company**	**Presenter Bio**	**Learning Objective 1**	**Learning Objective 2**	**Learning Objective 3**
From Hype to Impact: How AI is Transforming Water Utilities	Artificial Intelligence is reshaping the water sector at a pace few could have imagined just a few years ago. From predictive analytics to real-time monitoring, AI is unlocking new ways to improve efficiency, strengthen compliance, and build resilience against future challenges. But with the rapid growth of new technologies, many utilities are left asking: What role will AI play in our future? And just as importantly, how can we separate practical opportunities from passing hype? This interactive workshop will explore how utilities are already applying AI tools to optimize operations, reduce costs, and meet regulatory demands—while also preparing for emerging applications that are just around the corner. Whether you're curious about machine learning for leak detection, natural language processing for compliance reporting, or broader applications for decision support, this session will provide a grounded look at how utilities can take advantage of the wave of technologies coming down the pipe.	Patrick Dube, PhD, Senior Technology Consultant Isle Utilities		Jim Fichett, Voda.ai		Participants will gain insight into the current state of AI in the water sector	Learn from examples of successful implementations	Discuss practical strategies for piloting and scaling AI solutions within their own organizations.
Keynote Address, 12:30 - 1:15 pm								
Session Title	**Session Description**		**Presenter Bio**			**Learning Objectives**		
Hand over Fist: Innovation in Finance, Capital Investments and Operations Overcoming Extreme Weather, Aging Systems, New Contaminants and a Retiring Workforce	In this session, Mr. Hawkin will share a variety of his own personal experiences working across different water systems. It will explore the challenges and soluntions used to overcome adversities.		George Hawkins is the founder and CEO of Moonshot Missions. He was the General Manager of DC Water, where he served for eleven years, including several as a Board member. During his tenure, he became well known across the water sector for transforming DC Water into an innovative, customer-driven enterprise, while tripling its investment in clean water. DC Water's innovations ranged from award winning Green Infrastructure and a $500 million investment in clean energy, to creative social media campaigns and patents for new treatment technologies that require less energy and chemicals but achieve better results. DC Water issued the nation's first century bond, world's first environmental impact bond, and spearheaded programs to support low-income customers and provide meaningful job opportunities for District residents.					
Workshop Session, 3:00 pm - 4:00 pm Track A: Sustainable Future for Warter		.						
Session Title	**Session Description**	**Present Name/Title/Company**	**Presenter Biography**	**Present Name/Title/Company**	**Presenter Biography**	**Learning Object 1**	**Learning Objective 2**	**Learning Objective 3**
Water 2050: Charting a Course for a Sustainable Water Future	Over the past few years, the American Water Works Association (AWWA) has been working on an initiative, namely, Water 2050, to envision the future of water and to chart a course toward a sustainable and equitable future for local and global communities. The Water 2050 team had put together a series of think tanks on sustainability, technology, economics, governance, and social/demographic drivers. These think tanks were put together to help AWWA gain a better understanding of the various trends, drivers, and issues that would shape the future of water. This paper will present the findings for the think tanks. In addition, we will discuss the next phase of the effort, i.e., on the basis of the recommendations from the think tanks, five strategic implementation teams have been formed to advance Water 2050 efforts on: 1. Innovation and Circular Economy, 2. Finance and Affordability, 3. One Water Governance and Policy, 4. Sustainability and Resilience, and 5. Equity, Access and Community Engagement.	Chi Ho Sham, Independent Consultant	Dr. Chi Ho Sham is an independent consultant working on drinking water and source water protection, water quality assessment, watershed management, underground injection control, and natural resources management issues for four decades. He volunteers and has volunteered for many organizations including the AWWA, Water Research Foundation, and NEWEA. Chi Ho holds a B.A. from the University of Regina in Canada and a M.A. and Ph.D. from the University at Buffalo.			Envision a world of 2050 with sustainable water future	Understand the drivers of water's future	Establishing a long-term vision of water's future
Future-Proofing Small Water Systems: Strategic Master Planning for Growth and Regulatory Change	The Town of Maynard supplies 1.3 MGD of drinking water from three water treatment plants managed by minimal staff on a lean budget. The Town faces growing concerns regarding water quality and quantity which are exacerbated by population growth within the Town and surrounding areas. Development near the Old Marlboro Road plant caused ecological changes to the watershed that changed the raw water quality in the system, specifically causing problems with disinfection byproducts above and beyond the preexisting issues related to color, iron, manganese, arsenic, and sodium. The wells at this plant are run at a low flow rate to improve the influent water quality. The Rockland Avenue water treatment plant requires reduction of total dissolved solids, color, iron and manganese. Well #3 at Rockland Avenue experiences rapid fluctuations in iron and manganese concentrations, requiring the plant to operate at low flows to stabilize influent constituent concentrations. In addition to the challenges related to DBPs, iron, and manganese, all raw water sources exhibit elevated levels of PFAS. Due to limited resources, the Town has been responding to water system challenges reactively, resulting in short-term fixes that will quickly be outpaced by development. The solution is to develop a Master Plan to address the water system needs on a 50-year planning horizon. The Master Plan defines the water quantity required for the projected Town growth (residential and otherwise) and the water quality issues that must be addressed. It further three alternatives to meet future water quality and quantity goals: 1) full long-term reliance on local sources of water, 2) short-term reliance on local sources of water with long-term reliance on expanded MWRA supply, and 3) short-term reliance on local sources of water with partial long-term reliance on MWRA supply. Local source development considers new well sources at existing treatment plants to increase capacity as well as reestablishment of a White Pond as a surface water source. Required treatment upgrades are evaluated	Maysoon Sharif, Senior Project Manager Stantec	Maysoon Sharif is a Senior Project Manager at Stantec in the Water group of their Burlington, MA office. She has extensive experience in the design of sustainable water treatment systems for small communities. Today she is supporting municipalities in Massachusetts and throughout the US with PFAS treatment for their drinking water supplies.			Planning for infrastructure upgrades with a view to 50-year regulatory and growth requirements allows for strategic planning instead of reactive response.		

