

	Room 201-202	Room 203-204	Room 207-208	Room 215	Room 217
	Asset / Utility Management	Stormwater Collection & Removal of Suspended Debris, Hazardous Metals & Organics	Water Storage	System Operation / Ethics	Utility Management
8:30 AM	Reducing the Flow	Asset Protection with Appropriate Erosion Control Strategies in Flashy Streams	Rehabilitation of a Potable Water Tank with Limited Access and Lead Coating Removal	Use of BIM 360 and Generative Design for Project Delivery	Navigating Pre-Procurement as a Solution to Equipment Backlog on Emergency Projects
9:00 AM	At the mercy of the downpour: The Creekbed sewers facing the damaging effects of stream erosion	Lessons Learned from Integrating 1D and 2D Riverine and Collection System Models	Why should I Give a Dam? Dam Safety 101	Ethics Regulations and Cases in Engineering	Building Resilience through Operations Technology Cybersecurity: An Anne Arundel County Case Study
9:30 AM	Inter-agency collaboration for risk management	Stormwater Collection & Removal of Suspended Debris, Hazardous Metals & Organics	The Maryland Statewide PMP is Here! How the Probably Maximum Precipitation (PMP) Study is Impacting Design Storms for Dams		Cyber Resilience Starts with a Cybersecurity Program
	Room 201-202	Room 203-204	Room 207-208	Room 215	Room 217
	Asset Management - Data/Cyber Resiliency	Wastewater - Biosolids	Lead & Copper	System Operations	WWPS
1:00 PM	Not a Black Box: An Engaged Approach to Developing a Transmission Main CIP Program	Identifying Reliable Solids Management Options for the Parham Landing WWTP	(Part 4) - Construction management of Lead Service Replacement Programs – Just How Do We Get This Done?	70 Broken Valves – Which Valve do I replace first?	Introduction to a New Design Standard for Close Fit Liners: 20 years in the Making
1:30 PM	Long Term Corrosion Prevention Program - Potomac Interceptor - Using Innovative Tools to Support Strategy Development	Enhancing Anaerobic Digestion Performance with the Microbial Hydrolysis Process	Lead and Copper Rule Revisions – Baltimore’s implementation strategy in meeting and maintaining compliance	Introduction to SCADA Communication using DNP3	The Crypt is Open – Tales from the Brentwood Park Pumping Station Improvements
2:00 PM	WSSC Siphon Facility Assessments	Phosphorus in the Circle of Life - A Holistic Approach to Corrosion Control and Water Quality	Smart Program Management for Lead Service Replacement	Make the Data Speak Your Language: Fostering Dialogue Between Plants and Their Supporting Laboratories	Out of Sight, but Not Out of Mind – Pay Attention to Your Covered Assets
	Room 201-202	Room 203-204	Room 207-208	Room 215	Room 217
	Asset Management	Wastewater - Liquid Processing	Lead & Copper	Water Conveyance	Force Mains
3:30 PM	Local Utilities Answering the Call in Mississippi	More nutrient removal without carbon addition - An Overview of various process pathways taken by US facilities	(Part 1) Estimating the costs for a Lead Service Replacement Program – What Can You Expect?	If a water pipe leaks in a creek does it make any noise?	Proposed Electrical Tower Near a Force Main in the Bush River Let’s Perform an Underwater Inspection to Assess Risks!
4:00 PM	Are Metallic Pressure Pipes Forever Assets? A Review of a Decade of Inline Condition Assessment Data	Compact, energy-efficient and chemical-free Biological Nutrient Removal using AquaNereda® Aerobic Granular Sludge Technology	(Part 2) – Lead Service Replacement Program – Using Data to Inform the Utility, the EPA, and the Public	Overcoming Construction Challenges During COVID on a Complex Multi-phase Project	External Verification of Internally Identified Defects During a Forcemain Condition Assessment
4:30 PM	XDOT Large Diameter Metal Plate Arch Rehabilitation with Unreinforced Geopolymer Mortar	Enhanced Biological Nutrient Removal with Minimal Recycle Flows in a Phased Activated Sludge System	Lead & Copper Rule Crisis Communications: How to Successfully Handle Newsmaking Public Notifications in as Little as 24 Hours	Collaborative Design-Build Approach Saves 84-inch Water Main from a Storm Drain Sinkhole	To Dig or Not to Dig? A Case Study in Sewage Force Main Replacement by Pipe Bursting/Splitting

