Workshop A: Smart Sewer Applications and Utility Experiences

Additional fees apply

Tuesday, April 9, 2024
8:30 a.m. – 5:00 p.m.

Speakers: Constantine Karos

This workshop offers a comprehensive exploration of Real-Time Control (RTC) applications in wastewater and stormwater collection systems, covering the major steps in the life cycle of an RTC system. Participants will gain a high-level understanding of how RTC empowers systems to make immediate decisions and interventions based on evolving conditions, optimizing system performance without compromising key objectives. The workshop is broken into four 1.5-hour blocks that cover planning, modeling, implementation, and lessons learned from real-word RTC projects. Each block contains some presentation of practical applications as well as an interactive element that gives attendees the opportunity to collectively think about each step in RTC implementation journey. Attendees will develop rubrics for RTC site selection in a hypothetical city, engage in computer modeling exercises to fine-tune RTC strategies and compare them to conventional static controls, play a small group D&D-style turn-based game that simulates the design and implementation process of an RTC asset, and participate in an engaging panel discussion with utility experts who offer experiences and lessons learned.
Workshop B: Don’t Forget Your Manholes! How to Identify and Properly Select Rehabilitation to Extend Service Life

Additional fees apply

Tuesday, April 9, 2024
8:30 a.m. – 5:00 p.m.

Speakers: Timothy Sumner, Crawford Murphy & Tilly; Firat Sever, QuakeWrap; Karol Giokas, RJN Group; Don Rigby, Madewell Corporation; Mike Hoffmeyer, OPIC LLG; Barry Howell, Visu-sewer, Inc.; Britt Babcock; Tim Back, Back Municipal Consulting LLC; Frederick Wu, MWRD

This workshop is intended to offer participants an opportunity to learn about or expand their knowledge of the different classes of manhole (i.e., structure) rehabilitation, what these classes entail and the advantages and disadvantages of the various techniques on the market. This workshop will address structures in sewage and storm collection systems (manholes, inlets & catch basins). It will also cover condition assessment and using the data to determine whether to choose rehabilitation vs. replacement, as well as the associated cost. Participants will better understand the prevailing rehabilitation methodologies in the industry, when and where to apply those methodologies and that there may be more than one suitable technique to reduce I&I and improve structural condition. It will also expand the participants’ knowledge base and allow them to be more confident in selecting collection system structure rehabilitation practices for their projects.
Workshop C: Financing Stormwater Infrastructure in Communities: WIFIA, SRFs, and Private Finance, and Technical Assistance via EPA Environmental Finance Centers
*Additional fees apply*
*Tuesday, April 9, 2024*
*1:30 p.m. – 5:00 p.m.*

**Speakers:** Dallas Shattuck, Kavita Mak, U.S. EPA; Sanjiv Sinha, CIS; Derek Gardels, Julie Stein, Alex Yescas, HDR; Bill Schleizer, Delta Institute

This workshop focuses on the WIFIA program, SRFs, private finance, and EFC technical assistance to address stormwater challenges in communities across the United States.

To start the workshop, we will provide an overview of the WIFIA program and describe WIFIA's water infrastructure-related eligibilities, focusing on stormwater. Additionally, we will describe the benefits and flexibilities of WIFIA financing, including single fixed interest rates, customized repayment schedules, opportunities for subordination, long repayment periods for borrowers, and the ability to pair with other types of debt. The City of San Diego's Stormwater Capital Improvement Program will be presented as a case study of a city using a WIFIA loan for the design and construction of stormwater improvement projects including pump stations, green infrastructure, stormwater rehabilitation, stream revitalization, and stormwater capture. San Diego's WIFIA loan will provide over $359 million in WIFIA assistance to the city, of which the City will match $374M (51%) of the $733M total under the loan agreement. Information about other stormwater programs using WIFIA funding will also be shared to compare to the City of San Diego case study.

Next, we will share examples of mega-scale greening programs via SRFs and private finance instruments. These programs will also focus upon socio-economic benefits accrued to EJ communities. Finally, we will provide an overview of available technical assistance (TA) for financing water infrastructure—which can be a labyrinth to navigate— for EJ communities. Recent federal investment, as well as substantially expanded infrastructure and TA programs (including the number and roles of Environmental Finance Centers) provide a deeper and vaster array of opportunities for communities and practitioners to consider. This portion of the workshop includes materials and resources that will cover the spectrum of (Great Lakes region-focused) water TA.
Opening General Session
Wednesday, April 10, 2024
8:30 a.m. – 10:00 a.m.