Prioritizing Water Infrastructure with Artificial Intelligence	This presentation explores how AI/ML empowers utilities to predict water main failures more accurately. Attendees will learn how data-driven models, using factors like past breaks, soil, and weather, can reduce costly misallocations and improve service. The session highlights practical applications for leak detection, resource targeting, and maximizing capital efficiency.	Chuck Krohg, Director of Sales Voda.ai	Chuck graduated from Penn State with a degree in Mechanical Engineering and began his career in the mechanical HVAC and plumbing industry. He then joined the water utility industry with a manufacturer focused on using technology and products to reduce non-revenue water. Now with Voda, Chuck brings a wide array of experience in smart water and other digital solutions for the water industry, including AMI, machine learning, asset management and valves and hydrants.			Describe how AI/ML can predict failures and aid in leak detection	Identify key challenges in water main management	Recognize the benefits of AI/ML tools for utilities
Workshop Session, 3:00 pm - 4:00 pm Track B: Advanced Innovative Tools to Address Utility Needs (Part 1)								
Session Title	**Session Description**	**Present Name/Title/Company**	**Presenter Biography**	**Present Name/Title/Company**	**Presenter Biography**	**Learning Object 1**	**Learning Objective 2**	**Learning Objective 3**
Scaling Digitization and Unlocking Value: Leveraging Predictive Modeling for Enhanced Water Utility Asset Management	In an era of increasing water scarcity and aging infrastructure, effective asset management is paramount for water utilities. This presentation explores the transformative potential of predictive modeling in scaling digitization efforts and unlocking substantial value for water utilities. By harnessing historical data, operational parameters, and advanced analytics, predictive models can be used to fill the gaps in data and accurately forecast asset condition, failure risks, and optimal maintenance schedules. This empowers utility personnel with data-driven insights to proactively address potential issues, optimize resource allocation, and extend asset lifespan. Implementing machine learning technology enables utilities to transition from reactive to proactive maintenance strategies, minimizing service disruptions, reducing operational costs, and improving overall system efficiency. Furthermore, predictive modeling facilitates informed decision-making regarding capital investments, ensuring that limited resources are strategically allocated for maximum impact. By scaling digitization through predictive modeling, water utilities can not only enhance operational performance but also ensure the long-term sustainability and resilience of critical water infrastructure, ultimately empowering communities with reliable and safe water services.	Keith Hodsden, VP Sales Trinn	Keith Hodsden is the Vice President of Sales at Trinnex, with over 25 years of experience in the water/wastewater industry. He has a BS degree in Civil Engineering from Worcester Polytechnic Institute, a MS degree in Civil Engineering from the University of Oklahoma and serves as an officer in the Vermont Air National Guard. He is a licensed Professional Engineer in the State of Florida.			Unlocking Value: By optimizing maintenance, reducing costs, and improving efficiency	Empowering People: By providing utility personnel with data-driven insights for proactive decision-making	Implementing Innovation: Through the adoption of advanced predictive modeling techniques
Communicating Investment Needs to Stakeholders with GIS and BI Tools	Asset Management Plans (AMP) are widely regarded as the de facto standard to document the state of the infrastructure, performance targets, investment needs and life cycle strategies that can be challenging to communicate within the scope of the plan alone. In this graphical presentation we will use examples from communities across the country to demonstrate how interactive visuals generated in GIS and BI tools can be utilized to communicate water infrastructure investment needs using life cycle planning data. Examples that we will present include: How communities can strategically reduce the number of water main breaks to target levels within a multi-year financial plan within available resources; How a water authority saved millions of dollars by using life cycle planning to revamp their water meter replacement program; Visualizing how risk can be utilized to determine the life cycle funding needs for a small water treatment plant; Illustrating how a community can use life cycle planning to form a strategy that prioritizes the replacement of inferior pipe materials in favor of longer lasting materials within current budget constraints; The presentation will move quickly away from introductory PowerPoint slides to a live demonstration that focuses mainly on interactive business intelligence tools that in some cases include GIS data to aid in the visualization and stakeholder interaction. The tool that will be used is Power BI, but the presentation will keep the focus on the visualizations and interactions that can be delivered with any BI tool on the market today.	Rod Lovely, Independent Asset Management Consultant WithersRavenel	Rod, a civil engineer with over 40 years of experience, started his career in New England designing water, storm, sewer and road solutions for municipal and private clients. About 25 years ago, he shifted to delivering asset management solutions across the US and Canada. Now, with WithersRavenel, he helps organizations improve their asset management practice through life cycle planning and business intelligence tools.	Craig Roach, Strategic Account Executive, Innovation WithersRavenel	Craig helps cities and towns get the most out of their infrastructure budgets. With over 10 years of experience working with local governments and utilities, he uses data to guide smart decisions about repairs, upgrades, and long-term planning. As a Strategic Account Executive at WithersRavenel and a certified asset management professional, Craig is focused on helping communities build strong, lasting public systems.	Understand the benefit of Interactive Visualizations in Asset Management Communication	Apply Life Cycle Planning Techniques to Real-World Infrastructure Challenges	Evaluate Cost-Saving and Strategic Investment Opportunities Using AMP Tools

