

Session Number	Session Title	Session Description	Date	Start Time	End Time	Total Credits Avail.	Mgmt - Bus - Financial	Tech - Engin	Water	Wastewater	Industrial	Disposal	Air Quality & Odors	Collections	Stormwater-Weather-Watershed Mgmt Supplemental
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OGS	Opening General Session	Kick off the WEF Collection Systems & Stormwater Conference with an energizing Opening General Session that brings together industry leaders, innovators, and changemakers. Hear inspiring remarks from WEF leadership, technical community experts, and regional partners, all setting the stage for a dynamic and forward-looking conference. The session features engaging keynote speakers, Quisha Light from City of Portland and Wendell Baskins of the Oregon Trail, who will share unique perspectives to set the tone for the conference.	7/9/2026	8:30 AM	10:00 AM	1.5									
S01	Session 01: Designing for Storms That Haven't Happened Yet	Preparing for extreme events through advanced modeling and asset repurposing is the theme. Presentations cover using real historical storms (via NEXRAD data) for model validation and design, repurposing retired assets like the Port Gardner Storage Facility for wet-weather storage and CSO reduction, and decade-long modeling lessons from Joliet that inform capital decisions. Attendees will learn practical approaches to designing for non-stationary conditions.	7/9/2026	10:30 AM	12:00 PM	1.5		1.5	X	X				X	X
S02	Session 02: From Paper to Pavement - Making It Happen	Implementation successes in collection and stormwater infrastructure are shared. Topics include replacing an interceptor through a Colorado ski town with creative community coordination, thermal curing of CIPP with guidance on interpreting monitoring data, and large-scale storm sewer upgrades in Alexandria, Virginia using double box culverts and enhanced inlets. Attendees gain practical construction and delivery lessons.	7/9/2026	10:30 AM	12:00 PM	1.5		1.5		X		X		X	
S03	Session 03: Maximizing Value - Asset Management Strategies for CS	This session demonstrates high-impact asset management strategies for combined sewer systems that deliver measurable resilience and compliance benefits. Case studies include data-driven modernization of large-scale CSO facilities with gate monitoring enhancements, Oregon City's targeted approach to private-side laterals for I/I reduction, and emergency interceptor repairs within federally regulated levees. Practical lessons in risk management, staging, and real-time situational awareness are shared.	7/9/2026	10:30 AM	12:00 PM	1.5		1.5						X	
S04	Session 04: Clearing the Air - Odor in Collection Systems	This foundational session provides a comprehensive overview of odor generation, emissions, and community impacts in wastewater collection systems. Attendees will learn to identify key odor constituents (including sulfides and non-H ₂ S compounds), understand sulfide generation and corrosion mechanisms, analyze airflow dynamics in sewers, and recognize how odor perception influences control system design. Effective public outreach and complaint response strategies are also emphasized.	7/9/2026	10:30 AM	12:00 PM	1.5 PDH		1.5		X			X	X	
S05	Session 05: Digitizing the Utility - The Future of Operations	This session showcases digital tools that are modernizing utility operations and asset management. Presentations cover Pittsburgh's evolution of small-diameter sewer rehabilitation through digital prioritization and risk assessment, reusable PLC function block libraries that reduce commissioning time and operator training, and innovative methods for identifying and quantifying inflow and infiltration. Attendees will discover how digitization drives capital savings, automation consistency, and overall system performance.	7/9/2026	1:30 PM	3:00 PM	1.5	1.5								
S06	Session 06: Stormwater Planning in Action - Case Studies & Lessons Learned	Real-world stormwater planning case studies illustrate innovative, multi-objective solutions. Topics include adapting subsurface gravel wetland technologies for emerging contaminants and baseflow treatment, neighborhood-scale cloudburst management using gray-green infrastructure in NYC, and multi-benefit regional facilities that restore historic drainage patterns while managing risk. Attendees will gain transferable implementation insights.	7/9/2026	1:30 PM	3:00 PM	1.5		1.5	X	X					X
S07	Session 07: Close Enough? Getting the Models to Behave	Model calibration, validation, and performance quantification are critically examined. Presentations cover a causal inference framework for measuring sewer rehabilitation impacts on dry-weather flow, machine-learning evolutionary algorithms for wet-weather calibration, and lessons from calibrating complex 800+ lift-station collection system models. Attendees will leave with implementable strategies for more accurate and defensible modeling.	7/9/2026	1:30 PM	3:00 PM	1.5		1.5		X				X	
