

2024 CONFERENCE PROGRAM



COLLECTION SYSTEMS AND STORMWATER CONFERENCE

APRIL 9-12, 2024
HARTFORD, CONNECTICUT

#CSSWConf
wef.org/CollectionsStormwater



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WEFTEC2024
**NEW ORLEANS,
LOUISIANA, USA**

CONFERENCE: Oct. 5–9, 2024

EXHIBITION: Oct. 7–9, 2024

New Orleans Morial
Convention Center



WEF Collection Systems and Stormwater Conference 2024

April 9-12, 2024
Connecticut Convention Center
Hartford, Connecticut

www.wef.org/CollectionsStormwater



This conference is hosted by the Water Environment Federation in cooperation with the New England Water Environment Association.

April 9, 2024

To Our Friends and Colleagues:

Welcome to the great city of Hartford! The Water Environment Federation in cooperation with the New England Water Environment Association are excited to bring collection systems and stormwater professionals and practitioners together for four days of learning, sharing and celebrating the value of our work. It's truly a pleasure to offer this in-person event where you will hear unique perspectives on collection systems and stormwater themes, all while enjoying a great environment to network and discuss the latest hot topics with your peers.

As chairs, we are confident of the value of this conference, and we also hope you enjoy your time here. Please seek us out and share your experiences with us so we can reinvest that knowledge into the continued success of this conference. Take a minute to complete our survey to provide us with your valuable input and to share your thoughts with staff.

Conference Highlights

Pre-Conference Workshops: Three workshops are being offered on Tuesday that will enhance your educational experience - "*Smart Sewer Applications and Utility Experiences*", "*Don't Forget Your Manholes! How to Identify and Properly Select Rehabilitation to Extend Service Life*", AND "*Financing Stormwater Infrastructure in Communities: WIFIA, SRFs, and Private Finance, and Technical Assistance via EPA Environmental Finance Centers*". Choose the one that will increase your agency's effectiveness when you return to the office.

On Tuesday evening, from 5-8pm, the New England Water Environment Association is hosting the conference welcome reception at the Connecticut Science Center. **Join us and catch up with colleagues and friends and enjoy this conference kickoff event.**

Opening General Session: The Opening General Session will include a welcome from the Mayor of Hartford, Arunan Arulampalam and from Scott Jellison, Chief Executive Officer from the MDC. We will also hear about the History of the Connecticut River and Hartford's AA Minor League Baseball Team, the Yard Goats. Join your colleagues and attend the Opening General Session to kick-off the three-day conference of diverse technical sessions, technology spotlight sessions, tours, and networking.

Technical Sessions, Technology Spotlights, and Exhibition: The technical program was developed to provide presentations that cover a wide range of topics relating to collection systems and stormwater. This program provides the details of our technical sessions that will be held over the next three days. In addition, we have included many presentations that will highlight local projects in the Hartford metropolitan area. Multiple technology spotlights (previously mobile sessions) allow attendees to interact directly with exhibitors to gain

hands-on knowledge about existing products and services, along with highlighting emerging topics and technologies that are new to the marketplace. Throughout the conference, attendees can gain first-hand knowledge by visiting the many exhibitors who will be joining us this year.

Tours: We encourage you to take part in our local tours. These highlight South Hartford's Conveyance and Storage Project and Hartford's Complex Flood Control Systems.

We encourage you to make the most of your time together. Step away from your daily routine of meetings, emails, deliverables, approvals and submittals to take a well-deserved pause. Here, you have rich opportunities to interact, in person, with the best and brightest in our sector - in an open, engaging, and unique program. This is a great time for you to think beyond the day to day about how you can increase your impact back home!

On behalf of WEF, the national and local conference steering committees, the dedicated staff, and all moderators, room monitors and speakers, we invite you to make this conference experience your best yet!

Thank you for joining us!

Sincerely,

Dan Murray
WEF Conference Co -Chair

John Philips
WEF Conference Co -Chair

Tom Loto
NEWEA Conference Local Chair



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WEF Conference Co-Chair



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REGISTRATION

All events are held in the Connecticut Convention Center.

The Registration Desk at the entrance of Exhibit Hall A will be open at the following times:

Tuesday, April 9	7:30 a.m. – 5:00 p.m.
Wednesday, April 10	7:30 a.m. – 5:00 p.m.
Thursday, April 11	8:00 a.m. – 5:00 p.m.
Friday, April 12	8:00 a.m. – 12:00 p.m.

WIFI

Free WiFi is offered to conference attendees within the convention center.

Network Name: CSSW 2024

Password: cssw2024

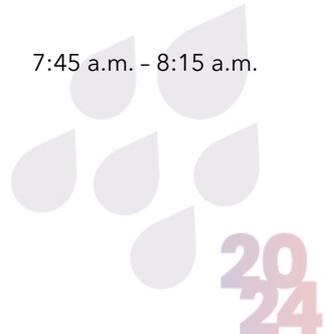
PRESENTER AND MODERATOR INFO

All presenters, alternates, and moderators should pick up their conference badge at the Registration Desk and attend their assigned briefing.

Presenters and alternates participating Wednesday, Thursday, and Friday should attend their assigned briefing. Please attend only once unless speaking on multiple days. The Speaker Briefing and room schedule is as follows:

Wednesday, April 10 – Room 11-12 Riverside 7:45 a.m. – 8:15 a.m.
*Sessions 1 through 11

Thursday, April 11 – Room 11-12 Riverside 7:45 a.m. – 8:15 a.m.
*Sessions 12 through 30



CODE OF CONDUCT

WEF is committed to providing a professional, safe, and welcoming environment during its in-person and virtual events for all participants. WEF expects all attendees, moderators, panelists, and speakers to uphold our commitment to diversity and inclusion by helping us provide a positive environment for everyone.



As a participant you agree to the following:

- To treat all individuals with respect and create a collegial, inclusive, and professional environment.
- To value a diversity of views and opinions by communicating openly with respect for others.
- Not to verbally abuse any individual or to discriminate, harass, or intimidate on the basis of gender, race, gender identity and expression, sexual orientation, physical or mental disability, physical appearance, age, religion, national origin, veteran status, citizenship, or professional rank.

WEF Events Code of Conduct

Anyone requested to stop unacceptable behavior is expected to comply immediately. WEF management may take any action deemed necessary and appropriate, including removal from the event (and any remaining portions thereof) without warning and without refund of registration fee.



Additionally, if you are a WEF member, you agree to uphold the WEF Member Code of Conduct while attending WEF events.

WEF Member Code of Conduct

Reporting Concerns

To report a Code of Conduct violation, you may email the WEF Executive Director, at: executivedirector@wef.org.



WEF SOCIAL MEDIA POLICY

WEF strongly encourages the use of social media to share your experiences at our event. This includes sharing interesting quotes or information, taking pictures with colleagues, and using the event hashtag: #CSSWConf. However, to protect intellectual property, videotaping, filming, or live-streaming of any technical session is prohibited. Any participant violating this policy must relinquish the media and may be removed from the conference. Also, promotional or commercial use of photographs taken at WEFTEC and other WEF conferences is strictly prohibited. If you are interested in content, materials, or products, please consider talking to the speaker who may provide the information or grant permission.

CONFERENCE SAFETY AND SECURITY

Connecticut Convention Center

100 Columbus Blvd, Hartford, CT 06103

- **Do not dial 911** to request an emergency response but notify any Convention Center staff member of the medical emergency. The Convention Center staff member will contact the security department who will notify emergency responders of the incident. A security officer will be immediately dispatched to the location of the medical emergency to gather pertinent information and render first aid as required.
- To contact the security department directly, dial 860.728.2638.
- For an emergency evacuation, all guests should assemble in front of the CT Convention Center near the flagpoles on Columbus Boulevard. CT Convention Center staff will keep you informed of the evacuation status and notify you when the facility has been cleared for re-entry.