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	Asset Management	Wastewater - Biosolids	Utility Management	Utility Management	Collection System
8:30 AM	Assessment of a Glass-Lined Digated Sludge Forcemain	Using gas upgrading and thermal hydrolysis to optimize energy production. Case-study from the UK	Strengthening Climate Resilience with EPA's Creating Resilient Water Utilities	Asset Protection: Several Case Studies in Sustainable, Resilient Solutions	Vacuum Sewer Systems 101
9:00 AM	Let's Get it Done! Leveraging Big Data to Enhance a Water Main Replacement Program	A Novel Method to Quantify Biosolids Drying Properties	NEW / REPLACEMENT PFAS Public Communications: How to Deal with the Impacts of the EPA's New MCLs, Health Advisories, and UCMR 5 Testing	What Happens When You Can't Get There From Here? The Challenges of Multiple Reclaimed Water System Planning	Under Pressure - Accelerated Design for Pressure Reducing Station
9:30 AM	Using Artificial Intelligence to Optimize Sewer Cleaning	Gasification and Pyrolysis of Sewage Sludge Biomass and Intensification of Pyrolysis	An Immersive Journey Through Innovation: Exploring Advanced Water Treatment through Public Outreach	Staff Growth to Meet Equity Objectives and Urgent Technical Requirements	More Than Just Alarming: Modern Monitoring Solutions Help Utilities Optimize Assets with Data
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	Asset Management - Pipeline	Wastewater - Liquid Processing	Water Treatment	Utility Management	Collection System
11:00 AM	PCCP Management Innovation Continues: 2022 Field Trial Findings	NEW / REPLACEMENT Bringing Sewage Pump Stations Up to Speed – Five at a Time	Different Treatment Processes for Similar Contaminants: How VOC and Iron/Manganese Removal Affect PFAS Treatment	Utilizing a Decommissioned Rock Quarry for a new 1-Billion Gallon Reservoir for Sustainable Use of the Region's Water Supply.	Modernizing CSO Management
11:30 AM	NEW TIME Learning from Experience: Emergency Preparedness "Best Practices" to Limit the Impact of Watermain Failures	A New On-site, Standardized Screen Capture Efficiency Sampling & Testing Protocol for all New & Old Wastewater Treatment Plant Screening Equipment	On-Site Sodium Hypochlorite Generation: A Safe and Reliable Disinfection Alternative to Bulk Sodium Hypochlorite and Gas Chlorine	Winter storms, power outages, flooding... with increasing impacts of disruptive events, where does one start planning for and building resilience?	Sub-aqueous sewer crossing between residential neighborhoods
12:00 PM	Peering Through the Subsurface to Assess Vulnerability in Gravity Sewer Pipes: Why do you look so Sag?	Is Peracetic Acid (PAA)-based Domestic Wastewater Effluent Disinfection the Real Deal?	Design and Installation of treatment system at Brunswick's Youree Spring - Bringing the City's 100+ Year Old Water Source into the Future	Don't Just Collect a Treatment Plant's Operational Data - Leverage it!	Overcoming the Challenges of Pumping into a Long Force Main with Low Static Head
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	Asset Management	Wastewater Treatment	Water Treatment	System Operations	Stormwater
2:00 PM	WSSC Water Efforts to Address Pipe Supply Chain Issues	Planning for PFAS? - Leveraging and Phasing Thermal Processes	Advancing potable reuse in Anne Arundel County Maryland using a carbon-based treatment approach	From Soup to Nuts: Using Digital Twins to optimize your water system from source to customer	Stormwater Project Management Solutions
2:30 PM	Equitable Cost Allocation - DC Water's Multijurisdictional Approach	Sod Run WWTP Improvements Project –Harford County's Approach to a Successful Project with a Growing Scope	Settling Down to Clean - Handling Design and construction of a Consent Decree Driven Project	Evaluating Metering Program Health and Advanced Metering Infrastructure System Performance: Adapting to a Mature Metering Program	A 21st Century Tool to Address 21st Century Flooding: Modeling the City of Baltimore's Stormwater System
3:00 PM	Interactive and Dynamic Online Asset Management Plans for Utilities	Development of Dynamic Process Model to Provide Operational Insights for Arlington WPCP	Rapid PFAS Treatment Implementation for the groundwater wells	Planning, Preparation and Practice Minimizes Downtime - Lessons learned from three years of THP shutdowns	Tips for Evaluating the Feasibility of Retrofitting Existing Stormwater Facilities
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	Asset Management	Utility Management	Wastewater	System Operations	Stormwater
4:00 PM	Virtual Reality and 3D Design are the New Norm for Design and Operations Management	Reduction of Nitrous Oxide Emissions from Biological Nutrient Removal Processes by Thermal Decomposition	Whoa there! When the Contractor's field observations send you back to the drawing board for a better outcome.	Common Corrosion Questions for O&M	Leveraging Community Engagement, Technology and Engineering to Address Drainage Concerns in Gaithersburg
4:30 PM	Water System Planning in Developed Municipalities	Waste & Energy Recovery Lead to Sustainability at the Clearwater WWTF	Best Practices of Enhanced Biological Phosphorus Removal (EBPR). What You Can and Cannot Control.	Starting Simple: Digitizing Small/Medium Utilities from Data to Insights	Combined Sewer Separation – Challenges & Lessons Learned
5:00 PM	Let's optimize your business workflows as part of your Asset Management strategy	Minor Systems, Major Impact – Cost Effective Nutrient Reduction via Minor System Upgrades	How Flushable Plastics, Disposable Wipes & Grinders Affect the Performance & Maintenance of Headworks and Membrane Protection Screens	Evaluating Biological Efficiency: Collection Systems and WWTP Problems and Solutions	Introducing a New Standard Method for Measuring Trash Capture

