

# Technical Program at-a-Glance

Wednesday, August 28, 2024

	Room 201-202	Room 203-204	Room 207-208	Room 215	Room 217
	<b>Asset Management</b>	<b>Wastewater Treatment</b>	<b>Funding</b>	<b>Utility Management/Ethics</b>	<b>Collection Systems</b>
8:30 AM	Exploring Wet-weather Solutions Amidst Strict NPDES Discharge Limits	Knock Out, Drag Out Fight: Centrifuge vs. Belt Filter Press – Title for Best Dewatering Technology to Squeeze Poop at Dunn Water Reclamation Facility!	AlexRenew's Interest in Loans to Deliver Alexandria's Largest Infrastructure Project	SAFETY FIRST: Fire Protection Assessments for WWTPs	From Catastrophe Crisis to Resilient Renewal: Leveraging Innovation to Accelerate the Emergency Design and Construction of a Failed 48-inch Force Main
9:00 AM	Funding to Mitigate Disasters with "Fed Funds"	Technology Spotlight: Updates from Ecoremedy Fluid Lift Gasification Projects in PA and WA	The Growing Water Workforce: Making the Case for Increased Water Infrastructure Funding	Ethics in Patenting for Professional Engineers	Outfall-ing Down!
9:30 AM	State Actions to Help Water Systems Achieve Sustainability through Asset Management Planning and Implementation	Aligning Cogeneration Sizing with the Plant and Client's Goals (Big Plant Edition)	How WIFIA Financing Benefits Communities		Streamlining Infrastructure: Relocating a Sewage Interceptor for a Major Highway Interchange
	<b>Room 201-202</b>	<b>Room 203-204</b>	<b>Room 207-208</b>	<b>Room 215</b>	<b>Room 217</b>
	<b>Asset Management</b>	<b>Wastewater Treatment</b>	<b>Water Storage Tanks</b>	<b>Utility Management</b>	<b>Operations/Maintenance</b>
1:00 PM	Cracks, Shrunk Windowsills, Water intrusion – It's Time for a Condition Assessment!	Trial By Fire: Conducting a Full-scale Pilot Study with an Emergent Disinfection Technology	Managing Elevated Water Storage Tank Rehabilitation: Lessons Learned from 100+ Tank Jobs in DelMarVa	Automation and Analysis: Data-Driven Strategies Improve Utility Processes and Analyze Performance at WSSC Water	Safety Regulations Relating to Internal Pipeline Inspection
1:30 PM	Advancing Facility Management with Customized Cloud-based Tools for Condition Assessment	Operational Insights from the Patapsco WWTP: Lessons in Process Control and Rehabilitation	A Challenging Tank Upgrade for a Rapidly Growing System Constructed through the Pandemic	Collaborative Project Delivery with Drone Technology	Impacts of Streamlined Data Visualization on Program Delivery
2:00 PM	Engineering Approach to Condition-Based Maintenance for Mechanical Equipment	Improving MBR Performance Monitoring and Maintenance with Control Chart Methodology	Controlled Trench Blasting at Druid Lake – How to Keep the Drinking Reservoir In-service and Not Scare the Zoo Animals	Using Data to Target Customer Engagement & Outreach Efforts in Your Financial Assistance Programs	Sewer Data Management and O&M Plan Optimization in the City of Baltimore's Department of Public Works
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	<b>Asset Management</b>	<b>Wastewater Treatment</b>	<b>Water Distribution</b>	<b>Utility Management</b>	<b>Collection Systems</b>
3:30 PM	Asset Management – Building Information Management (BIM) 16th & Alaska Pump Station Pilot Demonstration	A PFAS Perspective – Laboratory, Landfills, and Biosolids	The Occoquan River Crossing Was a BLAST	Complying with AWIA 2025 Deadline	HRSD WWTP Primary Clarifier Influent & Effluent Pipe Rehabilitation
4:00 PM	How to Sweat the Small Stuff: A Risk Approach for Rehabilitating Small Diameter Sewers	Managing Wet Weather Challenges at the Pleasant Hills Authority WWTP	Pipe Bursting Proof of Use for Water Main Replacement: Insights from WSSC Water Pilot Project	The Importance of Cyber Resiliency in the Modern Utility: St. Louis MSD's Journey	How to Effectively Perform a Pipeline Health Check for Sewer Force Mains
4:30 PM	Manhole Inflow – The Uncomfortable Reality of How Much of Our Peak Wet Weather Flow is Related to Sheet Runoff	Not your Great, Great, Grandfather's Secondary Clarifier – New Clarifier Inlet Optimization Technology	CIPP Lining of Water Mains – A Cost-Effective Solution	Howard County Bureau of Utilities Water Isolation Tracer Tool	Post-COVID-19 Modern Trash Loading Proves Sewage Pump Clog Resistance Cannot Be Predicted by Impeller Throatlet Size