3D and BIM Modeling Found	Modeling is a valuable and necessary tool for communicating with stakeholders. Understanding the building blocks of modeling will create a base knowledge to make acquiring professional level modeling skills a reality. STV has prepared submissions for the NYC Public Design Commission. These submissions are made in the design phase. This is a great time to begin planning for a future use of a model. Per their website; The Public Design Commission has jurisdiction over permanent structures, landscape architecture, and art proposed on or over City-owned property. The mission of the PDC is to advocate for innovative, sustainable, and equitable design of public spaces and civic structures, with a goal of improving the public realm and therefore related services for all New Yorkers throughout the five boroughs. When reviewing proposals, the Commission considers a diverse range of design parameters, including the unique history and context of the site and surrounding area, the durability and resiliency of the materials, the maintainability of the design, the appropriateness of the design in terms of how it will facilitate the desired functions and programs, and how the design can best serve the public. The scope of our STV project was electrical improvements at various wastewater treatement facilities. Extracting the steps to construct a model for a Public Design Commission submission can assist with identifying the building blocks of modeling.	Jamena Grant, Permit Manager STV Inc.	Ms. Grant is experienced in project and construction management, inspection coordination, permit management, and design reporting. She has worked on water and wastewater projects for the NYC Department of Environmental Protection, including treatment plant electrical improvements, water main inspections, and tunnel construction. Her technical skills include Rhino, Revit, AutoCAD, and P6.			Fundamental steps to construct a model	The different modeling program options	Goal of concept & design phase modeling
Thursday, October 30								
General Session								
Session Title	**Session Description**	**Present Name/Title/Company**	**Presenter Biography**	**Present Name/Title/Company**	**Presenter Biography**	**Learning Object 1**	**Learning Objective 2**	**Learning Objective 3**
General Session & George Warren Fuller Award	Updates on key initiatives within AWWA for 2025 and a look ahead to 2026 & beyond. NE-AWWA will announce its 2025 George Warren Fuller Award Winner.	Reid Campbell						
Workshop Session 10:30 am - 12:30 pm	**Track A: Innovative Water System Design & Infastructure**							
Session Title	**Session Description**	**Present Name/Title/Company**	**Presenter Biography**	**Present Name/Title/Company**	**Presenter Biography**	**Learning Object 1**	**Learning Objective 2**	**Learning Objective 3**
Avoiding Major Disruption within Boston Common through Pipe Lining Technology	This presentation details the unique design and construction considerations for an innovative close fit HDPE lining system constructed by the Boston and Water Sewer Commission within a 48-inch dia. welded steel water main in the Boston Common, Americaâ€™s oldest public park. This water main was a priority for rehabilitation and the Commission selected trenchless technology to avoid complex permitting and reduce impacts within the heavily traveled Beacon Street Mall in the Boston Common.	Michael Cumming, Senior Principal Engineer Kleinfelder	Mr. Cunningham has 27 years of civil engineering consulting experience with a focus in water resources engineering. Mr. Cunninghamâ€™s experience in the drinking water field includes modeling, design, permitting, and construction of water distribution, storage, pumping, and treatment systems. Projects include water system analysis and planning; office and field services for over 40-miles of water main upgrades; water storage facility design; well rehabilitation; and pump stations.	Jeremiah Waite, Project Enginerr Boston Water & Sewer Commission	Mr. Waite has 6 years of experience in the civil engineering field, including both design/consulting work as well as utility construction management. In his role as project engineer at BWSC, he has overseen the successful replacement and rehabilitation of water mains, sanitary sewers, and stormwater drainage infrastructure throughout many historic areas of Boston.	Strategies for successful lining implementation during construction	Considerations for close fit HDPE lining design;	Benefits to project schedule and impacts
Optimizing Clearwell Efficiency through CFD Modeling	The Lake Konomoc Water Treatment Plant (LKWTP) is a 12 million-gallons-per-day (MGD) conventional water treatment plant (WTP). The facility was originally a pump station delivering water from Lake Konomoc built in 1960. The existing chlorine contract clearwell is largely an open main chamber with no internal baffling and a long effluent channel. Current chlorine monitoring and CT calculations were reviewed to determine compliance with state and federal requirements. CT calculations currently assume contact time within the LKWTP as well as dual 24-inch finished water pipelines exiting the plant. It was determined that compliance at the wetwell effluent without the finished water pipelines would not be possible with the existing baffling factor at the plant’s rated 12 MGD capacity. The goals of this work were (1) assess the mixing performance of the existing clearwell; and (2) design and evaluate baffling alternatives to improve the contact time and baffle factor. The clearwell performance was simulated with computational fluid dynamics (CFD) modelling. This type of modeling constructs a full-scale, three-dimensional model of the existing clearwell and solves the three-dimensional Navier-Stokes equations to determine the movement of the flow within the clearwell. For the existing tank, the baffling factor within the main chamber of the tank and at the exit of the tank was calculated. The large, unbaffled main chamber showed very poor mixing, high amounts of shirt-circuiting, and resulted in an unbaffled baffle factor. The addition of the long effluent channel brought the baffle factor up to a poor baffle factor. This baffle factor was not high enough to meet compliance at the wetwell effluent. The main chamber was the focus of efforts to improve the baffling factor for the clearwell. Given the large volume of the main chamber and the inlet configuration, serpentine walls were considered. Serpentine configurations were limited by the tank’s existing structural supports, limited	Heather Smith, Principal Engineer Arcadis	Dr. Heather Smith is Principal Engineer at Arcadis with 17 years of experience in water resources engineering. She has substantial capabilities in advanced hydraulic modelling and specializes in computational fluid dynamics (CFD) modeling models in water resources and coastal engineering applications. Dr. Smith earned her doctorate in Civil Engineering from the Ohio State University. She is a registered Professional Engineer in the state of Louisiana.			Learn about CFD modeling and its usage	Identify the conditions that result in poor mixing	Identify mixing improvements due to different configurations

Computational Fluid Dynamics Modeling and Field Tracer Testing to Determine the Baffling Factor for a New Baffled Clearwell in Aliquippa, PA	The Municipal Water Authority of Aliquippa, PA (MWAA) constructed a 0.467 million-gallon (MG) baffled water storage tank to serve as a clearwell for their new water treatment plant. Disinfection is part of the MWAA treatment process. Since baffling increases the travel time through a tank, the result is an increase in the effectiveness of the disinfection process. This is measured by the "CT" value, which is the disinfectant (chlorine residual) concentration "C" multiplied by the contact time "T" during which the disinfectant is in contact with the water. To keep chlorine concentrations at acceptable levels, thereby reducing taste, odor, and disinfection by-product issues, it is desirable to increase contact time to promote higher CT values. Tank baffling is an effective strategy to achieve this goal. To optimize the tank design and baffle configurations for achieving a minimum Target Baffling Factor of 0.5, Dewberry conducted three-dimensional (3D) computational fluid dynamics (CFD) modeling of the tank using FLOW-3D CFD software developed by Flow Science, Inc. Three baffling configurations were evaluated using CFD model. To validate CFD predictions and determine actual performance of the constructed well, Dewberry also designed and conducted a full-scale field tracer study in accordance with procedures approved by the Pennsylvania Department of Environmental Protection (PennDEP). The field program includes careful tracer selection, initial calculations and equipment selection. This presentation will provide an overview of both modeling and field work, highlighting design optimization, modeling methodology, test planning, field execution, and data analysis. Field challenges, problems encountered, testing results, lessons learned and the comparison of modeled versus measured performance will be discussed, offering a comprehensive understanding of	Louis Mammolette, Water Dept Manager - Boston Office Dewberry Engineers, Inc.	