	Room 201-202 Asset Management	Room 203-204 Systems Operations	Room 207-208 Utility Management	Room 215 Ethics
9:00 AM	NEW / REPLACEMENT An Alternative Approach to Prioritizing Large Diameter Reinforced Concrete Pipes for Rehabilitation and Inspection	The Perils of Surcharging Interceptors: unintended Consequences of In-Line Storage	Styrene? Not in my ambient air! A DC Water case study for air quality monitoring and testing during CIPP installation at Soapstone Valley Park	NEW / REPLACEMENT Ethics in Intellectual Property for Professional Engineers
9:30 AM	Water Distribution Intervention Without Service Disruption	Managing Transmission Mains Through Various Data and Inspections Can Be Daunting – Here's A Way for Baltimore To Do It	Dynamic Water Systems - How Water and Wastewater Agencies are Applying Digital Transformation Strategies	
	Room 201-202 Asset Management	Room 203-204 Systems Operations	Room 207-208 Utility Management	Room 215 Wastewater
10:15 AM	Glenridge 66-Inch Water Main Relocation - Benefits of Early Contractor Inclusion in Design and Pre-Construction	Simple Improvements to SCADA Graphics can have a Big Impact	Climate Adaptation and Preparing for Long-term Resilience	Adaptive mixing and process optimization with energy savings
10:45 AM	Leveraging Configurable Software Solutions to Support Vertical Asset Management	Clarifier Down... I Repeat, Clarifier Down...A Teams' Approach to Save a Plant's Operation	Using GIS to identify, track, and report on lead service line data to meet EPA requirements	RNG: Maximizing the Value of Biogas
11:15 AM	Asset Management Programs to Address the Labor Shortage	NEW / REPLACEMENT Stepping Into Biosolids Treatment: One Utility's Quest to End WAS Hauling by Dewatering	Leveraging Data Integration to Unlock Utility Growth	Side stream nitrogen removal – How have common processes actually performed at WRRFs?

**Tuesday August 29, 2023
Pre-Conference Workshops**

	Room 201-202
1:00 PM to 5:15 PM	Pre-Conference Workshop: Climate, Workforce, and Cybersecurity for Asset Managers (CWEA/CSAWWA Asset Management) NonProcess Credit
	Room 203-204
1:00 PM to 4:15 PM	Pre-Conference Workshop: PFAS: Treatment and Finance Options (US EPA) NonProcess Credit

**Operator Process Classes
Room 210, Second Floor**

Wednesday, August 30, 2023
Water Treatment – Compliance and Safety, : TRE 5818-15-12, WT All Operators (Process, 7 hours) 8:30 AM - 5:00 PM
Thursday August 31, 2023
SCADA Systems : TRE 5738-15-06, All Operators (Process, 7 hours) 8:30 AM - 5:00 PM