Hartford Marriott Downtown

200 Columbus Blvd, Hartford, CT 06103

- CALL 911 if the situation is an emergency.
- If the matter is NOT an emergency, dial "0" from any Hotel phone or 860-760-2252 from your mobile phone, ask to speak to the Manager on Duty, and report the matter accordingly.

RECEPTIONS AND MEAL FUNCTIONS

Staff have arranged to have a variety of food options to accommodate vegan and vegetarian preferences. Please advise staff if you have additional special dietary requirements.

Networking Luncheons

Lunch will be provided for all registered attendees on both full days of the Collection Systems and Stormwater Conference. Use this opportunity to meet your fellow participants from across the country and abroad while enjoying a luncheon.

Wednesday, April 10 and Thursday, April 11

Exhibit Hall A

11:45 a.m. - 1:30 p.m.

NEWEA Welcome Reception

Join NEWEA for an evening full of networking, food, beverages, and entertainment. NEWEA's Welcome Reception.

Must Register to Join While Tickets Last: www.newea.org/register

Tuesday, April 9

CT Science Center

5:00 p.m. - 8:00 p.m.

WEF Networking Reception

Sponsored by: Arcadis

Join fellow attendees, speakers, and exhibitors in the Exhibit Hall to network and relax while enjoying a complimentary beverage and light hors d'oeuvres.

Wednesday, April 10

Exhibit Hall A

4:45 p.m. - 6:15 p.m.

Networking Breaks

Take the opportunity to explore the exhibit hall without missing any technical sessions while enjoying a cup of coffee or tea.

Wednesday, April 10 and Thursday, April 11

Exhibit Hall A

10:00 a.m. - 10:45 a.m. and 3:00 p.m. - 3:45 p.m.

The Networking Break on **Friday, April 12** will take place in the foyer outside meeting rooms 21-22 from 10:00 a.m. - 10:15 a.m.

COMMITTEE MEETINGS

Stormwater Community Meeting

All are Welcome to Join

Thursday, April 11 | 12:15 p.m. - 12:45 p.m.

Room: MR 16-17

Collection Systems Community Meeting

All are Welcome to Join

Thursday, April 11 | 4:45 p.m. - 5:15 p.m.

Room: MR 21-22

MOBILE APP

WEF is pleased to offer the 2024 WEF Collection Systems and Stormwater Conference Mobile App and mobile-friendly online planner.

Scan the QR code, or search "CSSWConf" in the Google Play / App Store.

Set up your My Show Planner account to save sessions, speakers, exhibitors, and sponsors.



Download the mobile app for the most current information.

ONLINE PROCEEDINGS

Conference proceedings consisting of manuscripts from all of the technical presentations have been made available through an online portal. Advance registrants will receive an email with instructions on how to access the Collection Systems and Stormwater Conference 2024 online proceedings before the start of the conference. Onsite registrants will receive an email with instructions to access proceedings following the event's conclusion.

Not attending this year's Conference? Copies of proceedings may be ordered on Access Water after the conference ends. You may call 1-800-666-0206 or visit www.AccessWater.org to place your order.

CONTINUING EDUCATION

Continuing Education credits

Participating attendees will receive an email within 2 weeks after this event informing them when CE Credit files are available. Attendees will be able to download a certificate and transcript detailing their participation using the link provided. These details are also posted under events on www.WEF.org.

How Do I Receive Credit For this Conference?

To receive credit for participation in educational sessions, attendees will be required to scan their badge when entering and exiting each session room. Credits obtained during this event will be available using the link provided in the post event email and WEF site listed above.

Pre-Conference Workshops:

WEF offers Continuing Education Units (CEUs) for participation in workshops. One CEU is the equivalent to 10 hours of training or formal instruction. These are distributed for structured, relevant professional training above and beyond that of initial certification or employment in a particular field.

Technical Sessions:

WEF offers Professional Development Hours (PDHs) for participation in technical sessions. A PDH is defined as one hour spent engaged in an activity that contributes to the advancement or enhancement of professional skills or scientific knowledge of a professional engineer or operator.

General Contact Hours:

These credits are issued for participation in the Opening General Session, Technology Spotlights and in Facility Tours. A contact hour is defined as one hour spent engaged in an activity that contributes to the professional skills of the participant. Licensing boards will vary in approval of these sessions.

When Will I Receive Credits For this Conference?

Certificates and transcripts are available for download as soon as the CE Credit link is made available. WEF will send an email after the conference to inform attendees where they can obtain their credits. Please keep in mind that most state licensing boards require the individual licensees to report their continuing education credits.

Are WEF Continuing Education Credits Approved in My State?

Most state engineering boards will accept WEF event credits as issued by WEF. WEF will be happy to work with individuals and Member Associations for additional state or agency approvals upon request. In addition, WEF has been approved as a Training Provider through the following: The Florida Board of Professional Engineers, the New York State Department of Education, and the Ohio EPA.

Please visit www.wef.org for specific state approval information for each event.

CONTINUING EDUCATION

What Else Do I Need to Know?

WEF follows the International Association of Continuing Education and Training (IACET) guidelines along with strict state-specific CE Credit regulations. We strive to maintain these policies and procedures regarding our Continuing Education Program to meet with and receive state recognition of our events. WEF calculates education credits following a standardized method that is the most widely accepted by certification and licensing agencies. However, many states differ in the type and/or number of credits they will approve for educational events. Because of this, participants are responsible for exploring their state requirements and for ensuring that WEF conference credits are accepted.

Note: Educational Credits will not be recorded, and documentation will not be distributed unless the attendee is a confirmed registrant of this event and the proper steps are completed as indicated in the directions provided.

Service and Support:

WEF maintains a database of all continuing education files for a minimum of 7 years. You may contact WEF's Customer Service Team between the hours of 8:30 a.m. and 5:00 p.m. EST, Monday through Friday for questions related to WEF Programs - 1-800-666-0206 or csc@wef.org.

State Credit Calculations:

Each state licensing board has its own set of CE credit requirements. Some states use different acronyms for approved training credits. In most cases the credits issued by WEF can be converted to meet state specific requirements that vary from the system used by WEF. This is usually managed at the state level using the following conversion:

1.0 CEU = 10 Hours of session time

1.0 PDH = 1 Hour of session time

1.0 General Contact Hour = 1 Hour of session time

For example: **1.7 CEU Credits = 17.0 PDH** depending on individual state regulations.

**CEU will be converted to PDH credits for Workshops attended by Professional Engineers licensed in the state of New York (NYSED).*

Important: Sessions that are not related to professional practice, such as accounting/financial planning, basic Auto CAD, general office management, insurance, marketing, real estate, risk management, DE&I, etc. are not approved for CE credits by some state licensing boards, including the NYSED.

For more information regarding WEF's Continuing Education Program, please visit the Events & Education tab at www.WEF.org.

SPONSORS

We would like to thank the following sponsoring companies for their contributions to the conference and program.



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Please view sponsor information in the WEF Collection Systems and Stormwater Conference mobile app for more details.



