

	Room 201-202	Room 203-204	Room 205-206	Room 215	Room 217
	Asset / Utility Management	Utility Management	Water System Infrastructure	Wastewater Treatment and Solids Processing	Stormwater
8:30 AM	Optimizing Lead Service Line Replacement with Machine Learning	Addressing Water Supply Challenges - Aquifer Recharge in Hillsborough County Florida	What Could Go Wrong? Lessons Learned from Trenchless Water/Wastewater Installations	Modeling for Success: Upgrading Lagoon Based Treatment Systems to Meet More Stringent Limits for BOD, TSS and Nutrient Removal.	MS4 TMDL Program Management: Case studies in Planning to Implementation for Project Portfolios
9:00 AM	Enhancing asset management workflows with out-of-the-box GIS web applications	Advanced Water Treatment for Managed Aquifer Recharge in Anne Arundel County, MD	Impact of Flow Rate and Water Age on Opportunistic Pathogen Growth: Implications for Water Conservation, Fixture Design, and Policy	Primary settling tank capacity and performance assessment at AlexRenew	ETHICS: Overcoming data inequities to improve outcomes
9:30 AM	Asset Management – Building Information Management (BIM) 16th & Alaska Pump Station Pilot	Planning for the Future – Identifying Future Raw Water Sources and Assessing Treatment Needs	Lessons Learned from Implementation of DC Water Digital Twin	Case Studies of Secondary Biological Treatment Systems Meeting Full Enhanced Nutrient Removal Limits	
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	Asset / Utility Management	Utility Management	Water System Infrastructure	Wastewater Treatment and Solids Processing	Stormwater
1:00 PM	Findings and Lessons Learned from a comprehensive Visual and Sounding and Electromagnetic Survey of a Large Transmission Main	Artificial Intelligence Applied: Reducing Lead Exposure Promotes Environmental Justice in Toledo, Ohio	Dam Design Value Engineering Approaches – Applying the Latest Science to Address Spillway Capacity	Achieving Enhanced Nutrient Removal with AquaNereda® Aerobic Granular Sludge	Innovative Methods to Select and Implement Green Stormwater Infrastructure Improvements within large watershed areas – A case study in DC’s Watershed
1:30 PM	Corrosion and Aging Water/Wastewater Infrastructure	BALTIMORE CITY’S INTEGRATED PLANNING FRAMEWORK IN CAPITAL IMPROVEMENT PROGRAM AND EQUITY LENS	1 Million Gallons of Drinking Water Storage Replacement for the Town of Middletown	Is it possible to remove PFAS from Biosolids? A review of different PFAS removal technologies	Extreme Makeover, Sediment Basins Edition: Conversion to Submerged Gravel Wetlands at Fullerton
2:00 PM	Aligning Capital Investments to Maximize Customer Level of Service	A Clearer Lens to Drive Water Equity in the Community	Dam Removals - Maryland Lessons Learned and Future Applications	Mitigating the impacts of Volatile Market Conditions through Progressive Design-Build	Glenmont Forest Green Streets: The Challenges and Success of Stormwater Retrofits in the Urban Environment
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	Asset / Utility Management	Utility Management	Water System Infrastructure	Wastewater Treatment and Solids Processing	Stormwater
3:30 PM	Don’t get caught with your pumps down... Using analytics to improve pump performance.	Resilience Funding, Financing, and Implementation Strategies: The Usual Suspects and Non-Traditional Opportunities	Mining for Lead: Lead and Copper Rule Revision Inventory	A full-scale demonstration of ABAC results in energy and carbon-efficient BNR via SND and post denitrification with internally stored carbon	The Application of Geographic Information Systems (GIS) in Storm Water Management.
4:00 PM	AWWA Standards and Manuals Supporting Water Storage Tank Inspection and Cleaning	A Case Study for Funding Water Infrastructure Projects	Trigger-Based Distribution System Master Planning	Rehabilitation of Biosolids Drying System to Regain Capacity	The Role of Community-Enabled Lifecycle Analysis of Storm Water Infrastructure Costs (CLASIC)
4:30 PM	The Goal Posts Keep Moving! Lessons Learned from Recent Water Main Inspections	What’s It Worth to You? An Analysis of WSSC Water’s Water Treatment Residuals	Rehabilitation Innovation and Historic Preservation at the City of Baltimore’s 40 MGD Guilford Water Pumping Station	Cooking Without Gas: Reducing sludge management costs using THP (Thermal Hydrolysis Process) in plants without anaerobic digestion	Challenges and Lessons Learned in Developing a Stormwater Fee