More information about the Opening General Session is coming soon!
Session 01: U.S. EPA Regulatory and Policy Update Session
Wednesday, April 10, 2024
10:45 a.m. – 11:45 a.m.

This session will provide an update on national and regional regulations and policies related to wastewater collection systems and stormwater management. Speakers from U.S. EPA's Office of Wastewater Management, in Washington, DC, and Region 1, in Boston, MA, will also answer questions from attendees. More information and speaker listing is coming soon!
Session 02: Community Engagement  
Wednesday, April 10, 2024  
10:45 a.m. - 11:45 a.m.

10:45 a.m.  The Viable Utility Reserve: A Unique Approach to Community Engagement with Wastewater Utilities  
Christyn Fertenbaugh, Bob Taylor, NCDEQ

11:15 a.m.  Everything, Everywhere, All at Once: Proactively Engaging the Community During High-Profile Water Construction Projects  
Taylor Rippe; Alex Miller, Parson + Associates

Alternate  2022 Clean Watersheds Needs Survey: Collection System and Stormwater Needs  
Elisabeth Schlaudt, Rachel Gold, Environmental Protection Agency; Joshua Klein
Session 03: The ROI of Resiliency  
Wednesday, April 10, 2024  
10:45 a.m. - 11:45 a.m.

Speakers: Paris Neofotistos, SmartCover; Travis Pike, City of Winter Haven, FL; Robert Bush, Panama City, FL; Michael Sweeney, Tim Noyes, Toho Water

The presentations and corresponding panel discussion will showcase how 3 Florida entities have embraced smart sewer technology to provide real-time network visibility, especially during storm events. The session will detail application of the technology, integration into business processes, associated analytics, and the noted return on investment - recognized savings in fees and fines; avoidance costs in manpower, equipment and infrastructure; as well as intangible costs of protecting the environment and the safety of both the staff and public.
Session 04: Stormwater Reuse
Wednesday, April 10, 2024
10:45 a.m. - 11:45 a.m.

10:45 a.m. Decentralized Stormwater Reuse: A Sustainable Solution in The Bronx
Dayton Marchese, OptiRTC, Inc

11:15 a.m. Go with the Flow: Investing in Multi-Benefit Urban Stormwater Capture and Use
Jim Rasmus, Stantec

Alternate LB MUST: Purification of Urban Run-Off & Stormwater For The City Of Long Beach.
Brian Butters, Purifics Water Inc; Tony Powell
Tour A: Hartford MDC’s South Hartford Conveyance & Storage Tunnel Project
Additional fees apply
Wednesday, April 10, 2024
1:00 p.m. – 4:00 p.m.

One of the components of MDC’s Long-Term Control Plan for CSO’s and Integrated Plan was storage for wet weather events. The South Hartford Conveyance & Storage Tunnel (SHCST) is a five-contract project totaling over $600M that fulfilled the storage requirement in an area where separation projects were taking too long and becoming too costly. Construction of the actual 4+ mile long, 18-foot diameter tunnel is complete and presently construction of the 50 mgd pump station, which will empty the tunnel and pump the flow to the Hartford Water Pollution Control Facility, is underway. Join us as the MDC team presents the entire project to you and then takes you on a tour of the pump station construction site. We will also travel to West Hartford to tour drop shafts and the odor control facility, located at the western end of the 4-mile tunnel, which was the retrieval shaft for the tunnel boring machine.
Session 05: Collaborative Initiatives  
Wednesday, April 10, 2024  
1:30 p.m. - 3:00 p.m.

1:30 p.m.  Delivering Projects using Community Based Partnership to meet Chesapeake Bay TMDL Requirements in Prince George’s County, MD and Key Lessons Learned  
Srikanth Gorugantula, HDR; Roland Jones, Corvias Infrastructure Solutions (CIS); James Lyons, Prince George’s County Department of Environment, MD

2:00 p.m.  Lessons Learned from North Carolina’s Falls Lake: A Regional, Collaborative Approach to Meet Nutrient Reduction Requirements  
Mary Tchamkina, Christina Conchilla, Raftelis; Emily Scerbo, Tighe & Bond Inc

2:30 p.m.  Introducing a Series of New ASTM Standards Relating to Specifications and Performance Protocols for Stormwater Control Measures  
Mark Miller

Alternate  Will the Oldest City in New Hampshire Adopt the First Stormwater Fee?  
Kelly Westover, Stantec; Gretchen Young, City of Dover; David Hyder; Bill Arcieri, VHB
Session 06: Pumping Operations
Wednesday, April 10, 2024
1:30 p.m. - 3:00 p.m.