S08	Session 08: Because the Rules Say So	Regulatory compliance and permitting challenges for wet-weather infrastructure are addressed. Topics include integrated planning at Portland International Airport to meet dual stormwater permits, using recent Supreme Court reasoning to resolve long-standing Clean Water Act issues, and interim inline storage solutions for consent decree compliance in small systems. Practical, forward-looking strategies for navigating evolving regulations are provided.	7/9/2026	1:30 PM	3:00 PM	1.5	1.5		X	X					X
S09	Session 09: Measuring What Matters - GI Performance & Outcomes	This session focuses on the latest national requirements and trends in green stormwater infrastructure (GSI) performance monitoring. Topics include advancing monitoring and sampling programs, digital technologies that improve efficiency, and the role of annual quantified metrics and retrofit requirements in future MS4 compliance. Attendees will gain practical guidance for tracking outcomes and demonstrating GSI value.	7/9/2026	3:30 PM	5:00 PM	1.5		1.5	X	X					X
S10	Session 10: I Got 99 Problems and the Data is Most of Them (FM Data to AI)	This hands-on interactive session explores the real-world journey of turning raw flow monitoring data into powerful machine learning applications for collection systems. Participants will tackle practical questions around data quality, processing, feature selection, model development, and implementation challenges commonly faced by utilities. Through guided exercises and collaborative problem-solving, attendees will gain actionable skills and confidence in applying data science techniques to extract meaningful insights and drive smarter operational decisions.	7/9/2026	3:30 PM	5:00 PM	1.5		1.5	X	X				X	X
S11	Session 11: Managing Stormwater Systems for Resilient Communities	Integrated, multi-benefit approaches to stormwater asset management are highlighted. Presentations introduce watershed-lens frameworks linking hydrology, hydraulics, and structural fragility for flood risk prioritization; placemaking as a tool to align asset and community needs; and comprehensive softscape condition assessment programs for green stormwater infrastructure. Practical examples show how to deliver resilience while enhancing community value.	7/9/2026	3:30 PM	5:00 PM	1.5		1.5	X	X					X

S12	Session 12: Watershed Approaches for Integrated Solutions	Holistic watershed-scale solutions for climate-ready communities are explored. Presentations showcase collaborative digital tools and partnerships in Honolulu, data-driven prioritization frameworks integrating pollutant loading, climate projections, and equity in Puget Sound, and lessons from scaling green infrastructure retrofits in NYC urban parks. Emphasis is placed on partnerships, data infrastructure, and multi-benefit outcomes.	7/9/2026	3:30 PM	5:00 PM	1.5		1.5	X	X							X	
S13	Session 13: Green Infrastructure & Sewer Separation - Integrated Approaches	Integrated green infrastructure and sewer separation projects that deliver multiple benefits are examined. Presentations cover NYC DEP's precast porous concrete panel installations, regional stormwater treatment and sewer separation in Everett leveraging grant funding, and creative solutions for managing wet-weather flows in separated but interconnected systems. Attendees will learn how to combine gray and green solutions for flood reduction, CSO control, and community resilience.	7/10/2026	8:30 AM	10:00 AM	1.5		1.5	X	X							X	X
S14	Session 14: All Models Are Wrong—Some Are Useful	This session examines how improved modeling practices and risk frameworks lead to better rehabilitation and planning decisions. Presentations cover rethinking consequence-of-failure — likelihood-of-failure for sewer prioritization, an area-weighted geometric mean approach to I/I screening, and the hidden hydrology of lost streams shaping modern stormwater challenges. Practical lessons help utilities make more defensible decisions.	7/10/2026	8:30 AM	10:00 AM	1.5		1.5									X	
S15	Session 15: Battling Corrosion & Odor - Challenges and Innovations	This session presents data-driven innovations that shift corrosion and odor management from reactive troubleshooting to proactive, strategic asset protection. Topics include advanced sewer process modeling for cost-effective operations, real-time low-cost electrochemical sensor networks for detecting indoor sewer-gas intrusion, and strategies for managing corrosive gases to safeguard infrastructure while reducing community complaints. Attendees will understand how to achieve significant operational efficiencies and improved outcomes.	7/10/2026	8:30 AM	10:00 AM	1.5		1.5		X						X	X	