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	Asset / Utility Management	Utility Management	Water System Infrastructure	Wastewater Treatment and Solids Processing	Wastewater Collection Systems
8:30 AM	Biosolids Facilities Planning - Using Asset Management and Adaptive Pathways Planning for Milwaukee MSD	Renewable Power and Microgrid Assessment for a Water Reclamation Facility in Anne Arundel County	Choosing the Right Rehabilitation Technique for Water Mains	Degreasing the Pipes: Effectively Processing FOG at the Central WPCF	Rehabilitating a century-old sewer in an environmentally sensitive area with permissions from multiple agencies in Washington, D.C.
9:00 AM	Ensuring Critical Asset Optimization and Uptime using Artificial Intelligence	Can Backup Generator Installations at Wastewater Treatment Facilities Generate Revenue? - A Case Study	Dealing with Failure	Collaborative, Trigger-Based Biosolids Masterplan for Seven-Facility Municipality in the Chesapeake Bay Watershed	Flexibility Drives Micro-tunneling Success
9:30 AM	Utilizing mobile, battery-operated cellular data recorders with a map-centric approach to municipal water and sanitary sewer system monitoring.	Engaging the Team – Collaborative Risk Development and Tracking	From Concept to Reality: Improving the Integrity of Service Reinstatement in CIPP Lined Pressure Pipes	Two-Stage Partial-Nitritation/Anammox Process Demonstrates Stable and Efficient Treatment of High-Strength Industrial Digestate	Urban Stream and Sewer Improvements in Parallel...A Challenging Project
	Room 201-202	Room 203-204	Room 205-206	Room 215	Room 217
	System Operations/Maintenance	Utility Management	Sustainability/Resiliency	Wastewater Treatment and Solids Processing	Wastewater Collection Systems
11:00 AM	Corrosion Test Stations: Repair and Usage	Harnessing the Power of Data: Using Key Performance Indicators and Benchmarks to Optimize Your Operations	Preparing the Wastewater Treatment Facilities Operations for Extreme Weather Events	Cleanest Effluent in the State?	Baffled?! Solving Pump Air Binding with Out of Box Thinking Process
11:30 AM	Water Quality Hurdles - Case Study in Balancing Fire Protection with Water Quality for Nitrification Control	Visualization techniques to improve workforce efficiency	Machine-Learning Aeration Control for Energy Efficient Secondary Treatment	Upgrades to Aeration System at 64 MGD Facility to Optimize Process Aeration Control and Reduce Process Airflow	Collection System Odor Abatement for Anne Arundel County
12:00 PM	Impact of Covid-19 Pandemic Years in Maintaining Water Quality throughout the Washington D.C. Distribution System	Proactive Maintenance Planning using Robotics, AI and Neural Networks	Resilience through simulation: using digital twins to prepare for climate change	Thermal Hydrolysis (THP) – Commissioning Experiences and Considerations	Sustainable Energy Solutions for Wastewater Pumping Stations in Anne Arundel County, Maryland
	Room 201-202	Room 203-204	Room 205-206	Room 215	Room 217
	System Operations/Maintenance	Water Treatment	Sustainability/Resiliency	Wastewater Treatment and Solids Processing	Wastewater Collection Systems
2:00 PM	Screening Failure at an Aging Wastewater Pump Station – Expedited Design and Construction for Emergency Repairs	Lead and Copper Rule Revisions - Case Studies on Ways to Simplify Compliance	Offsetting the Grid and Providing Backup Power to Maintain Critical Operations for the Frederick County WWTP	Ballasted Flocculation and Clarification for Ultra-low Total Phosphorus Reduction	Using Transmissive Acoustics to Prioritize Sewer Cleaning and Reduce SSOs in Rockville, MD
2:30 PM	Planning, Design, and Data Management Considerations for Plant Optimization	Surveying Costs on The PFAS Roadmap	Mapping Thermal Energy Exchange Potential from Urban Colorado and Suburban Maryland Collection Systems	Augmenting Anaerobic Digestion Performance with Recuperative Thickening in Dubai	How to Find the Sweet Spot for Sewer Cleaning Frequency
3:00 PM	Nutrient Management within a Bubble Permit	Let's Break down Forever Chemicals; Insights from Design/Build Approach to Provide PFAS Treatment	Award winning efficiency - CHP for the Piscataway Bioenergy Project	Upgrade and Rehabilitation of Two Headworks Facilities in Southern Delaware	Six Years of SL-RAT Data and What has Baltimore County Learned?
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	System Operations/Maintenance	Water Treatment	Sustainability/Resiliency	Wastewater Treatment and Solids Processing	Wastewater Collection Systems
4:00 PM	Practical Ways to Keep Your SCADA System Secure An Overview of Cyber-Security Standards, Best Practices, and Technologies	Optimization of the Residuals Handling Process at the Patuxent Water Filtration Plant	From Floyd to Florence: Impacts of Extreme Hurricane Events on the Tar-Pamlico River Basin, North Carolina	Using multiple treatment stages to provide more thorough odor control and reduction in operating costs	Large Diameter Pipe and Tunnel Rehabilitation Challenges on the Potomac Interceptor
4:30 PM	Smart Operations and Maintenance: Human versus AI-based Monitoring in Water and Wastewater Treatment Plants	FAST-TRACK COLLABORATIVE DESIGN OF A MEMBRANE WATER TREATMENT PLANT	Adapting Collection System Infrastructure to Changing Flood Vulnerabilities - Eastern Seaboard Case Studies	Sludge Densification: Emerging and Efficient Way to Look at Biological Nutrient Removal Treatment	Box-Tunneling Saves the Day from Utility Congestion
5:00 PM	Utilizing GIS to eliminate confusion and automate the customer notification process	UCMR5 - A Primer: What To Expect, When Does it Start, and Who is Effected.	Resilient Stormwater Pump Station Systems in Virginia Beach	Coagulants and Polymers – Fundamentals of Clarification and Dewatering	BALTIMORE CITY DEPARTMENT OF PUBLIC WORKS ACCELERATED DESIGN PROJECT DELIVERY METHOD