1:30 p.m. The High-Stakes Wager on Multiple Bypass Operations in the Entertainment Capital of the World — the Las Vegas Strip
Kristianne Fallon, Christopher Proudfoot, Clark County Water Reclamation District

2:00 p.m. How to Use condition Assessment Data to Improve Force Main and Lift Station Design and Operation
Edward Carpenetti, Sunakshi Hada, Black & Veatch

2:30 p.m. Large Pump Stations, Small Details — How To Ensure Successful Startups
Vito Cimino, MWH Global

Alternate Bypass Pumping and the sulfide challenge - solutions for remedying the unique safety, odor and corrosion challenges faced in temporary bypass pumping projects due to Hydrogen Sulfide.
Sean Trainor, Xylem / Evoqua Water Technologies
Session 07: Combined Sewer Overflow
Wednesday, April 10, 2024
1:30 p.m. - 4:45 p.m.

1:30 p.m.  Bar Harbor Systemwide Conveyance Assessment: How Smart Controls Helped the Town Develop a Cost-Effective Solution to Meet CSO Mitigation Requirements
Andrea Braga, Jacobs; Bethany Leavitt

2:00 p.m.  Combined Efforts for Combined Sewers: Benefits and Challenges of Combining the Collection System Models of the Massachusetts Water Resources Authority and the Cities of Cambridge and Somerville, MA to Support Development of Coordinated Updated CSO Control
Erika Casarano, Donald Walker, Tyler Brinson, AECOM; Jeremy Hall, Wenley Kilbride, Massachusetts Water Resource Authority; Catherine Woodbury, Cambridge DPW; Mike DuPont, Stantec; Lucica Hiller, City of Somerville DPW Engineering Div; David Bedoya

2:30 p.m.  A City with a Plan is a City with a Vision. Developing the City-Wide Sewer Separation Master Plan in Chelsea, MA
Lou Mammolette, Dewberry Engineers Inc.

3:45 p.m.  30 Years in the Making — The Final Phase of the Largest Public-Works Project in Rhode Island History is Taking Shape
Melissa Carter; Christopher Feeney; Kathryn Kelly, Narragansett Bay Commission

4:15 p.m.  Modernizing CSO Notification and Forecasting with Digital Tools
Jamie Lefkowitz, Andrew Goldberg; Greg Coyle, Brown and Caldwell

Alternate  Mitigating CSOs Through Design of a New Storage Tank and Pump Station at the Gateway to the Town of Bar Harbor, ME
McKenzie Schmitz, Jacobs; Bethany Leavitt

Alternate  Innovative Design-Build Implementation of CSO Storage in Lewiston, Maine
Kate Mignone, AECOM; Travis Peaslee, Lewiston Auburn Water Poll Ctl; Gregory Heath, AECOM; Owens McCullough
Session 08: Tidal and Sea Level Rise Impact
Wednesday, April 10, 2024
1:30 p.m. - 3:00 p.m.

1:30 p.m.  J. M. Pike Park, Protecting and Collecting Water for Modesto’s Future
Millicent Cowley-Crawford, Woodard & Curran

2:00 p.m.  Increasing the Resilience of Vulnerable Coastal Wastewater Infrastructure in Southeastern Massachusetts to the impacts of Sea Level Rise
Marc Drainville; Anastasia Rudenko, GHD

2:30 p.m.  Designing a Pump Station Replacement within Tsunami and Sea Level Influenced Zone
Erik Waligorski, Tyler Whitehouse, Carollo Engineers

Alternate  Evaluation of Collection System Design Storms: Survey of Large Utilities
John Norton, Great Lakes Water Authority; Daniel Wright, University of Wisconsin; Kevin Jankowski; Branko Kerkez; Mohammad Hussain, University of Wisconsin; Navid Mehram
Session 09: Integrated Planning  
Wednesday, April 10, 2024  
3:45 p.m. - 4:45 p.m.

3:45 p.m. Integrated Approaches to Nitrogen Management Planning: Southeastern Massachusetts Case Studies  
Anastasia Rudenko, GHD; Marc Drainville

4:15 p.m. Financial Roadmap to Resilience: Scaling Site Specific Modeling for more Realistic Watershed-Wide Planning  
Curtis Smith, Stantec

Alternative: The Sewering of an Entire Town: How Chatham, Massachusetts is Planning to Gain Complete Control of Their Wastewater in order to Protect the Coastal Environment  
Marc Drainville; Anastasia Rudenko, GHD
Session 10: Asset Management Software
Wednesday, April 10, 2024
3:45 p.m. - 4:45 p.m.