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	Asset Management	Wastewater Treatment	Water Treatment	Utility Management	Collection Systems
8:30 AM	Refining PCCP Inspections by Understanding Electromagnetic Field Interactions	Challenging the Retention Time of Anaerobic Digestion Using Thermal Hydrolysis Pretreatment	Rejuvenating the Montebello Water Filtration Plant for the Next 100 Years of Service	Lessons Learned from Operational Excellence and Collaborative Culture at the Patapsco Wastewater Treatment Plant	Kicking It Up a Notch: Year 2 in Modernizing CSO Management
9:00 AM	Water Main Predictions: How Good Old Statistics Still Help in the Age of AI	Challenges of Low BOD/TSS Ratios in Wastewater Treatment: A Case Study Analysis	Closing the Loop on PFAS: An Overview of PFAS Destruction Technologies to Expand PFAS Mitigation Efforts in Water & Wastewater	Tackle Brain Drain: Howard County's Approach to Capture Institutional Knowledge	Best Practices Learned from 20 Years of Large Diameter PCCP Force Main Monitoring and Management
9:30 AM	How to Predict the Uncertain: DC Water's Use of Monte Carlo Analysis to Quantify Lead Service Lines in DC	Anaerobic Digestion with H <sub>2</sub> S & Nutrient Control – What If Your Digesters Were the Sidestream?	Programmatic Rapid Deployment of Small-Scale PFAS Wellhead Treatment	Work at Baltimore City DPW – Why Would You Do That?	Leveraging Real-Time Performance Data for Daily Operations & Long-Term Planning of Wastewater Collection Systems
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	Asset Management	Wastewater Treatment	Water Treatment	Utility Management	Collection Systems
11:00 AM	Indirect Corrosion Inspection for Water Pipelines	How Low Can We Go? Successful Low DO Operations for Biological Nutrient Removal at Pomona WRF	Evaluating the Presence of PFAS and Gen-X Chemicals in a Raw Water Source and Developing a Treatment Strategy for a 12 MGD Water Treatment Plant	Delivering on a Critical Linear Infrastructure Project for Garrett County: Meeting Constructability Challenges while Providing Resiliency	Collaborative Delivery and Innovation Pass the Test of an At-Risk Wastewater Interceptor Rehabilitation Challenge
11:30 AM	What Goes First? A Prioritization Approach for Very Large Sewers	Innovative New Media with Advanced Deep Bed Primary Filtration Makes Significant Strides	How Pilot Testing Changed the Design of a PFAS Treatment Facility	Understanding Non-Revenue Water Using AWOL	Critical Thinking and Swift Mitigation in Saving a Century Old Masonry Trunk Sewer in Washington, DC
12:00 PM	Comparison & Validation of Water Pipe Condition Assessment Results on a 16-inch Cast Iron Pipe from Two Inspection Technologies	Retrofitting Solutions for High and Variable Airflows Using Low-Pressure Membrane Diffusers	Effective PFAS Removal and Waste Reduction using a Novel Micro-adsorbent Slurry and Separations Technology	A Sustainable Strategy for WSSC's Water Supply and Treatment: Climate Impacts, Water Quality Trends and Regulatory Challenges	Repairing History – DC Water's Experience Designing Rehabilitation of a 150-yr Old Sewer

# Technical Program at-a-Glance

Thursday, August 29, 2024 • Afternoon

	Room 201-202	Room 203-204	Room 207-208	Room 215	Room 217
	<b>Asset Management</b>	<b>Wastewater Treatment</b>	<b>Water Treatment</b>	<b>Utility Management</b>	<b>Operations/Maintenance</b>
2:00 PM	Charm City Criticality: Optimizing Valve Management in Baltimore	Out with the Old and In with the New	Ending the Use of Chlorine Gas at Major City of Baltimore Drinking Water Sites – How to Improve Safety and Reduce Chemical Demands	Holistic Design Processes and Post Construction Monitoring of In-Stream Asset Protection	Spinning Ain't Winning – Properly Setting Minimum Speeds on VFD Driven Pumps
2:30 PM	Navigating the Transition to ESRI's Utility Network	Optimizing DC Water's Aerated Grit Chambers with Innovative TruGrit Approach	Lead Sampling Plan Development for Schools and Childcare Facilities Under the LCRR	Collaboration in Mitigating SSO Risk in Buried Stream Crossing	Cathodic Protection Installation and Testing
3:00 PM	Smart Geospatial Analytics: Revolutionizing Corrosion Management in Water and Wastewater Infrastructure	An Innovative Lime Slurry System Provides Low Cost, Transitional & Contingency Solutions for Biosolids Stabilization	Leveraging BAC to Remove HAA in Drinking Water – Innovative DBP Treatment Pilot Testing to Supplement Charles County's Water Supply	Cherry Hill Drainage Improvement to Mitigate Flooding in Baltimore's Cherry Hill Neighborhood	Phased Construction for Expedited Gravity Thickener Rehabilitation
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	<b>Asset Management</b>	<b>Wastewater Treatment</b>	<b>Water Treatment</b>	<b>Utility Management</b>	<b>Stormwater</b>
4:00 PM	Streamlining Sustainability: A Tailored Asset Management Approach for Small Community Water Systems	Bay-Driven Regulations: Innovative Nutrient Mitigation Strategies for Wilmington WWTP	Novel UVLED Reactor for Indirect Potable Reuse	Lead Free DC – Public/Private Partnership, Lead Pipe Replacement Program (LPRAP)	Predicting Interior Flooding: Building an Integrated Flood Model for Washington, DC
4:30 PM	Where Is That File? Document Management Tools & Methods for Inspection and Condition Assessment Projects	Continuous Flow Aerobic Granular Sludge Process Helps with Sustainable Upgrades at WRRFs	What Happens During Drought? Impacts on Sourcewater and Treatment	What Happens When Your Lead Inventory Map Needs to Account for Data that Is "Mostly" Correct: How DC Water Updated its Inventory Map	Stormwater Utility: Revenue Generation and Expenditure Patterns in the Chesapeake Bay Area
5:00 PM	Maximizing Project Success through Integrated Asset Management and Strategic Planning: Case Study DC Water	Can You Spiral Down to ENR Easily... MABR Can Help You Reach a TN of 3 with No Additional Carbon	Carbon-Based Advanced Treatment brings (Direct) Potable Reuse to the East	A Lead and Copper Rule Service Line Inventory Through a Digital Approach: A Case Study from the City of Rockville, MD	Using a Digital Twin and AI to Predict Surface Water Quality and Flood Events