Lou is a Senior Associate, MA PE and holds a Bachelor's/Master's Degree in Civil Engineering from UMass–Lowell. Lou has 35+ years experience in drinking water, stormwater, and wastewater infrastructure / treatment across the consulting, construction, and municipal / public sectors. This includes five years for a utility contractor as a Cost Estimator, PM, and Superintendent; three years as GM of the Georgetown Water Department; and six years as City Engineer / Deputy DPW Commissioner in Chelsea.	David Bedoya, Northeaster Water Market Segment Leader Dewberry Engineers, Inc	David Bedoya is a Senior Associate with Dewberry. He's a MA PE and serves as a national subject matter expert in hydraulics in Dewberry's Water market sector. David has 25+ years of experience in the areas of stormwater, wastewater, and drinking water infrastructure. He holds a Ph.D in Civil & Environmental Engineering from Northeastern University.	How CFD helps determine theoretical baffling factors	How to develop testing procedures for field tracer studies	How to interpret field results and avoid issues from our lessons learned
Workshop Session 10:30 am - 12:30 pm Track B: Drinking Water Policy Regulations: Innovative Approaches to Improve Water Quality and Meet Compliance (Part 1)								
Session Title	**Session Description**	**Present Name/Title/Company**	**Presenter Biography**	**Present Name/Title/Company**	**Presenter Biography**	**Learning Objective 1**	**Learning Objective 2**	**Learning Objective 3**
Federally Funded Projects – What a compliance nightmare!	Securing the funding is only half the challenge. Managing project subject to federal funding requirements involves adhering to compliance requirements including specific guidelines, regulations, and reporting requirements set forth by the funding agency. For example, water and wastewater infrastructure projects utilizing federal funding are subject to the American Iron and Steel (AIS) requirement requiring the use of American-made iron and steel products and applies to both the materials themselves and the products made from those materials. In addition to the AIS requirement, the Build America, Buy America (BABA) requirement applies to projects financed by the IIJA. By understanding the complex compliance requirements, recipients can maximize the effectiveness of federal funding. In this presentation, we will discuss how to develop and monitoring compliance throughout the project lifecycle.	Adam Rector, Accenture	Adam Rector has over twelve years of experience working on large program management projects for public utility agencies. He has extensive knowledge in project management, program staff planning, and forecasting along with contract modification preparation, program master scheduling preparation, RFP pricing and negotiations, cost estimating, change order preparation, warranty tracking, as well as project inspections and site investigations. Adam has an exemplary track record of success in regulatory compliance, quality control, and project management.	Phillip Boss, Accenture	Phillip Boss has over 29 years of experience in the construction industry primarily focused on water and wastewater treatment, government, and transportation construction projects with an emphasis on new construction and renovation. He has extensive knowledge of project management of vertical and horizontal heavy civil construction, road rehabilitation, sub-grade analysis and remediation. Mr. Boss also has extensive project experience whether it is completing electrical and instrumentation upgrades to increasing plant capacity.	Understand the key federal funding programs	Identify the specific compliance requirements	Gain strategies for maximizing the effectiveness of federal funding.
Improving Water Supply Resilience While Addressing PFAS Compliance, Town of Hamilton, MA	Dewberry Engineers Inc. will present their work in designing and constructing the most cost-effective treatment approach to reduce the formation of Total Trihalomethanes (TTHMs) at the Hamilton, MA Idlewood Water Treatment Plant (WTP) for compliance with the Stage 2 Disinfection By-Products (DBP) Rule. This presentation also focuses on meeting future drinking water standards including PFAS. Several treatment strategies were evaluated including granular activated carbon, ion exchange resin (MIEX) and TTHM aeration removal. Attendees will learn how the treatment strategy was streamlined and easily integrated with existing WTP operations with minimal impact to Hamilton's sole water supply. The Town of Hamilton, roughly 25 miles north of Boston, is a small system located in the Cape Ann region of Massachusetts serving approximately 8,000 people. Their primary source of water supply is the Idlewood Wellfield, which consists of 5 individual gravel-packed wells. The wells are combined and treated for iron and manganese removal at the Idlewood WTP located at the wellfield site. The WTP was originally designed (by others) and constructed in 2000 based on a proprietary filter media for removing iron and manganese. After several years of operation, the water system began to experience elevated levels of TTHMs along with losing production capacity. To address the noted increase in TTHMs within the distribution system, Hamilton converted the existing filters to greensand media in 2010 – using potassium permanganate as the pre-oxidant as opposed to sodium hypochlorite. However, upon completing the conversion, the filters had to be operated at less than half their rated capacity, with backwash production almost doubling. Unfortunately, high TTHMs still persisted. In 2016, Dewberry was retained to initially evaluate the on-going filtration and	Peter Calderazzo, Senior Project Manager Dewberry Engineers, Inc.	Peter Calderazzo has 35+ years of experience in the study, permitting, design and construction of all types of water resources infrastructure including supply, treatment, storage, transmission, distribution, pumping, hydraulic analysis, and modeling. Peter has worked in many New England communities and extensively with the Massachusetts Water Resources Authority. He holds PE registration in MA, CT, RI & NY; and a Bachelor of Science in Civil Engineering from Wentworth Institute of Technology.			How various treatment alternatives were evaluated.	How to integrate GAC treatment with iron / manganese removal treatment processes.	How to interpret field results and avoid issues from our lessons learned.