3:45 p.m. Visualizing Success: Sewer Asset Management with Power BI
Paul Batman, Evan Hunsicker, Arcadis; Robert Roff, Kevin Penoza, New Castle County

4:15 p.m. Leveraging Artificial Intelligence to Detect Sensor Issues and Operational Problems in Sewer Systems
Katie Deheer, Trinnex
Session 11: Climate Change Resilience
Wednesday, April 10, 2024
3:45 p.m. - 4:45 p.m.

3:45 p.m.  Upgrading Historic Sewer Systems to Prevent Flooding from Increasing Rainfall and Elevated Tailwater Conditions — A NYC Case Study
Joel Kaatz, Arcadis; Blake Montieth, New York City Economic Development Corporation; Roni Deitz; Jordan Salinger, New York City Mayor's Office of Climate and Environmental Justice

4:15 p.m.  NYC Cloudburst Resiliency: Transformational Community Adaptation through Strong Partnerships
Anni Luck, Hazen and Sawyer; Alan Cohn, John Brock, Pinar Balci, Melissa Enoch, Roopesh Joshi, NYCDEP; Sandeep Mehrotra, Mihir Gupta, Kevin Obey, Hazen and Sawyer

Alternate  Make it Rain: Funding Projects to Address Climate Change, Water Quality, and Unmet Needs
Zachary Henderson, Woodard & Curran
Session 12: Flood Mitigation Planning
Thursday, April 11, 2024
8:30 a.m. - 10:00 a.m.

8:30 a.m.   Log Jams, Ice Jams, Traffic Jams - OH MI!
            Brandon Wong

9:00 a.m.   Union Square Stormwater Mitigation Program
            Emerson Olander; Jonathan Smith, City of Somerville

9:30 a.m.   After an Extreme Storm: Madison WI's Approach to Flood Mitigation Planning
            Michael Wegner, Brown and Caldwell

Alternate   A Blueprint for Flood-Resilient Communities: Using Modern Tools to Identify and Prioritize Solutions
            Matthew Zelin; Matthew Jones, Hazen and Sawyer
Session 13: Smart Collection System Programs
Thursday, April 11, 2024
8:30 a.m. - 10:00 a.m.

8:30 a.m.  Chattanooga, TN Smart Sewers - Pilot Launched!
Xavier Pedeux, Jacobs; Mark Heinzer, City of Chattanooga

9:00 a.m.  City of Houston Uses Hydraulic Model Database Management for Quality Control of 38 Wastewater Service Areas’ Planning and Management
William Kuehne; Dariela Ruiz-Calderon, Omega; Fazle Rabbi, Pratistha Pradhan, City of Houston

9:30 a.m.  Digitalization of Odor, Corrosion and Safety Management in Sewer Networks - The City of Kalamazoo
Chaim Kolominskas, Envirosuite; Jim Cornell, Ryan Stoughton, City of Kalamazoo; Andres Quijano, Envirosuite

Alternate  Innovative Systems for Improving Collection System Asset Management
John Marciszewski, SmartCover; Donald Shields, New Jersey American Water
Session 14: Alternative & Innovative Collections Systems
Thursday, April 11, 2024
8:30 a.m. - 10:00 a.m.

8:30 a.m.  Charlotte Water’s Use of a Risk Management Tool to Effectively Mitigate Sanitary Sewer Overflows
Jason Bromirski, Charlotte Water; Tim Schempp, SmartCover Systems

9:00 a.m.  Liquid Only Sewer — Bringing Two Small Rural Communities Together
Michael Saunders; Jerry VanAuker, Orenco Systems Inc

9:30 a.m.  How Municipality-Manufacturer Collaboration is Driving Innovation in Chemical-Free Sewer Odor Control
Andrea White, John Crisman, Moleaer; Jay Lovett

Alternate  A Case Study for Predicting the Formation of FOG Deposits in Sewer Systems Using EPA SWMM
Nathan Simmons, Catawba Valley Engineering & Testing; Joel Ducoste, North Carolina State University
Session 15: Asset Optimization
Thursday, April 11, 2024
8:30 a.m. - 10:00 a.m.

