

# Wednesday, September 1, 2021

	<b>Room 201-202 Asset / Utility Management</b>	<b>Room 203-204 Utility Management</b>	<b>Room 205-206 Water System Infrastructure</b>	<b>Room 215 Wastewater Treatment</b>	<b>Room 217 Wastewater Collection Systems</b>
8:30 AM	Ensuring New York City's Water Supply: Condition Assessment of an 18-Foot Diameter Tunnel	Design-Build for Large Conveyance Projects: Constructing a Winning Formula for Success	Intelligent Networks: High Quality Water from Source to Tap	Cold and Waterproof Biological Nutrient Removal	Legal Risks to Collection Systems Posed by Clean Water Act Developments
9:00 AM	DC Water's Blueprint for Mobility: Fire Hydrant Application Development and Deployment	Transforming developer-built project delivery through trackable workflow processes at WSSC Water	Be Water Resilience Ready 1-hr	Benefits and Considerations of External Un-aerated Zones When Upgrade Existing Facilities for Nutrient Reduction	ETHICS Ethics and Water Professionals
9:30 AM	Improving the PCCP Condition Assessment Prioritization Method by Incorporating AFO Monitoring Data Record Analysis.	AlexRenew's RiverRenew Tunnel System Fixed-Price, Design-Build Procurement in the Time of COVID-19		Municipal Enhanced Nutrient Removal Plant Operations: Common Issues, Remedies, and Opportunities for Operational Efficiency	
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1:00 PM	Flying Blind No More: Using Edge Analytics to Improve Pump Performance	Tap Into Your Data To Improve Your Water System Operations	Converting Quarries into Reservoirs - Geotechnical Design Considerations	New Primary Bio-Filter Achieves High-Rate Treatment for Wet-Weather Inflows	Comparison of Effectiveness and Cost of High- and Low-Pressure Smoke Testing Methods
1:30 PM	Title: Using Technology for Condition Assessments to Promote Safety	Managed Aquifer Recharge: An Emerging Integrated Water Management Tool Along the Coastal Plain	The Fullerton Project: Constructing 63MG of Finished Water Storage for the Baltimore Water System	Aquatic uranium removal by amino-functionalized porous silica with customizable pore characteristic --- efficiency and mechanism study	Multi-Jurisdictional Pumping Station Consolidation Addresses Environmental Concerns
2:00 PM	Getting the Big Picture: Digital Mapping of Pipeline Corridors and the Assessment of Environmental Conditions as Part of a Complete GIS Map	Rapidly reducing unaccounted for water - Ultrasonic water meters that continually hear, measure and report data on potential leaks that cant' be seen	Guilford Finished Water Reservoir Improvements	Back River WWTP Headworks Improvements: A Project of Large-Scale and First-Time Challenges	When Streams and Sewers Collide: Responding to a Sewer Emergency with a Long-Term Vision in a Short Duration
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3:30 PM	Using Geofluvial Principles to Inform the Risk-Based Prioritization of Sewer Stream Crossing Inspections	System Development Charges: Funding Growth in the Chesapeake Region	The Latest in Water Main Condition Assessment Tools & Technology	A tale of two pilots: comparing a WAS-only thermal hydrolysis process vs. conventional THP	One size does not fit all – Finding the right balance in approach to upgrading a sewage pumping station for a small service area
4:00 PM	Managing Aerial Sewer Crossings in Washington DC	Data Informed Policy Making for Septic-to-Sewer Connection Program	Unique Challenges of Rehabilitation of 66- and 72-inch Water Main in the Heart of Washington, DC	Thermal Hydrolysis – Lessons Learned from 20 Years of THP Design Integration	Holmes Run Pump Station Rehabilitation Design – The BIM Genesis of a Vertical Infrastructure Digital Asset Lifecycle
4:30 PM	DC Water's Asset Registry: Mapping Service Line and Sewer Lateral using Trimble Technology	Anne Arundel County's Integrated Management Approach to Long-Term TMDL Compliance	Securing Water Service for a Maryland Community's Future	Combining Thermal Hydrolysis and Thermal Drying: Process Optimization, Energy Recovery, and Lifecycle Costs	Rehabilitating a Failing 24" PCCP Forcemain with Fusible PVC