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SESSIONS-AT-A-GLANCE

Session Number	Session Title	Start Time	End Time	CE Credits
Tuesday, April 9				
WKSP A	SSO Wet Weather Control - Treatment & Storage	8:30 AM	5:00 PM	0.6 CEUs
WKSP B	Green Infrastructure Sites in Kansas City's Smart Sewer CSO Program	8:30 AM	5:00 PM	0.6 CEUs
WKSP C	Financing Stormwater Infrastructure in Communities: WIFIA, SRFs, and Private Finance, and Technical Assistance via EPA Environmental Finance Centers	1:30 PM	5:00 PM	0.3 CEUs
Wednesday, April 10				
OGS	Opening General Session	8:30 A.M.	10:00 A.M.	1.5 GCHs
Session 01	U.S. EPA Regulatory and Policy Update Session	10:45 AM	11:45 AM	1.0 PDH
Session 02	Community Engagement	10:45 AM	11:45 AM	1.0 PDH
Session 03	The ROI of Resiliency	10:45 AM	11:45 AM	1.0 PDH
Session 04	Stormwater Reuse	10:45 AM	11:45 AM	1.0 PDH
Facility Tour A	Hartford MDC's South Hartford Conveyance & Storage Tunnel Project	1:00 PM	4:00 PM	3.0 GCH
Session 05	Collaborative Initiatives	1:30 PM	3:00 PM	1.5 PDH
Session 06	Pumping Operations	1:30 PM	3:00 PM	1.5 PDH
Session 07	Combined Sewer Overflow	1:30 PM	4:45 PM	2.5 PDH
Session 08	Climate Change Resilience	1:30 PM	3:00 PM	1.5 PDH
TS I	Technology Spotlight I	3:15 PM	3:40 PM	0.41 GCH
Session 09	Integrated Planning	3:45 PM	4:45 PM	1.0 PDH
Session 10	Asset Management Software	3:45 PM	4:45 PM	1.0 PDH
Session 11	Tidal and Sea Level Rise Impact	3:45 PM	4:45 PM	1.0 PDH
Thursday, April 11				
Session 12	Flood Mitigation Planning	8:30 AM	10:00 AM	1.5 PDH

SESSIONS-AT-A-GLANCE

Session Number	Session Title	Start Time	End Time	CE Credits
Thursday, April 11				
Session 13	Smart Collection System Programs	8:30 AM	10:00 AM	1.5 PDH
Session 14	Alternative & Innovative Collections Systems	8:30 AM	10:00 AM	1.5 PDH
Session 15	Asset Optimization	8:30 AM	10:00 AM	1.5 PDH
TS II	Technology Spotlight II	10:15 AM	10:40 AM	0.41 GCH
Session 16	Green Infrastructure and Nature Based Solutions Part 1	10:45 AM	11:45 AM	1.0 PDH
Session 17	Smart Collection System Tools	10:45 AM	11:45 AM	1.0 PDH
Session 18	Smart Systems - Stormwater	10:45 AM	11:45 AM	1.0 PDH
Session 19	Asset Management Funding	10:45 AM	11:45 AM	1.0 PDH
Facility Tour B	Navigating the Challenges of Operating one of the Most Complex Flood Control Systems in New England	1:00 PM	4:00 PM	3.0 GCH
Session 20	Green Infrastructure and Nature Based Solutions Part 2	1:30 PM	4:45 PM	2.5 PDH
Session 21	AI and Digital Twins	1:30 PM	3:00 PM	1.5 PDH
Session 22	Workforce Development, Recruitment, and Community Collaboration	1:30 PM	4:45 PM	2.5 PDH
Session 23	Local Case Studies	1:30 PM	4:45 PM	2.5 PDH
Session 24	Surface Water Flow Path Mapping: It Helps with EVERYTHING	3:45 PM	4:45 PM	1.0 PDH
Friday, April 12				
Session 25	Modeling	8:30 AM	11:45 AM	3.0 PDH
Session 26	Innovations in Stormwater Data Collection and Management	8:30 AM	10:00 AM	1.5 PDH
Session 27	Trenchless Installation	8:30 AM	10:00 AM	1.5 PDH
Session 28	Collection System Inspection	8:30 AM	11:45 AM	3.0 PDH
Session 29	Alternate Design Tools	10:15 AM	11:45 AM	1.5 PDH
Session 30	Inflow and Infiltration	10:15 AM	11:45 AM	1.5 PDH

PRE-CONFERENCE WORKSHOPS

(Additional fees apply)

Workshop A: Smart Sewer Applications and Utility Experiences

Tuesday, April 9, 2024

Room: MR12-MR13 - Level 6 Riverside

8:30 a.m. - 5:00 p.m.

0.6 CEUs

Speakers: Grace LeRose, City of Richmond; Rosaleen Nogle, Buffalo Sewer Authority; Michael Tryby, US EPA; Constantine Karos, Xylem Inc.; Dayton Marchese, OptiRTC; Bryant McDonnell, Hydroinformatics LLC; Luis Montestruque, HydroDigital; Mark Doneux, Capitol Region Watershed District

- 8:30 a.m. Introduction**
- 8:45 a.m. Elements of planning an RTC**
- 9:25 a.m. Interactive Element: Site Selection**
- 10:00 a.m. Networking and Coffee Break**
- 10:30 a.m. Elements of Modeling and Optimizing Controls**
- 10:50 a.m. Interactive Element: RTC Modeling**
- 12:00 p.m. Networking Lunch**
- 1:30 p.m. Elements of Implementation**
- 1:50 p.m. Interactive Element: Implementation strategy game**
- 3:00 p.m. Networking and Coffee Break**
- 3:30 p.m. Panel Discussion**
- 4:30 p.m. Interactive Element: Group lessons learned**
- 5:00 p.m. Workshop adjourns**



PRE-CONFERENCE WORKSHOPS

(Additional fees apply)

Workshop B: Don't Forget Your Manholes! How to Identify and Properly Select Rehabilitation to Extend Service Life

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

Room: MR14-MR15 - Level 6 Riverside
0.6 CEUs

- 8:30 a.m. Introduction**
Timothy Sumner, Crawford Murphy & Tilly
- 8:45 a.m. Manhole Condition Assessment**
Jeff Griffiths, RJN Group
- 9:15 a.m. Interactive Session #1: Manhole condition assessment tabletop exercise**
- 10:00 a.m. Networking and Coffee Break**
- 10:30 a.m. Rehabilitation Class Definitions: A, B & C**
Firat Sever, CDMSmith
- 10:50 a.m. Surface Preparation**
Don Rigby, Madewell Corporation
- 11:15 a.m. Rehabilitation Alternatives: Class A - Structural Liners**
Frederick Wu, MWRDGC
- 11:40 a.m. Rehabilitation Alternatives: Class B - Cementitious Linings**
Keith Walker, Waterline Renewal Technologies
- 12:00 p.m. Networking Lunch**
- 1:30 p.m. Rehabilitation Alternatives: Class B - Polymeric**
Mike Hoffmaster, OBIC
- 1:50 p.m. Rehabilitation Alternatives: Class B - Cured-In-Place-Manhole**
Ted Casten, William Casten, Infrastructure Rehab USA

Workshop B agenda continues on following page

PRE-CONFERENCE WORKSHOPS

(Additional fees apply)

Workshop B: Don't Forget Your Manholes! How to Identify and Properly Select Rehabilitation to Extend Service Life

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

**Room: MR14-MR15 - Level 6 Cityside
0.6 CEUs**

Workshop B agenda continued from previous page

- 2:15 p.m. Rehabilitation Alternatives: Class C - Above the Cone**
Timothy Sumner, Crawford, Murphy & Tilly
- 2:40 p.m. Rehabilitation Alternatives: Class C - Chemical Grouting**
Chris Hamilton, Avanti
- 3:00 p.m. Networking and Coffee Break**
- 3:30 p.m. Interactive Session 2: Develop a rehabilitation approach
for manholes with varying site conditions**
- 4:30 p.m. Rehabilitation Quality Assurance & Quality Control**
Frederick Wu, MWRDGC
- 5:00 p.m. Workshop Adjourns**



PRE-CONFERENCE WORKSHOPS

(Additional fees apply)

Workshop C: Financing Stormwater Infrastructure in Communities: WIFIA, SRFs, and Private Finance, and Technical Assistance via EPA Environmental Finance Centers

Tuesday, April 9, 2024

Room: MR11- Level 6 Riverside

1:30 p.m. - 5:00 p.m.