# Technical Program at-a-Glance

Friday August 30, 2024

	Room 201-202	Room 203-204	Room 207-208	Room 215	Room 217
	<b>Utility Management</b>	<b>Wastewater Treatment</b>	<b>Ethics</b>	<b>Utility Management</b>	<b>Stormwater</b>
9:00 AM	How to Avoid the #1 Mistake in Public Communications Before Your Service Line Inventory Rollout	Growing Up Together Lessons Learned During Startup: Commissioning Sidestream Deammonification Concurrent with THP Digestion	Ethics Regulations and Cases in Engineering	Assessment of First Floor Elevations Using Unmanned Aerial Vehicles	Frederick County's Approach to Water Resources Element Updates
9:30 AM	Equitable Infrastructure Investments for Equitable Outcome – DC Water's Experience	Steam Treatment and Thermal Hydrolysis: A Synergistic Approach in Solids Management		Building Climate Resiliency into Flood-Prone Facilities	Leveraging Private Ownership and Real-Time Control for Cost-Effective Stormwater Treatment in Howard County, MD
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	<b>Utility Management</b>	<b>Systems Operations</b>	<b>Wastewater Treatment</b>	<b>Utility Management</b>	<b>Stormwater</b>
10:15 AM	Innovative Project Delivery: CMAR Design-Build for Success in Water Projects	An Instrument Calibration Program Is Key to Quality Water Treatment	PFAS: The Latest on an Ever Evolving Regulatory Landscape – National and State Update	Preparing Your Water Utility for a Lower Carbon Future	A 21st Century Tool to Address 21st Century Flooding: Baltimore's Approach to Identifying Concern Areas and Solutions
10:45 AM	Soooo... How Did Your First CMAR go?	Staring into the Abyss: Using Remote Operated Submarines to Safely Inspect Underwater Infrastructure	An Award-winning Gasification Technology Shows Capacity of destroying PFAS In Biosolids: Australian Initiative to Transform Sewage Sludge into Energy	Planning for The Future: Coastal Resilience Modeling For Public Utilities	Integrated Short- and Long-Term Approaches to Reduce Nutrient Loading at a Major Recreation Lake Amenity
11:15 AM	Why Would You Use Multi-prime Contracting When You Don't Have to?	Opening Opportunities with Cross-Connection Thinking – DC Water's Path to Enhancing their CCC Program	PFAS in Biosolids: What Pros Need to Know	Building Resilience and Adapting to Climate Change Impacts for Drinking Water & Wastewater Utilities	Stormwater Management for Flood Resiliency: A Comparison of Approaches

## Tuesday, August 27, 2024

### Pre-Conference Workshops

	Room 201-202
1:00 PM to 5:00 PM	<p><b>Pre-Conference Workshop:</b> Asset Management</p> <p><b>Non-Process Credit</b></p>
	Room 202-203
1:00 PM to 5:00 PM	<p><b>Pre-Conference Workshop:</b> Cybersecurity</p> <p><b>Non-Process Credit</b></p>
	Room 207-208
1:00 PM to 5:00 PM	<p><b>Pre-Conference Workshop:</b> Funding, US EPA</p> <p><b>Non-Process Credit</b></p>

## Operator Classes

### Room 210, Second Floor

Wednesday, August 28
<p>Basic Motor and Pump Maintenance (Non-Process) <b>8:00 AM - 12:00 PM</b></p> <p>Coagulation, Flocculation, Sedimentation &amp; Filtration (Process) <b>1:30 PM – 4:30 PM</b></p>
Thursday, August 29
<p>Advanced Wastewater Class (Process) <b>8:30 AM – 12:30 PM</b></p> <p>Process Math for Operators (Process) <b>2:00 PM – 5:30 PM</b></p>