## Thursday September 2, 2021

	<b>Room 201-202 Asset / Utility Management</b>	<b>Room 203-204 Stormwater</b>	<b>Room 205-206 Water System Infrastructure</b>	<b>Room 215 Wastewater Treatment</b>	<b>Room 217 Wastewater Collection Systems</b>
8:30 AM	Merging Bottom-up Transformation with Top Level Asset Management Strategy... a Case in Organizational Change Management	Federal funding supporting local priorities: Case studies involving Chesapeake Bay TMDL and Resiliency	Managing Underground Linear Assets using The Utilis Satellite Based Leak Detection Program	The Most Comprehensive Study by IRSTEA/INRAE' on BDP's advanced technology of Low DO and High Efficiency of Biological Nitrogen and Phosphorus Removal	Delivering a Maximum Value in a Compact Footprint: CDCA's 24 MGD Self-Cleaning Wet Well Pump Station
9:00 AM	How Smaller Communities Can Do More With Less	DC Water's Green Infrastructure Design Challenge Parks Project	Proactive Flushing of Water Mains to improve Disinfectant Residual and Mitigate Water Discoloration	State-of-the-Art Suboxic Nitrate and Phosphorus Removal Treatment in US Cold Climate BNR Facilities	How the COVID-19 Challenge Illuminated Opportunity Transformational Change with Collection System Maintenance
9:30 AM	Infrastructure Asset Management	Construction of Stormwater Management Facilities to meet permit requirements – Not as easy as it sounds!	Designed. Bid. Built: Considerations from the Contractor and Consultant on the Clinton Zone Transmission Main	Noman M. Cole Pollution Control Plant Greenhouse Gas Reduction: We Do Our Part	Using Smart Infrastructure for Stormwater Capture
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11:00 AM	Development and Implementation of a Sustainable Condition Assessment Program for Water Distribution and Transmission Mains	Development of a Climate Action Plan to Improve Resilience of Municipal Infrastructure	Treatment of PFAS in Well Water: Assessment of Removal by Granular Activated Carbon and Ion Exchange	Let's Start-Em Up! Efficiently Integrating Digester Start-up into Plant Operations	When Best-Laid Plans Go Awry: Adapting BEM Deployment to Meet Specific Project Challenges
11:30 AM	The Day After Pipe Inspection...What Do I Do With the Data!!	Pluvial Flooding Vulnerability Assessment and Planned Mitigation in Clover Hill, Frederick County, MD	Suspended Ion Exchange Pre-treatment for Dissolved Organic Carbon Removal	Hair Today, Gone Tomorrow!	Comprehensive Force Main Inspection Using Non-Destructive Testing
12:00 PM	Reestablishing the Structural Integrity of Baltimore's Water Transmission System	Safety and Resiliency for the once Flood Prone Huntington Neighborhood	Review of technologies to mitigate opportunistic pathogen occurrence in municipal drinking water	Design-Build Innovations for the new Port Deposit WWTP	"COVID-19 Modern Trash Loading Proves Sewage Pump Clog Resistance Can Not Be Predicted By Impeller Throughlet Size"
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2:00 PM	Elevated Water Storage Tanks and Cellular Antennas: Untangling the Web of Compliance Requirements and Ensuring Long Term Service of the Asset	Visualizing Innovative Treatment – Electronic O&M Development for Information Storage and Access...and Better Biosolids	Identification of Lead Service Lines Through Water Testing	Mythbusters - What can Anaerobic Digestion Really Do?	The HGL Control Structure - "The Heart of the River/Renew Tunnel System"
2:30 PM	The Value of System Control: Lessons Learned from the Chain Bridge Water Main Break	Journey to DC Water's High-Performance SCADA Interface: Utilizing Situational Awareness to Encourage Operational Optimization.	Using LiDAR Technology to Untangle the Complicated Web of a Water Treatment Plant Pipe Gallery	Using Customer Feedback as a Guide for Selecting a New Solids Handling Technology for Kent County, DE	Mitigating Urban Flooding in a Combined Sewer Area: A Philadelphia Case Study
3:00 PM	Break Reduction/Life Extension For Municipal Water Pipelines	NOT your Average O&M Manual	Algae and Cyanotoxin Source to Treatment Update for Toledo's Collins Park WTP	Turning Exceptional Quality Biosolids into a Marketable Product	DC Water at Work: Washout Mitigation of Potomac Interceptor from recent record breaking flooding storms
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4:00 PM	Keeping an Eye and an Ear on the "Big Inch"	Smart Water Utility Improvements with AI, GIS-Data Analysis, Digital Technology	GAC or IX for PFAS Removal: A Side-by-Side Bench-Scale Comparison Using Improved Methodologies	Successfully Building and Commissioning a Biosolids Belt Dryer System – Lessons Learned at the Little Patuxent Water Reclamation Plant	Permitting from A to Z - NEPA EA, ARPA, Section 106, Section 408, JPA, ESC, SUP, FONSI with NPS, USACE, MDE, MHT, SHA, CSX, DNR for the CSO System