0.3 CEUs

- 1:30 p.m. Welcome and Introduction**
- 1:35 p.m. Overview of Federal Assistance for Local Stormwater Program**
Julie Stein, HDR
- 1:50 p.m. Utilizing WIFIA Funding for Stormwater Programs**
Kavita Mak, U.S. EPA
- 2:15 p.m. A Successful Application of WIFIA for Stormwater Projects: San Diego's Stormwater Capital Investment Program**
Alex Yescas, HDR
- 2:40 p.m. Q & A**
- 3:00 p.m. Networking and Coffee Break**
- 3:30 p.m. Welcome and Introduction**
- 3:35 p.m. EPA Resources for Stormwater**
Michael Deane, Ellen Tarquinio, U.S. EPA
- 4:00 p.m. Examples of Mega-Scale Greening Programs via SRFs and Private Finance**
RJ Pire, CIS
- 4:25 p.m. EPA Region 5 Water Technical Assistance as a Resource for Stormwater Projects**
Kristina Murphy, Delta Institute
- 4:45 p.m. Q & A**
- 5:00 p.m. Workshop Adjourns**

OPENING GENERAL SESSION

Opening General Session

Wednesday, April 10, 2024

Room: Ballroom A - Level 6 Riverside

8:30 a.m. - 10:00 a.m.

1.5 GCHs

- 8:30 a.m. City of Hartford, Connecticut - Welcome**
Arunan Arulampalam, Mayor of Hartford
- 8:40 a.m. WEF Welcome**
Christine Volkay-Hilditch, WEF Board of Trustees, City of Lancaster, PA
- 8:50 a.m. The Metropolitan District, Hartford, Connecticut - Welcome**
Scott Jellison, Chief Executive Officer
- 8:55 a.m. Connecticut River History and Initiatives**
Rebecca Todd, Connecticut River Conservancy
- 9:25 a.m. Hartford Yard Goats, AA Minor League Baseball**
Jeff Dooley, Director of Broadcast and Media Relations, Hartford Yard Goats
- 10:00 a.m. Session Adjourns for Networking Break in Exhibit Hall**



TECHNICAL PROGRAM

Session 01: U.S. EPA Regulatory and Policy Update Session

Wednesday, April 10, 2024
10:45 a.m. - 11: 45 a.m.

Room: MR26-MR27 - Level 6 Riverside
1.0 PDHs

Moderator: Dan Murray, U.S. EPA; Paul Costa, RJN

Speakers: Kathryn Kazior, U.S. EPA, Office of Water, Washington, DC;
Rachel Urban, U.S. EPA, Office of Water, Washington, DC;
Ken Moraff, U.S. EPA, Region 1, Boston, MA

This session will provide an update on EPA regulations, policies, and resources related to wastewater, collection systems, and stormwater management. Topics to be covered will include the new CSO permitting guidance; environmental justice, equity, and climate resilience considerations and resources; integrated planning tools and materials; stormwater permitting (MS4, construction, industrial, and residual designation); and stormwater centers of excellence grants. Each speaker will present background on their topic area of expertise, followed by a panel discussion.



TECHNICAL PROGRAM

Session 02: Community Engagement

Wednesday, April 10, 2024
10:45 a.m. - 11:45 a.m.

Room: MR21-MR22 - Level 6 Riverside
1.0 PDHs

Moderators: Rachel Jones, Gwinnett County Government; Chip Smith, Kimley-Horn

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, Erin Buek, Parson + Associates

11:45 a.m. Session adjourns for Networking Luncheon in Exhibit Hall



TECHNICAL PROGRAM

Session 03: The ROI of Resiliency

Wednesday, April 10, 2024
10:45 a.m. - 11:45 a.m.

Room: MR24-MR25 - Level 6 Riverside
1.0 PDHs

Moderator: Paris Neofotistos, SmartCover

The session will showcase how three (3) Florida entities embraced smart sewer technology to provide real-time network visibility, especially during storm events. The presentations will provide an overview of each organization, the challenge(s) they faced, and the noted Return on Investment that they have received in the implementation of smart sewer technology. Time is allowed at the end for panel discussion.

10:45 a.m. Real-Time Sewer Monitoring for Effective Response and Decision-Making

Travis Pike, City of Winter Haven, FL

10:55 a.m. Enhancing Infrastructure Resilience and Environmental Protection

Robert Bush, Panama City, FL

11:05 a.m. Toho Water Authority's Proactive Approach to Mitigating Sanitary Sewer Overflows

James Johnson, Toho Water Authority, FL

11:15 a.m. Panel Discussion / Question and Answer

11:45 a.m. Session adjourns for Networking Luncheon in Exhibit Hall



TECHNICAL PROGRAM

Session 04: Stormwater Reuse

Wednesday, April 10, 2024
10:45 a.m. - 11:45 a.m.

Room: MR16-MR17 - Level 6 Riverside
1.0 PDHs

Moderators: Scott Lander, Retain It; Joseph Kietner, City of Westfield

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

11:45 a.m. Session adjourns for Networking Luncheon in Exhibit Hall

Alternate LB MUST: Purification of Urban Run-Off & Stormwater For The City Of Long Beach.
Brian Butters, Purifics Water Inc; Tony Powell



FACILITY TOUR

(Additional fees apply)

Tour A: Hartford MDC's South Hartford Conveyance & Storage Tunnel Project

**Wednesday, April 10, 2024
1:00 p.m. - 4:00 p.m.**

Meet at the Registration Desk

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.



TECHNICAL PROGRAM

Session 05: Collaborative Initiatives

Wednesday, April 10, 2024
1:30 p.m. - 3:00 p.m.

Room: MR26-MR27 - Level 6 Riverside
1.5 PDHs

Moderators: Kalene Kobs, Stanley Consultants; Rachel Jones, Gwinnett County Government

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)

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

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

3:00 p.m. **Session adjourns for Networking Break in Exhibit Hall**



TECHNICAL PROGRAM

Session 06: Pumping Operations

Wednesday, April 10, 2024
1:30 p.m. - 3:00 p.m.

Room: MR21-MR22 - Level 6 Riverside
1.5 PDHs

Moderators: Vanessa McPherson, Arcadis; Laura Gray, Lamp Rynearson

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, Bethany McDonald, Black & Veatch

2:30 p.m. 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, Calvin Horst, Danielle Arney, Xylem

3:00 p.m. Session adjourns for Networking Break in Exhibit Hall



TECHNICAL PROGRAM

Session 07: Combined Sewer Overflow

Wednesday, April 10, 2024
1:30 p.m. - 4:45 p.m.

Room: MR24-MR25 - Level 6 Riverside
2.5 PDHs

Moderators: Carol Hufnagel, Tetra Tech; Kimberly Martin, CDM Smith

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, Megan Dever, Jacobs; Bethany Leavitt, Town of Bar Harbor

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 Plans
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, Dewberry

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, David Bedoya, Dewberry Engineers Inc.

3:00 p.m. Networking Break in Exhibit Hall

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, Stantec; Kathryn Kelly, Narragansett Bay Commission

Session 07 agenda continues on following page

TECHNICAL PROGRAM

Session 07 agenda continued from previous page

Session 07: Combined Sewer Overflow

Wednesday, April 10, 2024
1:30 p.m. - 4:45 p.m.

Room: MR24-MR25 - Level 6 Riverside
2.5 PDHs

Moderators: Carol Hufnagel, Tetra Tech; Kimberly Martin, CDM Smith

4:15 p.m. Modernizing CSO Notification and Forecasting with Digital Tools

Jamie Lefkowitz, Andrew Goldberg, Brown and Caldwell

4:45 p.m. Session adjourns for Networking Reception in Exhibit Hall

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, Gregory Heath, AECOM; Travis Peaslee, Lewiston-Auburn Water Pollution Control Authority; Owens McCullough, Sebago Technics, Inc.