S16	Session 16: Planning for Tomorrow - Innovations in Stormwater Strategy	Forward-looking stormwater planning innovations take the spotlight. Case studies include multi-design-storm optimization to mitigate unprecedented flooding in Dearborn, interactive digital master plans that integrate modeling and community feedback, and unified people-parks-stormwater solutions that deliver multiple community benefits. Attendees will learn cutting-edge optimization, engagement, and resilience strategies.	7/10/2026	8:30 AM	10:00 AM	1.5		1.5	X	X								X
S17	Session 17: Robot Knows Best - AI Takes Over Your System (In a Good Way)	This session explores how artificial intelligence is transforming water and wastewater system operations through practical, data-driven applications. Presentations demonstrate high-resolution pressure monitoring combined with machine learning to uncover hidden asset performance issues, the use of historical data for prioritizing gravity sewer inspections without new capital investments, and AI-enabled forecasting integrated with radar, sensors, and hydraulic modeling for urban flood resilience. Attendees will gain actionable insights into implementing AI solutions that improve reliability, efficiency, and decision-making across collection and stormwater systems.	7/10/2026	10:30 AM	12:00 PM	1.5		1.5	X	X							X	X
S18	Session 18: Adapting to Extremes - Climate Resilience in Water Systems	This session equips utilities with proven methods for incorporating future climate projections into infrastructure modeling and design. Presenters share Seattle's approaches to integrating climate-informed precipitation into collection and stormwater models, Columbia River risk modeling that accounts for sea-level rise, river stage changes, and hydrologic shifts, and WUCA's climate-informed design guidance used by Portland and other utilities. Attendees will leave with practical strategies to move beyond historical hydrology and build truly resilient systems.	7/10/2026	10:30 AM	12:00 PM	1.5		1.5	X	X								X
S19	Session 19: Next-Gen Tools for Collection System Management	Explore emerging technologies that are redefining how utilities monitor, inspect, and manage collection systems. Sessions highlight real-time condition assessment with free-floating devices, prioritized meter maintenance programs that keep hydraulic models current, and emerging practices for smart sewer systems including IT integration and sensor technology guidance. These next-generation tools deliver more efficient inspections, better data utilization, and improved system intelligence.	7/10/2026	10:30 AM	12:00 PM	1.5		1.5		X							X	
S20	Session 20: From Plan to Practice - Operational Excellence in CS	This session bridges master planning with real-world operational excellence in collection systems. Topics include integrating operational flexibility through optimization, dynamic master planning with life-cycle cost approaches, and evaluating pump station capacity using available gravity storage in manifolded force main systems. Practical frameworks help utilities enhance capacity planning, adaptability, and day-to-day performance.	7/10/2026	10:30 AM	12:00 PM	1.5		1.5		X							X	
S21	Session 21: Integrated Planning - Aligning Systems, Goals, and Investments	Integrated planning strategies that align wastewater, stormwater, and regulatory goals are featured. Sessions discuss long-term adaptive delivery from a UK perspective with best-value appraisal and customer-weighted criteria, and practical lessons from integrated planning implementations across the U.S. Attendees will understand how to focus resources for efficient environmental results while addressing affordability and deliverability.	7/10/2026	1:30 PM	2:30 PM	1		1	X	X							X	X
S22	Session 22: Your System's Twin (But Smarter and Better Looking)	Discover how digital twins and real-time intelligent systems are elevating stormwater and sewer management to new levels of performance. Sessions cover lessons from a decade of continuous monitoring and adaptive controls in Oregon stormwater facilities, the Kansas City Smart Sewer Digital Twin that unifies disparate sensor data into reliable intelligence, and machine learning frameworks for optimal, risk-based sensor placement in wastewater collection systems. These examples highlight how smart technologies overcome data fragmentation, system topology constraints, and budget limitations to support proactive operations and long-term planning.	7/10/2026	1:30 PM	3:00 PM	1.5		1.5		X								X
S23	Session 23: Optimizing the Network - Smarter Planning Approaches	Advanced optimization and modeling techniques take center stage for smarter collection system master planning. Presentations detail multi-objective optimization used by WSSC to evaluate thousands of strategies under varying scenarios, and automated hindcasting that turns every storm into continuous model validation and insights. Attendees will learn how these tools produce cost-effective, adaptable, and resilient long-term plans.	7/10/2026	1:30 PM	2:30 PM	1		1		X							X	

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