Alternative In-Situ Solution for PFAS in Drinking Water Aquifers	PFAS treatment in drinking water can cost millions of dollars. The uncertainty in regulations and technologies for PFAS is high. An alternate involves identification of PFAS pathways in the aquifer, injection of activated carbon in these pathways to adsorb the PFAS. The process is flexible and can provide a permanent or temporary solution. For two New England aquifers, costs savings are 80 percent on capital and 100 percent on O&M.	Michael Marley, Technical Director Loureiro Engineering Associates, Inc.	Michael C. Marley, Technical Director. He is a nationally known expert who focuses on strategies for site closure, including the development and application of innovative remediation technologies for contaminated soils and ground water.	David Payne, PE, LEP, Director Lourerio Engineering Associates, Inc	Dave Payne, P.E., L.E.P., is the Director of the Environmental Engineering Division in Connecticut at Loureiro Engineering Associates, Inc. His areas of specialization include environmental investigation, site remediation (soil, sediment, soil vapor and groundwater), and permitting.	Alternative cost-effective solution	In-situ PFAS treatment for drinking water	PFAS uncertainty in regulatory and treatment options
General Session 12:00 - 1:30 pm								
Session Title	**Session Description**	**Present Name/Title/Company**	**Presenter Biography**	**Present Name/Title/Company**	**Presenter Biography**	**Learning Objective 1**	**Learning Objective 2**	**Learning Objective 3**
Annual Meeting/Section Awards								

Workshop Session 1:30 - 3:00 pm Track A: Advanced Innovative Tools to Address Ulitity Needs (Part 2)								
Session Title	**Session Description**	**Present Name/Title/Company**	**Presenter Biography**	**Present Name/Title/Company**	**Presenter Biography**	**Learning Objectives**		
Laying the Digital Groundwork: 3D GIS and Integration for Smarter Utility Facilities	As water utilities modernize, managing facilities and vertical assets requires more than traditional tools. Pennichuck partnered with LandTech Consultants to explore how 3D GIS, laser scanning, and system integration can improve visibility, coordination, and decision-making across treatment and pumping infrastructure. This effort lays the groundwork for a scalable, long-term digital strategy by connecting spatial models with operational systems, and delivering insights through intuitive web apps and dashboards. This presentation will share key takeaways, including considerations for adoption, data management, and organizational impact.	Derek Lutchko, GIS Manager La	Derek has been a leader in private industry and AEC for over 15 years. He loves using GIS to solve real world problems. His experience in GIS includes strategy development, spatial analysis, data integration, custom-solution development, project management, and system administration.	Jay Guarneri, GIS Administrator Pennichuck Water Works		Understanding benefits of 3D GIS for Facility and Vertical Asset management	Understanding considerations for Digital Twin development	
Securing the Flow: How Massachusetts Water Suppliers are Bolstering Cyber Defense Through Collaboration	Background and Challenge Water utilities across Massachusetts face increasing cyber threats targeting critical infrastructure, including SCADA systems and operational technology. Several publicly known incidents across US Critical Infrastructure in 2024 and 2025 have highlighted that the threat is real and active. Traditional approaches to cybersecurity often leave smaller and medium-sized utilities struggling with limited resources, expertise, and threat visibility. Recognizing that cybersecurity challenges transcend individual utility boundaries, several Massachusetts water suppliers formed an collaborative organization to address these challenges collectively. Collaborative Formation and Approach This presentation will detail how the collaborative was established, including the initial stakeholder engagement process and the creation of trust-building mechanisms essential for sensitive information sharing. The collaborative model prioritizes maintaining each member's operational independence while leveraging collective strength in cybersecurity preparedness and response. Key Accomplishments The collaborative has achieved four major milestones that demonstrate the power of cooperative cybersecurity efforts: Team Building and Engagement: Successfully established a committed, cross-utility team of professionals who work toward the shared goal of integrating cyber resilience into core water delivery missions. This team meets regularly and has developed strong working relationships that enable effective	Gus Serino, President I&C Sec	Gus Serino, PE, Pres I&C Secure, brings 25+ years experience in control systems engineering and OT cybersecurity. Gus leads a team focused on delivering secure, resilient, solutions for critical infrastructure. A subject matter expert, with media appearances on Anderson Cooper 360, CNN and Wired. With prior roles at CDM, MWRA, and Dragos, Gus helps utilities build cybersecurity programs that protect essential services. Gus co-created the MA Regional Drinking Water Cybersecurity Collaborative.	John Manning, Water Commissioner, Town of Rowley, MA		How can organizations participate in the collaborative or take a similar approach to establish collaboratives in their regions.	A prioritized set of cybersecurity controls to most efficiently and effectively protect water systems.	A scalable, cost-effective, and secure architecture to implement a technical capability to detect and respond to threats in the water SCADA environments.
A New Best Practice in Distribution	Our distribution system fails often, causing damage, disruption, and loss. We inspect, monitor, place sensors, repair, and replace pipes. The task is prioritizing. Current best practice uses age, failures, and material. A new best practice uses many variables to assess risk of failure. AI finds patterns of failures, removes bias, and predicts pipe health for next year and beyond. It avoids half of the main breaks. The presentation has case studies and advice for adopting AI.	Jim Fitchett, Co-Founder, Voda	Jim Fitchett is a Co-Founder at VODA.ai., an AI company offering tools to help utilities manage their infrastructure. Jim is an entrepreneur and teaches graduate business courses at Harvard University. His courses on innovation and entrepreneurship are rated among the top ten in the management program. Jim started and sold three other companies, was a Partner with Ernst & Young's management consulting division, and was the first CIO at Harvard Medical School.			Compare current approaches to prioritize distribution resources.	Understand the impact of multiple variables on pipe health. Soil type, moisture, weather, land use, seismic activity, proximity to roads, bridges, bodies of water, railroads, and others may have a considerable impact.	Understand the basic requirements for employing machine learning.