TECHNICAL PROGRAM

Session 08: Climate Change Resilience

Wednesday, April 10, 2024
1:30 p.m. - 3:00 p.m.

Room: MR16-MR17 - Level 6 Riverside
1.5 PDHs

Moderators: Bob Backman, Stormwater Investment Group; Bob Domkowski, Xylem

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. 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, Arcadis; Jordan Salinger, New York City Mayor's Office of Climate and Environmental Justice

2:30 p.m. NYC Cloudburst Resiliency: Transformational Community Adaptation through Strong Partnerships
Anni Luck, Mihir Gupta, Kevin Obey, Sandeep Mehrotra, Hazen and Sawyer; Alan Cohn, John Brock, NYCDEP

3:00 p.m. Session adjourns for Networking Break in Exhibit Hall

Alternate Make it Rain: Funding Projects to Address Climate Change, Water Quality, and Unmet Needs
Zachary Henderson, Woodard & Curran



TECHNOLOGY SPOTLIGHT

Technology Spotlight I

Wednesday, April 10, 2024

3:15 p.m. - 3:40 p.m.

*The two exhibitors listed below will each hold a 20-minute presentation once each. Participants are invited to attend a different presentation at each of the times listed below. Choose the presentation you would like to attend. Each presentation happens at the exhibitor's booth. Presentations kick off concurrently at: **3:20 p.m.** in each of the two booths.*

3:15 p.m. Mobile Session Introduction at entrance to exhibit hall
3:20 p.m. 2 Simultaneous Presentation A

Booth 822 **Revolutionizing Wastewater Management: Leveraging Data and Innovation for Pump Station Optimization with Virtual Pump Stations**

Theodore Bennett, Jones & Henry Engineers

Booth 509 **State of the Industry: Digital Solutions for Network Asset Management**

James Kelleher, APX10 Inc.



TECHNICAL PROGRAM

Session 09: Integrated Planning

Wednesday, April 10, 2024
3:45 p.m. - 4:45 p.m.

Room: MR26-MR27 - Level 6 Riverside
1.0 PDHs

Moderators: John Phillips, Parametrix; Alex Churchill, InfoSense

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

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

4:45 p.m. Session adjourns for Networking Reception in Exhibit Hall



TECHNICAL PROGRAM

Session 10: **Asset Management Software**

Wednesday, April 10, 2024
3:45 p.m. - 4:45 p.m.

Room: MR21-MR22 - Level 6 Riverside
1.0 PDHs

Moderators: Paul Costa, RJN; Phil Hubbard, HRSD

3:45 p.m. Visualizing Success: Sewer Asset Management with Power BI

Evan Hunsicker, [Dan Scrutchfield](#), Paul Batman, Arcadis;
[Kevin Penozo](#), Robert Roff, New Castle County

4:15 p.m. Leveraging Artificial Intelligence to Detect Sensor Issues and Operational Problems in Sewer Systems

[Varun Srinivasan](#), Katie Deheer, Shervin Khazaeli, Trinnex

4:45 p.m. Session adjourns for Networking Reception in Exhibit Hall



TECHNICAL PROGRAM

Session 11: Tidal and Sea Level Rise Impact

Wednesday, April 10, 2024
3:45 p.m. - 4:45 p.m.

Room: MR16-MR17 - Level 6 Riverside
1.0 PDHs

Moderators: Natalie Pommersheim, Environmental Partners; Stephanie Hanses, Brown and Caldwell

3:45 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

4:15 p.m. Designing a Pump Station Replacement within Tsunami and Sea Level Influenced Zone

Erik Waligorski, Tyler Whitehouse, Carollo Engineers

4:45 p.m. Session adjourns for Networking Reception in Exhibit Hall



TECHNICAL PROGRAM

Session 12: Flood Mitigation Planning

Thursday, April 11, 2024

Room: MR16-MR17 - Level 6 Riverside

8:30 a.m. - 10:00 a.m.

1.5 PDHs

Moderators: Nitin Katiyar, HDR; Kraig Moodie, RJN

8:30 a.m. A Blueprint for Flood-Resilient Communities: Using Modern Tools to Identify and Prioritize Solutions
Matthew Zelin; Matthew Jones, Hazen and Sawyer

9:00 a.m. Union Square Stormwater Mitigation Program & Poplar Street Pump Station
Emerson Olander, Stantec; 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

10:00 a.m. Session adjourns for Networking Break in Exhibit Hall



TECHNICAL PROGRAM

Session 13: Smart Collection System Programs

Thursday, April 11, 2024

Room: MR21-MR22 - Level 6 Riverside

8:30 a.m. - 10:00 a.m.

1.5 PDHs

Moderators: Jay Boyd, ADS; Ashok Perera, Atkins Realis

8:30 a.m. Innovative Systems for Improving Collection System Asset Management

Donald Shields, New Jersey American Water; John Marciszewski, SmartCover; Benjamin Agrawal, Hazen & Sawyer

9:00 a.m. Predicting Treatment Plant Inflows using a Deep Learning-Based Digital Twin for Operational Decision-Making

Richard Loeffler, Abhiram Mullapudi, Nick Mills, Xylem

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

10:00 a.m. Session adjourns for Networking Break in Exhibit Hall



TECHNICAL PROGRAM

Session 14: **Alternative & Innovative Collections Systems**

Thursday, April 11, 2024

Room: MR24-MR25 - Level 6 Riverside

8:30 a.m. - 10:00 a.m.

1.5 PDHs

Moderators: Jeff Griffiths, RJN; Carol Hufnagel, Tetra Tech

8:30 a.m. **Charlotte Water's Use of a Risk Management Tool to Effectively Mitigate Sanitary Sewer Overflows**

Jason Bromirski, Charlotte Water; Paris Neofotistos, SmartCover

9:00 a.m. **Liquid Only Sewer – Bringing Two Communities Together**

Michael Saunders; Jerry VanAuker, Orenco Systems Inc

9:30 a.m. **Accelerated Public and Private Sewer and Lateral Rehabilitation to Renew Infrastructure and Reduce Combined Sewer Overflows in northern Hartford, CT**

Kyah Lucky, CDM Smith; Thomas Robbins, Metropolitan District Commission; Jason Waterbury, The Metropolitan District; Brian Brown, CDM Smith

10:00 a.m. **Session adjourns for Networking Break in Exhibit Hall**



TECHNICAL PROGRAM

Session 15: Asset Optimization

Thursday, April 11, 2024

Room: MR26-MR27 - Level 6 Riverside

8:30 a.m. - 10:00 a.m.

1.5 PDHs

Moderators: William McMillian, Jacobs; Nicholas Anderson, Stantec

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, Courtney Kennedy, Purnima Praturi, Jacobs

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, Alabama Environmental Services, Stephen King, Sean Fitzgerald, John Clayton, Hazen and Sawyer

10:00 a.m. Session adjourns for Networking Break in Exhibit Hall



TECHNOLOGY SPOTLIGHT

Technology Spotlight II

Thursday, April 11, 2024

10:15 a.m. - 10:40 a.m.

*The two exhibitors listed below will each hold a 20-minute presentation once each. Participants are invited to attend a different presentation at each of the times listed below. Choose the presentation you would like to attend. Each presentation happens at the exhibitor's booth. Presentations kick off concurrently at: **10:20 a.m.** in each of the two booths.*

10:15 a.m. Mobile Session Introduction at entrance to exhibit hall
10:20 a.m. 2 Simultaneous Presentation A

Booth 618 **The Hat-Trick of Flood-Prone Site Monitoring: Fast, Accurate, Reliable**
Jay Boyd, ADS Environmental Services

Booth 610 **Integrated Intelligence - A Breakthrough in Wastewater Pumping**
Ian Belczyk, Xylem



TECHNICAL PROGRAM

Session 16: Green Infrastructure and Nature Based Solutions Part 1

Thursday, April 11, 2024
10:45 a.m. - 11:45 a.m.