8:30 a.m. Potomac Interceptor Vertical Asset Optimization: Using Different Tools to Optimize Efficiency of the Vertical Asset
Abhiram Satyadev, DC Water & Sewer Authority; Eyasu Yilma; Megan Livak, SmartCover Systems

9:00 a.m. Perfecting Defect Coding and Recommendations Using AI: The Power of Optimized QC and Historic Data
Ryan Graham, Jacobs; Purnima Praturi; Courtney Kennedy

9:30 a.m. Jefferson County, Alabama — Leveraging Data Driven Approaches and Tools to Optimize CIP and Achieve Asset Management Goals
Daniel White, Jefferson County Commission; Stephen King; Sean Fitzgerald, Hazen and Sawyer

Alternate Beyond the Map: GIS at the Center of Asset Management
Josh Rhamy, American States Utility Services, Inc. (ASUS)
Session 16: Green Infrastructure and Nature Based Solutions Part 1  
Thursday, April 11, 2024  
10:45 a.m. - 11:45 a.m.

10:45 a.m. The State of Public Sector Green Stormwater Infrastructure  
Barbara Hopkins, Green Infrastructure Leadership Exchange

11:15 a.m. Needle in a Haystack? Found it! [How to locate eligible green infrastructure locations in a dense urban environment.]  
Peter Garvey, Dewberry

Alternate Natural Treatment of Surface Run-off from Urban Catchments  
Dave Walker, Detectronic Ltd
Session 17: Smart Collection System Tools  
Thursday, April 11, 2024  
10:45 a.m. - 11:45 a.m.

10:45 a.m.   Building the Foundation for Collection System AI - Norwalk, CT  
             John Marcin, Veolia; Nikita Bhalerao, Veolia North America; Clure Winfree

11:15 a.m.   Using Data-Driven Analytics for SMART CSO Management  
             Liie Hill, Suibing Liu, Jacobs

Alternate   The Future of Smart Sewer Inspections: How AI Can Save You Time and Money  
             Josh Ford, Burgess & Niple
Session 18: Smart Systems - Stormwater  
Thursday, April 11, 2024  
10:45 a.m. - 11:45 a.m.

10:45 a.m.  Innovative Stormwater Management in Urban New Jersey: A Case Study of the North Hudson Sewerage Authority  
Viktor Hlas, OptiRTC, Inc; Karen Karvazy; Donald Conger, North Hudson Sewerage Authority; Bill McMillan, Jacobs

11:15 a.m.  Maximising Affordable Housing With Minimal Water Environment Impacts — Innovative Pilot For Christchurch, New Zealand  
Joel Wilson; Bridget O'Brien, WSP; Michele McDonald, Christchurch City Council; Glen Hughes, Kainga Ora

Alternate  Using Smart Stormwater Controls to Meet Stormwater Requirements and Preserve the Aesthetic Character of Two Historic Ponds in Harrisburg, PA  
Susan Beck, Jacobs; Claire Maulhardt, Capital Region Water; Andrea Braga; Andrew Potts
Session 19: Asset Management Funding
Thursday, April 11, 2024
10:45 a.m. - 11:45 a.m.

10:45 a.m. How Do We Prioritize and Fix Our Drainage Infrastructure Problems? And How Will We Pay for It?
Brandon Vatter; Mary Tchamkina, Raftelis

11:15 a.m. Race to the Finish Line — Designing and Permitting an ARPA Grant Funded CSO Tunnel in Eight Months
Lin Liang; Timothy Mitchell, Department of Water Resources; Eric Schrader, City of Lynchburg Public Works Utilities Div

Alternate Grandfathered In No More - How South Burlington is Addressing State Stormwater Regulations
David Wheeler, City of South Burlington
Tour B: Navigating the Challenges of Operating one of the Most Complex Flood Control Systems in New England

Additional fees apply
Thursday, April 11, 2024
1:00 p.m. – 4:00 p.m.

The FRMs were constructed by the Federal Government in response to flooding of the Connecticut River in 1936 and 1938 as well as the Park River in 1955. The FRMs result in a levee protected area of approximately 2,800 acres of highly developed residential, commercial, and industrial areas with a population at risk of 26,000 (day) and 5,500 (night). The economic loss due to breach of the Connecticut River FRM is estimated at over $1,000,000,000. The components of the FRMs include Park River FRM and Connecticut River FRM. Join us as the Hartford Department of Public Works presents the two Flood Risk Management Systems and provides a tour of elements of the two systems.
1:30 p.m.  Stormwater Parks — Meeting the Nexus of Community and Water Quality Needs  
Matthew Dalrymple; Dustin Atchison, Jacobs

2:00 p.m.  The Bowtie Demonstration Project: An Urban Wetland Demonstration Project on the LA River  
Jonathan Abelson, Stantec; Serena Zhu