4:30 PM	AlexRenew's "Smart Utility" Monitoring Technology	AI Enabled Utilities Across the Entire Water Cycle	Turning an Aging Lime Softening Water Treatment System into a State of the Art Membrane MF/NF Treatment System	Sludge Conditioning and Renewable Natural Gas at the Capital Region Water AWTF	Will My Pump Stations Flood? A summary of Baltimore County's Flood Resiliency Study
5:00 PM	Underground Utility Protection Considerations and Measures	Framework for becoming the Smart Utility of the Future - Water Research Foundation Project 5039	Ozone Pretreatment- Is It the Best Approach for Improving Membrane Productivity?	Utilizing Progressive Design-Build Delivery to Optimize Capital Spending and Drive Schedule	B Street/New Jersey Avenue Trunk Sewer Rehabilitation and Cleaning Project

## Friday September 3, 2021

	Room 201-202 Wastewater Treatment and Solids Processing	Room 203-204 Utility Management	Room 205-206 Water System Infrastructure	Room 215 Wastewater Treatment	Room 217 Wastewater Collection Systems
8:30 AM	Pathogen log-removal credits for membrane bioreactors in potable reuse systems	Understanding the Risk and Resilience Assessment and Emergency Response Plan Requirements under America's Water Infrastructure Act.	Critical Steel Water Main Condition Assessment on the Hill	Using CFD Modeling to Visualize and Improve Granular Sludge Separation	ETHICS Knowing When You're Standing on the Edge of an Ethical Cliff
9:00 AM	Delivering the Benefits of Sidestream RAS Fermentation: Full-scale Experience at Charlotte Water's McAlpine Creek WWMF	Water Contamination Incident Preparedness: Analytical Support Planning	Looking at Lead from a Different Perspective - the Role of Water Quality Profiling/Sequential Sampling	Impact of Thermal Hydrolysis Pretreatment and Anaerobic Digestion on the Formation of Dissolved Organic Nitrogen Recalcitrant to Aerobic Incubation	Risk Management on the Potomac Interceptor
9:30 AM	What did we learn from the full-scale implementation of the continuous flow aerobic granular sludge process using an external selector?	Show Me the Money! Exploring Utility Workforce Retention and Compensation; Harford County, Maryland DWS	An Incentivized Approach to Replacing Lead Water Service Lines	Coagulant/Flocculant 101 – Basic Chemistry, Handling/Storage, Activation/Mixing, and Optimization	Clearwater Challenge- Pitch contest to look for innovation in inflow and infiltration
10:00 AM	Demonstration of Sidestream Enhanced Biological Phosphorus Removal at WSSC Water	Educating Essential Workers Through Healthier Waterways: RiverRenew Training Modules	Soup to Nuts: Evolution of Water Main Replacements to Complete Streets Projects	The role of online instrumentation in Enhanced Nutrient Removal (ENR)	What Lurks Beneath: T-Lock lined Vault and Manholes Condition Assessment and Renewal
10:30 AM	Adaptive Mixing and Better Biological Nutrient Removal	Mentoring Youth in Underserved Communities Benefits both Students and Water Sector Workforce	Plan C: When CIPP Lining Fails Under I-95	Concepts and Considerations for Flow Through Aerobic Granular Sludge Processes	It Still Runs! A Sewer Lift Station Condition Assessment
11:00 AM	Enhanced Domestic Primary Wastewater Treatment Utilizing Pile Cloth Media Filtration for Operational Savings and Sustainability	Development of an automatic dispenser to supply water in the Ger Area of Ulaanbaatar, Mongolia	Trust the Process – the Washington Suburban Sanitary Commission's Standardized Evaluation Process for Systemwide PCCP Replacement	Plant Analysis in an Era of Unpredictable Weather	

## Tuesday August 30, 2021 Pre-Conference Workshop

Room 201-202
Pre-Conference Workshop: PFAS (3 hours)
Process Credit Water and Wastewater: 6920-21-03
8:30 AM to