Friday September 2, 2022

	Room 201-202	Room 203-204	Room 205-206
	Asset / Utility Management	Utility Management	Sustainability/Resiliency
9:00 AM	Minimizing Risk during SmartBall Leak Detection Inspections	Lessons Learned: Managing Large Scale Progressive Design Build Water Projects	The Journey to Silver: Envision Sustainability Award at the Little Patuxent Water Reclamation Plant
9:30 AM	WSSC Water Consolidated Laboratory – “Easily visualize your building assets using a digital twin”	CMAR Delivery Enhances Design of New Raw Wastewater Pump Station at the Noman M. Cole Jr. Pollution Control Plant	WSSC Water Consolidated Laboratory – “How to Deliver a Sustainable Water Quality Lab”
	Room 201-202	Room 203-204	Room 205-206
	Wastewater Treatment and Solids Processing	Utility Management	Sustainability/Resiliency
10:15 AM	Continuous flow aerobic granulation: Revisiting biological aggregates for process intensification	The Innovation Journey at WSSC Water - Mapping Out Success!	CMAR and early contractor involvement puts critical infrastructure project on path to success
10:45 AM	Lessons Learned: It Pays to Pause	Cybersecurity Infrastructure: A Must for Water Utilities of the 21st Century	Building Back a Resilient and Sustainable Wastewater System Using Emergency Management Funding to Maximize the Benefit-Cost Ratio
11:15 AM	Transitioning A Large Wastewater Treatment Facility from Local Control to Plant-wide SCADA System	S-O-S, PLEASE, SOMEBODY HELP ME: BALTIMORE CITY'S SEWAGE-ONSITE-SUPPORT PILOT PROGRAM HELPING RESIDENTS ON	Why the KISS Principle is the Right Solution for Flood Protection at Leonardtown WWTP

Tuesday August 30, 2022 Pre-Conference Workshops

	Room 201-202
1:00 PM to 4:15 PM	<p>Pre-Conference Workshop: Asset Management</p> <p>NonProcess Credit:</p>
	Room 203-204
1:00 PM to 4:15 PM	<p>Pre-Conferencen Workshop: The Science of Manholes</p> <p>NonProcess Credit:</p>
	Room 205-206
1:00 PM to 4:15 PM	<p>US EPA presents Building Water Resilience in Your Community</p> <p>NonProcess Credit:</p>

Name: _____

Room 215	Room 217
Wastewater Treatment and Solids Processing	Engineering Ethics
Business Case Analysis for Biogas Utilization at Morris Forman WWTP	Ethical Considerations in Intellectual Property
Alternate Delivery of a Combined Heat/Power System – How to stay away from hot water!	
Room 215	Room 217
Wastewater Treatment and Solids Processing	Wastewater Collection Systems
Biosolids Management Strategy: A Shifting Paradigm - (A Step towards Zero-Waste)	Awakening the Sleeping Giant... Inspection of DC Water's 66-inch/96-inch Anacostia Force Main Gravity Sewer
Headworks Facilities Improvements at the Patapsco WWTP	In the Thick of Things: Measuring In Situ Drywell Can Thickness to Guide Rehab and Replacement Investments
Sidestream Design with Whole Plant in Mind	Intermunicipal Coordination to Manage Strategic Regional Asset Potomac Interceptor (PI) Flow Analysis