2:30 p.m.  The Wetlands at Long's Park: The City of Lancaster's Park Enhancement and Water Treatment Project  
Daniel Wible; Susan Beck, Jacobs; Angela Brackbill, City of Lancaster, PA

3:45 p.m.  Using Community Based GSI in a CSO Abatement Program  
Brandon Blanchard; Peter Georgetti, Pare Corporation; Kathryn Kelly, Narragansett Bay Commission

4:15 p.m.  Addressing Combined Sewer Overflows in the Brightmoor Neighborhood of Detroit through Community Driven Nature Based Solutions  
Lisa Wallick, Detroit Water and Sewerage Dept; Donald Carpenter; Patrick Droze, Liz Whiddon, OHM Advisors; Eric Wahrman, Anna Timmis, Detroit Water & Sewerage Department (DWSD); Rachel Pieschek, Drummond Carpenter, PLLC

Alternate  Suspended Pavements- Research and Reality  
Albert Key, deeproot

Alternate  Show Me The Money: Putting Together Competitive Grant Proposals for NFWF Programs and Beyond  
Kyle Gray, Throwe Environmental
Session 21: AI and Digital Twins
Thursday, April 11, 2024
1:30 p.m. - 3:00 p.m.

1:30 p.m.  Digital Twin / Al-based unified IOT cloud platform for Smart Integrated Wastewater network management
Leela Krishna Sriramula, SpaceAge Labs Pte Ltd

2:00 p.m.  Sewer Blockage Sensor Placement Optimization and Prioritization Using AI, Advanced Data Analytics, and AGOL Dashboards
Joel Wilson, WCS Engineering; Lucas Djehdian; Kithsiri Tennakoon, Urban Utilities

2:30 p.m.  A Practical Sewer Network Digital Twin: It is not a PIPE dream!
Varun Srinivasan, Trinnex

Alternate  Predicting Treatment Plant Inflows using a Deep Learning-Based Digital Twin for Operational Decision-Making
Richard Loeffler; Abhiram Mullapudi; Nick Mills, Xylem
Session 22: Workforce Development, Recruitment, and Community Collaboration
Thursday, April 11, 2024
1:30 p.m. - 4:45 p.m.

1:30 p.m.  Quantifying the Socioeconomic Impacts and Benefits of Nature Based Floodplain Projects in a Flood Prone Urban Watershed in Pittsburgh, PA
Thomas Batroney; Lisa Brown, Watersheds of South Pittsburgh

2:00 p.m.  Bridging the Gap Between Commitment and Implementation: Strategies for Incorporating Principles of Social Equity and Environmental Justice in Wet Weather Planning
Bryan Rogne, Brown and Caldwell

2:30 p.m.  Advancing DEI through Collaborative Climate Action: Community Stakeholders, the MDC & CT DEEP Partnership
Jeffrey King, The Metropolitan District of Hartford, Connecticut; Biviana Casanova

3:45 p.m.  Priming the Pump: What to do when the talent well runs dry
Ashok Perera, AtkinsRealis; Archana Sharma, Mead & Hunt; Jake Whited; Karen Steele; Lisa Derrigan, GHD; Tshoganetso Masunga

4:15 p.m.  Engendering a Modern Water Workforce
Jennifer Steffens, Opti; Alicia Douglas; Antra Bhatt, UN Women; Sivan Schlecter, WaterRising Institute; Angelita Fasnacht

Alternate  Achieving Equity in Stormwater Investments in the Safe, Clean Water Program in Los Angeles County, California.
Mike Antos, Stantec; Jon Christensen, Peter Roquemore, UCLA; Hayat Rasul, Stantec; Estefany Garcia, Gregory Pierce, UCLA

Alternate  Environmental Justice: Equal Protection from Environmental and Health Hazards
Corey Williams, SmartCover; Christina Ahmadpour
Session 23: Local Case Studies
Thursday, April 11, 2024
1:30 p.m. - 4:45 p.m.