Room: MR16-MR17 - Level 6 Riverside
1.0 PDHs

Moderators: Virginia Roach, CDM Smith; Dayton Marchese, Opti RTC

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 dense urban environments
Peter Garvey, Dewberry

11:45 a.m. Session adjourns for Networking Luncheon in Exhibit Hall

Alternate Natural Treatment of Surface Run-off from Urban Catchments
Dave Walker, Detectronic Ltd



TECHNICAL PROGRAM

Session 17: Smart Collection System Tools

Thursday, April 11, 2024
10:45 a.m. - 11:45 a.m.

Room: MR21-MR22 - Level 6 Riverside
1.0 PDHs

Moderators: Jennifer Baldwin, Jacobs; Kimberly Martin, CDM Smith

10:45 a.m. Building the Foundation for Collection System AI - Norwalk, CT

Tim Sullivan, Nikita Bhalerao, Clure Winfree, Veolia North America;

11:15 a.m. Using Data-Driven Analytics for SMART CSO Management

Liie Hill, Suibing Liu, Jennifer Baldwin, Jacobs

11:45 a.m. Session adjourns for Networking Luncheon in Exhibit Hall



TECHNICAL PROGRAM

Session 18: Smart Systems - Stormwater

Thursday, April 11, 2024
10:45 a.m. - 11:45 a.m.

Room: MR24-MR25 - Level 6 Riverside
1.0 PDHs

Moderators: Stephanie Hanses, Brown and Caldwell; Kalene Jobs, Stanley Consultants

10:45 a.m. 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

11:15 a.m. Maximising Affordable Housing With Minimal Water Environment Impacts – Innovative Pilot For Christchurch, New Zealand

Joel Wilson, WCS Engineering; Bridget O'Brien, WSP; Michele McDonald, Christchurch City Council; Glen Hughes, Kainga Ora

11:45 a.m. Session adjourns for Networking Luncheon in Exhibit Hall



TECHNICAL PROGRAM

Session 19: Asset Management Funding

Thursday, April 11, 2024
10:45 a.m. - 11:45 a.m.

Room: MR26-MR27 - Level 6 Riverside
1.0 PDHs

Moderators: Jim Hewitt, GPD Group; Karyn Stickel, Hubbell, Roth & Clark

10:45 a.m. How We Can Prioritize and Fix Our Drainage Infrastructure Problems, And How We Can 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, Stantec; Timothy Mitchell, Eric Schrader, City of Lynchburg, Virginia

11:45 a.m. Session adjourns for Networking Luncheon in Exhibit Hall



FACILITY TOUR

(Additional fees apply)

Tour B: Navigating the Challenges of Operating one of the Most Complex Flood Control Systems in New England

**Thursday, April 11, 2024
1:00 p.m. - 4:00 p.m.**

MR21-MR22 - Level 6 Riverside

We will **meet in Technical Session Room MR21-22 on Level 6** for a quick presentation and overview of what we are about to see, and **then proceed to the bus for the tour.**

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.



TECHNICAL PROGRAM

Session 20: Green Infrastructure and Nature Based Solutions Part 2

Thursday, April 11, 2024

Room: MR16-MR17 - Level 6 Riverside

1:30 p.m. - 4:45 p.m.

2.5 PDHs

Moderators: Ryan Brown, Autodesk; Natalie Pommersheim, Environmental Partners

1:30 p.m. Stormwater Parks: Designing Blue-Green Infrastructure in Community Spaces

Dustin Atchison, Matthew Dalrymple, Jacobs

2:00 p.m. The Bowtie Demonstration Project

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, Allison Lewis, Jacobs; Angela Brackbill, City of Lancaster, PA

3:00 p.m. Networking Break in Exhibit Hall

3:45 p.m. 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, Drummond Carpenter, PLLC; Liz Whiddon, OHM Advisors; Eric Wahrman, Anna Timmis, Barry Brown, Detroit Water and Sewerage Department (DWSD); Patrick Droze, OHM Advisors; Rachel Pieschek, Drummond Carpenter, PLLC

Session 20 agenda continues on following page

TECHNICAL PROGRAM

Session 20 agenda continued from previous page

Session 20: Green Infrastructure and Nature Based Solutions Part 2

Thursday, April 11, 2024
1:30 p.m. - 4:45 p.m.

Room: MR16-MR17 - Level 6 Riverside
2.5 PDHs

Moderators: Ryan Brown, Autodesk; Natalie Pommersheim,
Environmental Partners

4:45 p.m. Session adjourns

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, Throe Environmental



TECHNICAL PROGRAM

Session 21: AI and Digital Twins

Thursday, April 11, 2024
1:30 p.m. - 3:00 p.m.

Room: MR21-MR22 - Level 6 Riverside
1.5 PDHs

Moderators: Steven Drangsholt, Trinnex; Jennifer Baldwin, Jacobs

1:30 p.m. Digital Twin / AI-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, Lucas Djehdian, WCS Engineering; Kithsiri Tennakoon, Urban Utilities

2:30 p.m. A Practical Sewer Network Digital Twin: It is not a PIPE dream!
Varun Srinivasan, Trinnex; Jason Waterbury, The Metropolitan District, CT; Jim Costa, Shawn Syde, City of New Bedford, MA

3:00 p.m. Session adjourns for Networking Break in Exhibit Hall



TECHNICAL PROGRAM

Session 22: Workforce Development, Recruitment, and Community Collaboration

Thursday, April 11, 2024
1:30 p.m. - 4:45 p.m.

Room: MR24-MR25 - Level 6 Riverside
2.5 PDHs

Moderators: Jennifer Steffens, Opti RTC; Louis Mammolette, Dewberry

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 Batrone, HDR; 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, Biviana Casanova, The Metropolitan District of Hartford, Connecticut

3:00 p.m. Networking Break in Exhibit Hall

3:45 p.m. Priming the Pump: What to do when the talent well runs dry

Lisa Derrigan, GHD; Tshoganetso Masunga, JG Afrika (Pty) Ltd; Ashok Perera, AtkinsRealis; Archana Sharma, Mead & Hunt; Karen Steele, Oklahoma DEQ; Jake Whited, Arcadis



Session 22 agenda continues on following page

TECHNICAL PROGRAM

Session 22 agenda continued from previous page

Session 22: Workforce Development, Recruitment, and Community Collaboration

Thursday, April 11, 2024
1:30 p.m. - 4:45 p.m.

Room: MR24-MR25 - Level 6 Riverside
2.5 PDHs

Moderators: Jennifer Steffens, Opti RTC; Louis Mammolette, Dewberry

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

4:45 p.m. Session adjourns

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



TECHNICAL PROGRAM

Session 23: Local Case Studies

Thursday, April 11, 2024
1:30 p.m. - 4:45 p.m.

Room: MR26-MR27 - Level 6 Riverside
2.5 PDHs

Moderators: Greg Heath, AECOM; William McMillin, Jacobs

1:30 p.m. Taking Action to Improve Sassaquin Pond with a Watershed-Based Plan
Zoe Schmitt, Zachary Eichenwald, Bernadette Kolb, CDM Smith; Shawn Syde, 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, Marc Drainville, GHD

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

3:00 p.m. Networking Break in Exhibit Hall

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 CSO Work along the Connecticut River
Kevin Trainor, Woodard & Curran

4:45 p.m. Session adjourns



TECHNICAL PROGRAM

Session 24: Surface Water Flow Path Mapping: It Helps with EVERYTHING

Thursday, April 11, 2024
3:45 p.m. - 4:45 p.m.