Workshop Session 1:30 - 3:00 pm Track B: Reducing Risk and Integrating Data								
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Reducing Operational Risk Through SCADA Enhancements	Supervisory Control and Data Acquisition (SCADA) Systems at water and wastewater utilities have evolved from simple, local and manually operated systems to fully automated complex integrated systems. There have been numerous technological improvements such as remote monitoring and control capabilities, enhanced SCADA human machine interfaces, and data accessibility. This evolution comes with many risks associated with poorly designed, implemented and maintained Human Machine Interfaces, alarm and notification systems, human factors, security, and governance. If these risks are not properly assessed and managed, serious consequences can occur. This presentation examines how a significant operational incident in the water distribution portion of a combined wastewater collections and water distribution SCADA system prompted a SCADA risk assessment. It discusses how the utility rose from that failure by implementing the recommendations arising from the risk assessment. The presenters will show how the implementation of EMA’s recommendations provided a basis for further optimization initiatives in the SCADA system and with the overall operations. The presentation will begin with a brief overview of the operational incident that affected numerous customers and its root cause to set the stage. It will then provide details of the risk assessment approach and discuss how the risks were identified. After the significant operational incident, the new CEO of the utility asked the utility’s trusted advisor, EMA, to perform a SCADA Risk Assessment to identify root causes of the incident. We will present the risk assessment approach which included reviewing the SCADA technology in use, visiting sites	Karen Green, Principal Engineer EMA-Inc.	Karen has over 25 years of experience in various industries including water and wastewater, oil and gas, and alumina refineries, where she worked in Maintenance and Control Systems departments. Her most recent role was the Sr. Manager - SCADA and Process Control at DC Water where she served for 10 years. Karen is passionate about utilizing SCADA data for decision making, improving operational effectiveness through the implementation of standards and business processes, and alarm management.	Robert Daly, Principal Engineer	Bob has over 30 years of experience working with water and wastewater mission critical systems in the United States. He has directed enterprise teams caring for SCADA, GIS, LIMS, and Operational Data Management Systems. He has over 17 years of operations and maintenance experience within water utilities and is a licensed water and distribution system operator in Connecticut and Professional Engineer in New Jersey and Pennsylvania.	To encourage utilities to be proactive in managing their SCADA system to mitigate risks against potential operational failures.	To share how implementation of SCADA risk assessment recommendations improved operational effectiveness.	To demonstrate how applying change management techniques can foster buy-in and minimize resistance to changes.

Data Rich & Insight Poor? Hardly! How Digital Transformation Roadmaps Help Propel Utilities into the Future?	The water industry has evolved significantly over time. While the commitment and responsibility to deliver safe, reliable, and equitable water to customers and communities remain constant, the tools to support these goals have changed with the increased digital technology now available. As such, the water industry has gradually adopted various digital tools to enhance operational efficiency, regulatory compliance, and customer service. Early digital tools provided solutions for specific operational needs. These included basic customer information systems for managing billing and communications. Soon, supervisory control and data acquisition (SCADA) systems for controlling, monitoring and analyzing processes became standard at most utilities. More recently, automated meter reading systems (AMR), geographic information systems (GIS), and computerized maintenance management systems (CMMS) for asset management and operational workflows have begun to improve operational and planning fidelity and efficiency. While these tools address narrow use cases or domain-specific problems, they often do not integrate well with each other, leading to isolated data silos and operational inefficiencies. The emergence of more powerful and integrated digital tools holds the promise of addressing complex, multifaceted challenges within the utility sector. Advanced metering infrastructure (AMI), IoT devices, and data analytics platforms offer the potential for comprehensive improvements across the entire spectrum of utility operations. While some digital tools have delivered substantial benefits, others have fallen short of expectations. Successful digital transformation requires careful selection, integration, and implementation of technology, tailored to the specific needs and conditions of the utility. Despite the potential of	Keith Hodsden, Vice President Trinnex	Keith Hodsden is the Vice President of Sales at Trinnex, with over 25 years of experience in the water/wastewater industry. He has a BS degree in Civil Engineering from Worcester Polytechnic Institute, a MS degree in Civil Engineering from the University of Oklahoma and serves as an officer in the Vermont Air National Guard. He is a licensed Professional Engineer in the State of Florida.			Eliminating Siloed/Inaccessible/Opaque Data and Operations	Improving organizational knowledge retention using digital technology	Implementing innovation through the use of advanced digital technology
Sleeping Giant: Awakening the Power of your Data Assets	Discover how to break down operational technology (OT) data silos and harness SCADA data to drive smarter decision-making. This presentation explores strategies to treat your data as the valuable asset it is, unifying disparate data streams, enhancing cross-departmental collaboration, and making SCADA insights accessible across the organization. Learn practical approaches to unlock the full value of your data, boosting efficiency and resilience in industrial systems. Additionally, discover how automation platforms can leverage emerging technologies like machine learning and digital twins to enable predictive maintenance, optimize performance, and support real-time decision-making. By integrating these advanced tools, organizations can transform raw data into actionable insights, fostering innovation and encouraging efficiency in their operations.	Phillip Relf, Associate, Electrical/Instrumentation and Controls Stantec	Electrical, instrumentation and controls engineer for Stantec with specialized skills associated with water and wastewater controls, SCADA implementation and commissioning. With 10 years of industry experience, he holds a BEng in Electrical and Electronic Engineering Technology and MSc in Power Engineering; both from University of Greenwich.	Mike Greely, Technology Consultant Stantec		Discover how to break operational technology (OT) data silos and harness SCADA data to drive smarter decision-making. This presentation explores strategies to treat your data like the asset it is, unifying data streams, improving cross-departmental collaboration, and making SCADA insights accessible across the organization. Learn practical approaches unlock the value of your data, enhance efficiency and resilience in industrial systems.	Discover how to break down operational technology (OT) data silos and harness SCADA data to drive smarter decision-making. This presentation explores strategies to treat your data as the valuable asset it is, unifying disparate data streams, enhancing cross-departmental collaboration, and making SCADA insights accessible across the organization. Learn practical approaches to unlock the full value of your data, boosting efficiency and resilience in industrial systems. Additionally, discover how automation platforms can leverage emerging technologies like machine learning and digital twins to enable predictive maintenance, optimize performance, and support real-time decision-making. By integrating these advanced tools, organizations can transform raw data into actionable insights, fostering innovation and encouraging efficiency in their operations.	