1:30 p.m. Taking Action to Improve Sassaquin Pond with a Watershed-Based Plan
          Zoe Schmitt, Zachary Eichenwald, Bernadette Kolb, Shawn Syde, CDM Smith;
          Jamie Ponte, Justin Chicca, City of New Bedford

2:00 p.m. Adapting Collection System Infrastructure to Changing Flood
          Vulnerabilities - New England Case Studies
          Anastasia Rudenko, GHD; Marc Drainville

2:30 p.m. 15 Years of CMOMs — A Successful and Sustainable New England Model
          Frederick McNeill, Village of Manchester; Benjamin Lundsted, City of
          Manchester, NH

3:45 p.m. Construction of the South Hartford CSO Tunnel
          James Sullivan, AECOM; Susan Negrelli; Thomas Loto, AECOM

4:15 p.m. Advanced Analysis Guides Combined Sewer Separation Along the
          Connecticut River
          Kevin Trainor, William DiTullio, Woodard & Curran; Adam Moskal

Alternate Accelerated Public and Private Sewer and Lateral Rehabilitation to Renew
Infrastructure and Reduce Combined Sewer Overflows in northern Hartford, CT
          Kyah Lucky; Thomas Robbins, Metropolitan District Commission; Jason
          Waterbury, The Metropolitan District; Brian Brown, CDM Smith
Session 24: Surface Water Flow Path Mapping: It Helps with EVERYTHING
Thursday, April 11, 2024
3:45 p.m. – 4:45 p.m.

Speakers: Juli Beth Hinds, Birchline Planning LLC; Amy DeBay, Focused Planning Solutions LLC; Patrick Lach, Hey & Associates, Inc.; Steven Mikulencak, Texas A&M University

Mapping surface water flow paths and depressional areas – the places water flows over the land and accumulates based on topography, structures, and drainage infrastructure – is a powerful and under-utilized tool for public communication, program development. This session will introduce participants to the many applications of ArcHydro® generated flow path and depressional areas mapping for MS4 system planning, land use planning and regulation, prioritizing flood buyouts, and public communication. Surface water flow path mapping is also a uniquely powerful basis for developing more effective and politically realistic land use regulations to limit building, fill, and obstructions in critical stormwater paths.
Session 25: Modeling
Friday, April 12, 2024
8:30 a.m. - 11:45 a.m.

8:30 a.m. Assessing Rehabilitation Techniques Through Hydraulic Modeling
Julia Manzano, James Shelton, Arcadis

9:00 a.m. Benchmarking Sewer RDII Models
David Edgren; AJ Fernandez

9:30 a.m. Dancing with the Models! SWMM and Physical Models used to Optimize Design of the Cemetery Brook Drain Tunnel
Tatyana Dudiac; Frederick McNeill, Village of Manchester; Shawn Lavoie, CDM Smith; Laurie Locke

10:15 a.m. Mitigating geysering in stormwater systems with 3D hydraulic modeling
Karthik Ramaswamy; Ryan Jones, Flow Science, Inc.

10:45 a.m. Using Geospatial Modeling to Empower Stormwater Resilience and Flood Mitigation
Jose Abinazar; Alberto Pisani, Miami-Dade County Dept. of Regulatory and Economic Resources, Water Mgmt. Division; Georgio Tachiev, GIT Consulting, LLC; Marina Blanco-Pape, Miami-Dade County Dept. of Regulatory and Economic Resources, Water Mgmt. Division

11:15 a.m. Impacts of Rainfall Distribution on the Performance of Urban Storm Drainage Systems
Yun Tang; Kenneth Trefzger, HDR

Alternate See It Before We Build It — How Fairfax County utilized high resolution 2-D Model to support a stormwater drainage improvement design to address 100-year flood!
Muralikrishna Chelupati, Stantec; Sajan Pokharel, Heather Ambrose, Fairfax County Department of Public Works and Environmental Services; Carl Chan, George Rhodes III, Megan McCollough, Stantec

Alternate Limitations of the Control Basin Comparison Approach and Potential Improvement
Hazem Gheith, Arcadis
Session 26: Innovations in Stormwater Data Collection and Management
Friday, April 12, 2024
8:30 a.m. - 10:00 a.m.

8:30 a.m. New Technology for Tracking Sources of Sewage Contamination in Stormwater Drainage Systems
Matthew Davis; Stephanie Alimena, Brown and Caldwell; Nicholas Federico, City of Newburyport, MA

9:00 a.m. From Data to Action: Utilizing Innovative Technologies to Facilitate Adaptive Management in Stormwater
Erin Rothman, Stormwater Investment Group

9:30 a.m. That’s Smart: Using Low-Cost Internet-of-Things Sensors to Characterize Water Quality in a City of Atlanta Combined Sewer
John Abrera; Lamont Ferrebee, City of Atlanta Department of Watershed Management

Alternate Back to Basics: Using Advanced Modeling Analysis with Traditional Engineering Approaches to Save South Bend $400M
Kisch Elsenbroek, Patrick Flynn, Stantec; Kieran Fahey, City of South Bend; Thomas Johnson, Stantec
Session 27: Trenchless Installation
Friday, April 12, 2024
8:30 a.m. - 10:00 a.m.