Room: MR21-MR22 - Level 6 Riverside
1.0 PDHs

Coordinator: Juli Beth Hinds, Birchline Planning LLC

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. 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. 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.

3:45 p.m. Introductions; show-of-hands participant polling on flooding and related communication issues

3:50 p.m. Overview of ArcHydro® flow path mapping
Patrick Lach, Hey & Associates, Inc.

4:10 p.m. Questions & discussion

4:15 p.m. Overview of Flowpath and Stormwater Assessment (FAST) tool
Amy DeBay, Focused Planning Solutions LLC; JB Hinds, Birchline Planning LLC

4:30 p.m. Interactive session around two tables with live software demonstration: Using the FAST tool

4:45 p.m. Session adjourns



TECHNICAL PROGRAM

Session 25: Modeling

Friday, April 12, 2024
8:30 a.m. - 11:45 a.m.

Room: MR24-MR25 - Level 6 Riverside
2.5 PDHs

Moderators: Ryan Brown, Innovyze; Mike Jankowski, Drummond Carpenter

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, RJN Group

9:30 a.m. Dancing with the Models. SWMM and Physical Models used to Optimize Design of the Cemetery Brook Drain Tunnel

Tatyana Dudiac; Shawn Lavoie, Laurie Locke, CDM Smith; Frederick J. McNeill, City of Manchester, New Hampshire

10:00 a.m. Networking break

10:15 a.m. 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 R. Drainville, GHD

10:45 a.m. 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; Sajjan Pokharel, Heather Ambrose, Fairfax County Department of Public Works and Environmental Services; Carl Chan, George Rhodes III, Megan McCollough, Stantec

11:15 a.m. Impacts of Rainfall Distribution on the Performance of Urban Storm Drainage Systems

Yun Tang; Kenneth Trefzger, HDR Inc.

11:45 a.m. Conference adjourns

TECHNICAL PROGRAM

Session 26: Innovations in Stormwater Data Collection and Management

Friday, April 12, 2024
8:30 a.m. - 10:00 a.m.

Room: MR16-MR17 - Level 6 Riverside
1.5 PDHs

Moderators: Dayton Marchese, Opti RTC; Bob Backman, Stormwater Investment Group

8:30 a.m. Evaluation of New Technology for Identifying Sewage Contamination in Stormwater Drainage Systems
Matthew Davis, Stephanie Alimena, Daniel Wolgemuth, Brown and Caldwell

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

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, Stantec; Cornelius Askew, City of Atlanta; and Catrina Gunn, Stantec

10:00 a.m. Session adjourns for networking break



TECHNICAL PROGRAM

Session 27: Trenchless Installation

Friday, April 12, 2024

Room: MR21-MR22 - Level 6 Riverside

8:30 a.m. - 10:00 a.m.

1.5 PDHs

Moderators: Dave Servidio, Wade Trim; Miles Bateman, Dewberry

8:30 a.m. Navigating the Rapids: Overcoming Obstacles in the Rehabilitation of a 90-inch Sewer

Mikaela Boyd, Jeff Farnsworth, Kimley-Horn

8:30 a.m. Trenchless Repair of Critical Sanitary Force Main

Larry Sullivan, Norwich Public Utilities; Ryan Graham, Andrea Braga, William Cotter, Jacobs

9:30 a.m. Innovative Auger Boring Sewer Rehabilitation Project to Renew a Century Old VCP Combined Sewer at over 30-Ft Depth

Jeff Lenner, Mott MacDonald; Toby Stutzman, PWSA

10:00 a.m. Session adjourns for networking break



TECHNICAL PROGRAM

Session 28: Collection System Inspection

Friday, April 12, 2024

Room: MR26-MR27 - Level 6 Riverside

8:30 a.m. - 11:45 a.m.

2.5 PDHs

Moderators: Ronald Thomann, Trekk Design Group; Greg Heath, AECOM

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

10:00 a.m. Networking break

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, Adrien Comeau, Stantec; Dan Bennington, Region of Peel; Jeremy Salerno, Stantec

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. Perils of Interceptor Surcharging

James Shelton, Arcadis; Andrew Peters, Evansville Water and Sewer Utility

11:45 a.m. Conference adjourns

Alternate Advancements In Multi-Sensor Condition Assessment For Pipe Rehabilitation

Csaba Ekes, SewerVUE

TECHNICAL PROGRAM

Session 29: Alternate Design Tools

Friday, April 12, 2024

Room: MR21-MR22 - Level 6 Riverside

10:15 a.m. - 11:45 a.m.

1.5 PDHs

Moderators: Karyn Stickel, Hubbell, Roth & Clark; Erin Abramson, City of Superior, WI

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 Réalis; Haydn Barnes, R2T

10:45 a.m. The Amazing AI Race: Pit Stops, Detours, and Green Flags

Alexander Palmatier, Kelly Alexander, Holly Curry, HDR; Tim McGarry, Eric Sullivan, SewerAI

11:15 a.m. Coordinating the Unknown – Using 3-D Models for Construction Coordination on the South Hartford Conveyance and Storage Tunnel

Brian McGuire; Allison Zeoli, Arcadis

11:45 a.m. Conference adjourns



TECHNICAL PROGRAM

Session 30: Inflow and Infiltration

Friday, April 12, 2024
10:15 a.m. - 11:45 a.m.

Room: MR16-MR17 - Level 6 Riverside
1.5 PDHs

Moderators: John Phillips, Parametrix; Susan Negrelli, MDC

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-Escobar, 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

11:45 a.m. Conference adjourns

Alternate Plan the Work, Work the Plan: Long-term I/I Mitigation in Practice

Miles Bateman, Dewberry Engineers, Inc.



EXHIBITION INFORMATION

EXHIBITION SCHEDULE

Wednesday, April 10 **10:00 am - 6:15 pm** **Exhibit Hall Open**
10:00 am - 10:45 am..... Networking Break
11:45 pm - 1:30 pm Networking Luncheon
3:00 pm - 3:45 pm Networking Break
3:15 pm - 3:40 pm Technology Spotlight I
4:45 pm - 6:15 pm Networking Reception

Thursday, April 11 **10:00 am - 3:45 pm** **Exhibit Hall Open**
10:00 am - 10:45 am..... Networking Break
10:15 am - 10:40 am..... Technology Spotlight II
11:45 pm - 1:30 pm..... Networking Luncheon
3:00 pm - 3:45 pm..... Networking Break

Individuals under 18 entering the Exhibition must be accompanied by a parent or guardian at all times. The parent or guardian must obtain a badge at registration and assumes all risk and responsibility for the minor's safety.

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<https://aquanuity.com>
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Chattanooga, TN 37343*

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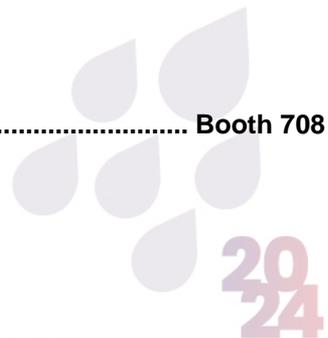
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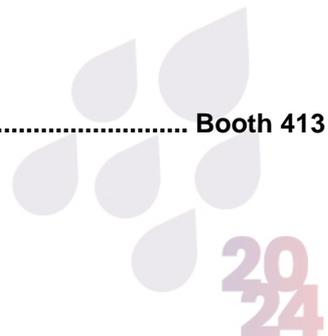
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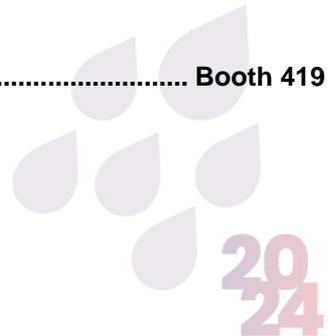
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A