Workshop Session 4:00 - 5:30 pm Track A: Drinking Water Policy & Regulations: Innovative Approaches to Improve Water Quality and Meet Compliance (Park 2)								
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Updating Connection Charges can address multiple challenges	This presentation addresses the opportunity offered to water utilities in updating their connection charges to accurately reflect their capital investment needs and ensure long-term financial sustainability. As infrastructure ages and served populations grow, utilities face immense pressure to concurrently fund projects addressing system expansion, rehabilitation of older assets, and new regulatory compliance burdens. Traditional connection fee structures often fail to capture the true costs new development places on existing capital infrastructure and future capital needs. We will explore the various methodologies for calculating modern connection charges, moving beyond simplistic, one-fits all approaches. Key concepts to be addressed include: System-wide Capacity Connection Charges (CCCs): This method allocates the cost of expanding or strengthening the entire water system (treatment, transmission, distribution) based on the incremental demand generated by new connections. We will delve into how to determine the `cost of capacity` and equitably distribute it. Ready-to-Serve (RTS) Charges: Focusing on the costs of making service immediately available to a new property, RTS charges can cover specific connection infrastructure, meter installation, and a portion of readily available system capacity. Impact Fees: While often broader, we will examine how water-specific impact fees can be tailored to directly offset the capital costs associated with new development. 	Toby Fedder, Senior Manager	Toby, a Senior Manager at Raftelis, is a PE with 20 years experience in utility financial advisory services. He specializes in capital planning, rates, and valuation for utilities facing significant investment needs, bridging the technical and financial aspects of utility operations. As an active AWWA-FAMC committee member, he has contributed to both the M29 & M54 manuals and has published articles on utility valuation and rate-making.	Christopher Peck, Public Works Director, Town of Middleborough, MA	Christopher, Middleborough's Public Works Director since 2012, oversees all aspects of the Town's Water/Wastewater finances, operations, and strategic planning. Projecting over $100M+ in water capital investment needs and managing ongoing development, he undertook a full review and update of the Towns rates structures and connection fees policies to ensure the utilities' long-term fiscal health. Updated policies were implemented through the public process effective FY2024-2025.	Understanding the basis and use of various connection charges	Integrating appropriate charges into a utility's financial planning	Learning proven methods to successfully implement updates to connection charges
Addressing Legionella in Water Distribution Systems and Customer Buildings: Learning from the Grand Rapids, MN Outbreak	This talk is a short reiteration of longer presentations given at AWWA ACE25 in Denver, CO, and pulls from 3 individuals representing real world experiences from water utility operations, management, and microbiological experts who resolved the Grand Rapids, MN Legionnaires' disease outbreak including, but not limited to, Dr. Chad Siedel, President of Corona Environmental, Cristian Mathews, Ph.D. Water Process Engineer, and Julie Kenndy, General Manager Grand Rapids Public Utilities Commission.Legionnaires' Disease is the most reported drinking water public health concern in the U.S. and the incidence rate continues to increase. The drinking water community must recognize and address the occurrence of Legionella pneumophila and concerns that lead to Legionnaires' Disease. On February 12, 2024, the Minnesota Department of Health (MDH) issued a news release about epidemiologic and laboratory data (PCR, culture- based methods, whole genome sequencing) pointing to areas of the Grand Rapids (MN) Public Utilities (GRPU) municipal water system as the source of a Legionnaires' Disease outbreak, with fourteen cases having been confirmed at that point since April 2023. Over the following 5 months while confirmed case numbers grew to 34, representing the largest active outbreak in the U.S. at the time, water utility operations, engineering, management, and outside experts worked diligently to find locations with Legionella pneumophila occurrence at concentrations of concern and effectively address the outbreak by implementing disinfection on June 24, 2024. While in some ways this is very much a success story, it serves as a cautionary tale for the drinking water utility community to recognize and address the occurrence of Legionella pneumophila and concerns that lead to Legionnaires' Disease. This talk also highlights several important conditions that are not currently addressed well for drinking water utilities, in that this occurred at an otherwise	Patsy Root, Sr Manager, Govern	Patsy has 18+ years experience in water microbiology, regulations, standards development, and laboratory accreditation. She works with federal agencies, state legislative offices, and industry organizations to encourage the development of sensible laws, regulations, standards, and guidance to protect public health and ensure safe, quality water. Patsy is a long time participant with TNI, Standard Methods, AOAC, ASHRAE and is the Maine Director for the NE AWWA.			Gain context for how GRPU's Legionella crisis may be experienced in your water system	Consider how GRPU's insights for customer communication and suggestions for other water utilities can be adapted to your water system	Recognize and address the occurrence of Legionella pneumophila and concerns that lead to Legionnaires' Disease
Small Spaces, Big Challenges: Retrofitting UV Disinfection for Safe Drinking Water	In November 2006, USEPA released the UVDGM for LT2ESWTR. This document provides technical information on how UV should be applied for disinfection of public water systems. It is important to note that it is not a regulation just guidance on how to implement UV. The presentation will focus on the following aspects of UV disinfection: UV fundamentals Equipment selection Validation requirements Regulatory summary Individual filter installation compared to combined filter effluent Ultraviolet disinfection is gaining traction in the use of water treatment plants for a variety of reasons: Cryptosporidium and/or giardia in their surface waters Virus and/or coliforms in their well water TTHM reduction by reducing the amount of chloramines needed	Patrick Bollman, P.E UV Business Development Manager, Xylem	Patrick has been in the engineering industry since graduating from the University of Cincinnati with a BS in Civil and Environmental Engineering in 1999. Since 2000 he has been working in the UV industry currently as the UV Business Development Manager for Xylem. Patrick has been involved in project management, design, equipment sizing, and validations. Patrick is a licensed engineer, has presented at dozens of conferences in North America, and has had articles written in various trade journals.			Better understanding of science of UV	Validation requirements for DW and UV	Comparison of individual filter effluent and combined filter effluent UV installation
	Workshop Session 4:00 - 5:30 pm Track B: Climate Resiliency							