8:30 a.m.  Navigating the Rapids: Overcoming Obstacles in the Rehabilitation of a 90-inch Sewer
Mikaela Boyd, Kimley Horn; Jeff Farnsworth,

8:30 a.m.  Trenchless Repair of Critical Sanitary Force Main
William Cotter; Larry Sullivan, Norwich Public Utilities; Ryan Graham, Jacobs; Andrea Braga

9:30 a.m.  Innovative Auger Boring Sewer Rehabilitation Project Conducted in the City of Pittsburgh to Renew a Century Old VCP Combined Sewer at over 30-Ft Depth
Jeff Lenner, Mott MacDonald

Alternate  Under the River and Through the Levee, to Bondi’s Island We Go
Gus O’Leary; Jason Lavoie, Kleinfelder
Session 28: Collection System Inspection
Friday, April 12, 2024
8:30 a.m. - 11:45 a.m.

8:30 a.m. So, you think you can inspect? The saga of city-wide inspections in the Nation's Capital
Pono Hanson, Brown and Caldwell; Jessica Shiao, DC Water; Kaylie Kramer, Brown and Caldwell; Tatiana Baranova, DC Water; Sohan Patel, Brown and Caldwell

9:00 a.m. The Calm Before the Storm: Proactive I/I Remediation in Brevard County, FL
Chris White; Edward Fontanin

9:30 a.m. Navigating the Dirty Waters of Critical Force Mains
Laurie Perkins, Michael Stein, Wright-Pierce

10:15 a.m. Region of Peel's Real Time Control Strategy: An Integrated Plan to Enhanced System Performance and Maximizing Return on Collection and Treatment System Investments
James Ricker, Stantec Consulting Ltd.; Adrien Comeau

10:45 a.m. Accuracy and Project Cost Comparison Between Photogrammetry and LiDAR-based Methods in Sewer Manhole Inspection Data Capture and Condition Assessment
Eric Sullivan, Tim McGarry, SewerAI

11:15 a.m. Seeing is Not Always Believing: When Visual Inspection Falls Flat in Large Diameter Sewer Rehab
Matthew Kiefer, Arcadis

Alternate The Perils of Surcharging Interceptors: Unintended consequences of in-line storage
James Shelton, Arcadis; Andrew Peters, Evansville Water and Sewer Utility

Alternate Advancements In Multi-Sensor Condition Assessment For Pipe Rehabilitation
Csaba Ekes, SewerVUE
Session 29: Alternate Design Tools
Friday, April 12, 2024
10:15 a.m. - 11:45 a.m.

10:15 a.m. From Planning through Construction: Leveraging Virtual Design Construction (VDC) to Enhance your Collection System Project Delivery
Alia Johnson, DeKalb County; Abe Torres, R2T; Sydney Criminski, Atkins North America; Haydn Barnes, R2T

10:45 a.m. The Amazing AI Race: Pit Stops, Detours, and Green Flags
Kelly Alexander, Jacob Mueller, Alexander Palmatier, HDR; Tim McGarry, Eric Sullivan, SewerAI; Holly Curry, HDR

11:15 a.m. Overcoming the Challenges of Temporary Flow Bypass in Large Diameter Pipe Replacement: A Case for 3-D Modelling of the Design and Alternative Methods to Pumping
Nancy Wohlleb, Peter Kocsik, Jamie Shirtz, Mott MacDonald

Alternate Coordinating the Unknown — Using 3-D Models for Construction Coordination on the South Hartford Conveyance and Storage Tunnel
Brian McGuire; Allison Zeoli, Arcadis
Session 30: Inflow and Infiltration
Friday, April 12, 2024
10:15 a.m. - 11:45 a.m.

10:15 a.m.  Not the Regular Kool-Aid: How to Implement a Cost-Effective I/I Rehab Plan under Extreme Drought Conditions with Significant Operational Challenges
Carlos Toro, Brown and Caldwell; Andy Lukas; Chris Wilson, Brown and Caldwell; Phillip Hubbard, HRSD

10:45 a.m.  Manhole Inflow - The unexpected reality of how much of our peak wet weather flow is related to sheet runoff
Tanvi Naidu, Michael Bell, James Shelton, Arcadis

11:15 a.m.  Benefits of a Comprehensive Infiltration and Inflow Removal Program
Vinta Varghese, CDM Smith; Ray Esponda, City of New Britain

Alternate  Plan the Work, Work the Plan: Long-term I/I Mitigation in Practice
Miles Bateman, Dewberry Engineers, Inc.