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Anni Luck

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Andy Lukas

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Presenter Workshop
C

Lou Mammolette

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Moderator Session
22

Julia Manzano

Arcadis
Speaker Session 25

Dayton Marchese

OptiRTC
Speaker Session 04,
Moderator Session
16, 26

Kimberly Martin

CDM Smith
Moderator 07, 17

Bryant McDonnell

Hydroinformatics,
LLC
Presenter Workshop
A

Tim McGarry

SewerAI
Speaker Session 28

William McMillin

Jacobs
Moderator Session
15, 23

Frederick McNeill

City of Manchester
Speaker Session 23

**Vanessa
McPherson**

Arcadis
Moderator Session
06

Kate Mignone

AECOM
Speaker Session 07

Alex Miller

Parson + Associates
Speaker Session 02

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AquaShield, Inc.
Speaker Session 05

Timothy Mitchell

Department of
Water Resources
Speaker Session 19

Luis Montestruque

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A

Kraig Moodie

RJN
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12

Ken Moraff

U.S. EPA
Speaker Session 01

Dan Murray

U.S. EPA
Moderator Session
01

Tanvi Naidu

Arcadis
Speaker Session 30

Susan Negrelli

MDC
Moderator Session
30

Paris Neofotistos

SmartCover
Coordinator Session
03

Rosaleen Nogle

Buffalo Sewer
Authority
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A

Emerson Olander

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Speaker Session 10

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AtkinsRealis
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Moderator Session
13

Laurie Perkins

Wright-Pierce
Speaker Session 28

John Phillips

Parametrix
Moderator Session
09, 30

Travis Pike

City of Winter
Haven, FL
Speaker Session 03

Natalie

Pommersheim
Environmental
Partners
Moderator Session
11, 20

Christopher Proudfoot

Clark County Water
Reclamation District
Speaker Session 06

Jim Rasmus

Stantec
Speaker Session 04

James Ricker

Stantec Consulting
Ltd.
Speaker Session 28

Don Rigby

Madewell Products
Corp
Presenter Workshop
B

Virginia Roach

CDM Smith
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16

Bryan Rogne

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Speaker Session 22

Erin Rothman

Stormwater
Investment Group
Speaker Session 26

Anastasia Rudenko

GHD
Speaker Session 09,
23

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DC Water & Sewer
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Orenco Systems,
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Speaker Session 14

Emily Scerbo

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C

Zoe Schmitt

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McKenzie Schmitz

Jacobs
Speaker Session 07

Daniel Scrutchfield

Arcadis
Speaker Session 10

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27

Firat Sever

CDM Smith
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B

Dallas Shattuck

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Workshop C

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American Water
Speaker Session 13

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Varun Srinivasan

Trinnex
Speaker Session 10,
21

Leela Krishna

Sriramula
SpaceAge Labs Pte
Ltd
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Jennifer Steffens

OptiRTC
Speaker Session 22,
Moderator Session
22

Julie Stein

HDR
Presenter Workshop
C

Michael Stein

Wright Pierce
Engineers
Speaker Session 28

Karyn Stickel

Hubbell, Roth &
Clark
Moderator Session
19, 29

Timothy Sullivan

Veolia North
America
Speaker Session 17

Timothy Sumner

Crawford Murphy &
Tilly (CMT)
Coordinator
Workshop B

Yun Tang

HDR
Speaker Session 25

Mary Tchamkina

Raftelis
Speaker Session 05

Ronald Thomann

Trekk Design Group
Moderator Session
28

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Abe Torres

R2T
Speaker Session 29

Sean Trainor

Xylem / Evoqua
Water Technologies
Speaker Session 06

Kevin Trainor

Woodard & Curran,
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Speaker Session 23

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A

Rachel Urban

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Speaker Session 01

Vinta Varghese

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Speaker Session 30

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Consultants
Speaker Session 19

Erik Waligorski

Carollo Engineers
Speaker Session 11

Keith Walker

Waterline Renewal
Technologies
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B

Dave Walker

Detectronic Ltd
Speaker Session 16

Lisa Wallick

Detroit Water and
Sewerage Dept
Speaker Session 20

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Speaker Session 12

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Speaker Session 20

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Jefferson County
Commission
Speaker Session 15

Chris White

RedZone Robotics
Speaker Session 28

Daniel Wible

Jacobs
Speaker Session 20

Corey Williams

SmartCover
Speaker Session 22

Joel Wilson

WCS Engineering
Speaker Session 18,
21

Frederick Wu

MWRD of Greater
Chicago
Presenter Workshop
B

Alex Yescas

HDR
Presenter Workshop
C

Matthew Zelin

Hazen and Sawyer
Speaker Session 12

Allison Zeoli

Arcadis
Speaker Session 29



CONFERENCE SCHEDULE AT-A-GLANCE

Tuesday, April 9

7:30 a.m. - 5:00 p.m.	Registration
8:30 a.m. - 5:00 p.m.	Workshop A, Workshop B
1:30 p.m. - 5:00 p.m.	Workshop C

Wednesday, April 10

7:30 a.m. - 5:00 p.m.	Registration
8:30 a.m. - 10:00 a.m.	Opening General Session
10:00 a.m. - 6:15 p.m.	Exhibit Hall Hours
10:45 a.m. - 11:45 a.m.	Technical Sessions 1, 2, 3, 4
11:45 a.m. - 1:30 p.m.	Networking Luncheon
1:00 p.m. - 4:00 p.m.	Tour A
1:30 p.m. - 3:00 p.m.	Technical Sessions 5, 6, 8
1:30 p.m. - 4:45 p.m.	Technical Session 7
3:15 p.m. - 3:40 p.m.	Technology Spotlight I
3:45 p.m. - 4:45 p.m.	Technical Session 9, 10, 11
4:45 p.m. - 6:15 p.m.	Networking Reception

Thursday, April 11

8:00 a.m. - 5:00 p.m.	Registration
8:30 a.m. - 10:00 a.m.	Technical Sessions 12, 13, 14, 15
10:00 a.m. - 3:45 p.m.	Exhibit Hall Hours
10:15 a.m. - 10:40 a.m.	Technology Spotlight II
10:45 a.m. - 11:45 p.m.	Technical Sessions 16, 17, 18, 19
11:45 a.m. - 1:30 p.m.	Networking Luncheon
1:00 p.m. - 4:00 p.m.	Tour B
1:30 p.m. - 4:45 p.m.	Technical Sessions 20, 22, 23
1:30 p.m. - 3:00 p.m.	Technical Session 21
3:45 p.m. - 4:45 p.m.	Technical Session 24

Friday, April 12

8:00 a.m. - 12:00 p.m.	Registration
8:30 a.m. - 11:45 a.m.	Technical Sessions 25, 28
8:30 a.m. - 10:00 a.m.	Technical Sessions 26, 27
10:15 a.m. - 11:45 a.m.	Technical Sessions 29, 30
11:45 a.m.	Conference Adjourns



UPCOMING WEF EVENTS

Innovations in Treatment Technology Conference

May 21-24, 2024

Virginia Beach, VA

<http://www.wef.org/TreatmentTech>

Residuals and Biosolids Conference

June 18-21, 2024

Oklahoma City, OK

www.wef.org/ResidualsBiosolids

Circular Water Economy Summit

July 15-17, 2024

Dallas, TX

<http://www.wef.org/CWEsummit>

WEFTEC

October 5-9, 2024

New Orleans, LA

www.weftec.org



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Stormwater Resources

DESIGN OF WASTEWATER AND STORMWATER PUMPING STATIONS

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3RD EDITION

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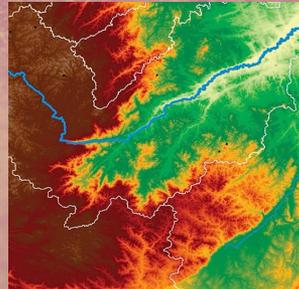
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