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Natural Asset Management Planning for Watershed Protection in a Changing Climate	In partnership with the Massachusetts Department of Conservation & Recreation (DCR) Division of Water Supply Protection (DWSP), Tighe & Bond is developing a climate change vulnerability assessment (CCVA) framework for forests and other natural assets for approximately 450 square miles of public and private land that contribute high quality drinking water to the Massachusetts Water Resource Authority (MWRA) for treatment and distribution to 53 communities. The potential degradation of these natural assets as a result of climate change threatens to reduce drinking water quality.This proactive, watershed-based asset management approach will aid in maintaining Federal EPA filtration waiver requirements. This session will explore methodologies for identifying and classifying natural assets in the context of a large planning area, emphasizing a framework to assess the criticality, risk, and vulnerability of these natural assets through the context of climate change. We will discuss the integration of a Multi-Criteria Decision Analysis and the Municipal Natural Asset Initiative (MNAI) framework to provide a structured natural asset evaluation process that identifies at-risk assets to be monitored more closely through DCR’s asset management planning processes. The session will be presented through multiple lenses including climate change resiliency, asset management, condition assessment, and sustainability, ensuring a comprehensive approach to safeguarding essential natural assets.	Wayne Bates, Director of Resiliency and Sustainability Tighe & Bond	Dr. Bates serves as the Director of Resiliency and Sustainability at Tighe & Bond, is an adjunct professor at WPI and the University of Massachusetts Dartmouth, and serves on the Civil Engineering Advisory Boards at WPI. Dr. Bates has also served numerous volunteer positions including the Town of Ashland Sustainability Committee, Town of Ashland Water Policy Committee, and as a Sustainability Facilitator for the Associated Industries of Massachusetts.	Ken MacKenzie, Director of Natural Resources, MA Department of Conservation and Recreation	Ken is the Director of Natural Resources within DCR's Division of Water Supply Protection (DWSP) Office of Watershed Management. He is responsible for overseeing the protection and management of natural resources within the four watersheds managed by DCR (Quabbin Reservoir, Ware River, Wachusett Reservoir, and Sudbury Reservoir) that provide drinking water for 3 million residents of Boston primarily within greater Boston.	Understanding of the value natural assets to drinking water supply	Application of natural asset management to prioritize natural asset exposure to climate change	Application of multi-criteria decision analysis to evaluate natural asset condition and vulnerability to climate change
Climate Resilience and Adaptation in the Water Sector	This presentation explores climate resiliency adaptation strategies tailored for small municipalities, equipping them with practical tools for effective stormwater management. Through two interconnected case studies in New Rochelle, NY, it demonstrates how flood resiliency modeling and drainage design can drive infrastructure transformation. The first case study focuses on watershed-scale risk assessment and flood mitigation using advanced hydrologic and hydraulic (H&H) modeling, including InfoWorks ICM, to identify green and grey infrastructure solutions. The second case study advances one of these concepts to final design, emphasizing the role of digital twin delivery in bridging modeling with construction and asset-management-ready documentation. Together, these efforts achieved significant flood reduction—up to 93% in high-risk areas—while enhancing environmental quality, public safety, and sustainability through climate resilience readiness. The presentation aligns with NEWWA’s mission by showcasing scalable, cost-effective approaches that support long-term planning, stakeholder engagement, and sustainable water infrastructure in the face of increasing climate uncertainty. 1. Introduction Small municipalities face increasing challenges from climate change, particularly in managing stormwater infrastructure. This paper presents two case studies from the City of New Rochelle, NY, that demonstrate how advanced modeling and integrated design approaches can enhance flood resiliency and infrastructure sustainability. 2. Project Overview The Stephenson Brook Watershed and LINC Drainage Design projects were	Adriana Herrera, Senior Water Resource Engineer, WSP	Adriana Herrera is a water resource engineer and project manager with nearly a decade of experience. She specializes in hydrology and hydraulic studies, stormwater best management practices, drainage infrastructure design, and environmental permitting. Adriana also supports dam and riverine rehabilitation projects. She excels in leading multi-disciplinary projects within budget and schedule, incorporating cutting-edge technology and adhering to design regulations.	Elias Galva, PE, Lead Consultant Water Resources Engireering WPS	Elias Galvan is a Civil Designer with H&H modeling experience, specializing in Integrated Digital Delivery. A licensed Professional Engineer in NY and Florida, he has over a decade of civil infrastructure design experience. As Lead Consultant in Water Resources Engineering at WSP, he focuses on stormwater management, climate resilience, and sustainable infrastructure. Elias holds a Doctorate in Civil Engineering and a Masterâ€™s in Global BIM Management.	Understanding and Implementing Climate Resiliency in Water Infrastructure	Utilizing Advanced Modeling Techniques and Digital Twin Technology	Promoting Community Engagement and Sustainable Practices
Flood Resilience by Design: Developing a BIM-Driven Stormwater Management Project	As water utilities face increasing demands for climate resilience, regulatory compliance, and operational efficiency, digital-first strategies are becoming essential. This session presents a comprehensive framework for applying ISO 19650 standards to Stormwater Management projects, with a focus on structured data management, lifecycle integration, and collaborative design. The presentation begins by introducing the Exchange Information Requirements (EIR) and BIM Execution Plan (BEP) as foundational documents that define and guide the modeling process. A real-world case study is used to demonstrate how a 2D overflow model is developed in InfoWorks ICM, structured around a Project Information Model (PIM). This model forms the basis of a digital twin, which is then integrated with Civil 3D 2026 to support detailed design, documentation, and coordination across disciplines. Attendees will learn how object-based data and automated workflows reduce manual rework, improve modeling accuracy, and ensure reliable data exchange. The session also explores how the Asset Information Model (AIM) is developed to support long-term asset performance, maintenance planning, and regulatory reporting. Emphasis is placed on how ISO 19650 principles enable consistent, high-quality information delivery throughout the asset lifecycle. The presentation concludes with practical guidance on creating an AIM Plan and implementing digital twin strategies that connect design, construction, and operations. Attendees will leave with actionable insights into how to structure their own water utility projects for smarter delivery, improved collaboration, and long-term resilience.	Elias Galva, PE, Lead Consultant Water Resources Engireering WPS	Dr. Elias Galvan, a licensed Professional Engineer in New York and Florida, is the Lead Consultant for Water Resources at WSP in NYC. With over a decade of experience in public and private sectors, he integrates advanced H&H modeling, sustainable design, and digital delivery. He holds a Master's and Doctorate Degree in Civil Engineering and a Master's in Global BIM Management. His portfolio includes stormwater management, flood mitigation, and digital transformation in water infrastructure.	Adriana Herrera, Senior Water Resource Engineer, WSP	Adriana Herrera is a water resource engineer and project manager with nearly a decade of experience. She specializes in hydrology and hydraulic studies, stormwater best management practices, drainage infrastructure design, and environmental permitting. Adriana also supports dam and riverine rehabilitation projects. She excels in leading multi-disciplinary projects within budget and schedule, incorporating cutting-edge technology and adhering to design regulations.	Learn how ISO 19650 improves collaboration and data structure in water utility projects.	Explore techniques to integrate modeling and design	Understand the benefits of creating a Asset Management Plan on a Digital Twin Context