

#WEFCollections | www.wef.org/collectionsystems

2023

COLLECTION SYSTEMS CONFERENCE

CONFERENCE
JUNE 28 – 30

WORKSHOP
JUNE 27

EXHIBITION
JUNE 28 – 29

**KANSAS CITY CONVENTION CENTER
KANSAS CITY, MO**

This conference is hosted by the Water Environment Federation in cooperation with the Kansas Water Environment Association and Missouri Water Environment Association.





WEF Collection Systems Conference

June 27-30
Kansas City Convention Center

www.wef.org/CollectionSystems
#WEFCollections



KWEA

Kansas Water
Environment
Association



DEDICATED TO PROTECTING AND IMPROVING
MISSOURI'S WATER ENVIRONMENT

*This conference is hosted by the Water Environment Federation in cooperation
with the Kansas Water Environment Association and Missouri Water
Environment Association.*

To Our Friends and Colleagues:

Welcome to the great city of Kansas City! The Water Environment Federation in cooperation with the Kansas Water Environment Association and the Missouri Water Environment Association are excited to bring collection systems 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 system 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 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: Two workshops are being offered on Tuesday that will enhance your educational experience – *Smart Infrastructure for Collection Systems: Understanding the Physical, Digital, and Management Systems that can Make Sewers Smart* and *The Current State and Future Vision of Capacity Modeling and Asset Management*. Choose the one that will increase your agency's effectiveness when you return to the office.

Opening General Session: The Opening General Session will include a welcome from Kanas City, Missouri Mayor Quinton Lucas and Johnson County, Kansas County Manager Penny Postoak Ferguson. We will also hear from the Negro Leagues Baseball Museum President Bob Kendrick. Join your friends and colleagues and share the experience 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, including Data Management, Trenchless Technology, Planning, Green Infrastructure, Combined and Sanitary Sewer Overflows, Pump Stations and Force Mains, Modeling, Design and Construction, Asset Management, Research and Innovation, Inflow and Infiltration and Diversity, Equity and Inclusion. In addition, we have a session that will also highlight local projects in the Kansas City 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 and Exhibition: We encourage you to take part in our local tours. The first goes to several green infrastructure sites constructed as part of Kansas City's Smart Sewer Program. These sites are examples of how CSO reduction can also serve as amenities to the community. The second is a tour of two different types of facilities for managing wet weather flows with perspectives from both sides of the Missouri/Kansas state line.

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 Chair



Aaron Witt
KWEA Local Conference Chair



Brian Hess
MWEA Local Conference Chair

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Section headers are color coded by **General Conference Information** (aqua),
Program (yellow), and **Exhibits & Sponsors** (red).

CONFERENCE COMMITTEE



Dan Murray
US Environmental Protection Agency
WEF Specialty Conference Committee Chair



Aaron Witt
Johnson County Wastewater
KWEA Local Planning Group Chair
Co-Chair



Brian Hess
GBA
MWEA Local Planning Group Chair
Co-Chair

CONFERENCE COMMITTEE

SPECIALTY CONFERENCE COMMITTEE & LOCAL PLANNING GROUP

Alex Beck
Tetra Tech

Alex Darby
Professional
Engineering
Consultants

Amanda Bagwell
City of Lee's Summit,
MO

Amanda Johnson
Black & Veatch

Ashely Smart
Smart Water
Solutions

Charles McAllister
GBA

Chris Ramsey
Black & Veatch

CONFERENCE COMMITTEE

SPECIALTY CONFERENCE COMMITTEE & LOCAL PLANNING GROUP

Christy Willson Horner & Shifrin, Inc.	Jim Shelton ARCADIS	Paul Costa RJN
Cliff Cate Burns & McDonnell	Jimmy Stewart JS WW Consulting	Peter Garvey Dewberry
Dan Ott HDR	John Fletcher Duke's Root Control	Phil Hubbard HRSD
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Dianne Sumego dms water solutions	Kevin Vander Tuig Wade Trim	Scott Aurit HDR
Dillan Curtis Derby, KS	Kristi Steiner Jacobs	Scott Helfrick ADS Environmental Services
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Greg Heath AECOM	Lisa O'dell Little Blue Valley Sewer District	Tami Lorenzen Johnson County Wastewater
Jeff Thorn City of Lee's Summit, MO	Lucas Gillen TREKK Design Group	Tina Leitzel KWEA
Jennifer Steffens SUEZ	Melinda Harger City of Lawrence	Tony Zell City of Lawrence
Jennifer Welsch Metropolitan St. Louis Sewer District	Mike Piller Johnson County Wastewater	Walter Graf GHD
Jim Hewitt GPD	Mike Rudy Environmental Process Equipment Company	

CONFERENCE COMMITTEE

SPECIALTY CONFERENCE ABSTRACT REVIEW COMMITTEE

Ashley Smart
Smart Water
Solutions

Ashok Perera
Atkins North
America

Carol Hufnagel
Tetra Tech

Charles W Mcallister
GBA

Freddy Betancourt
Wade Trim

Jay Boyd
ADS Environmental
Services

Jennifer Baldwin
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Sudini
CDM Smith

Ryan Brown
Autodesk

Scott Belz
AECOM

Shashi
Kambhampati
Jacobs

Tami Lorenzen
JCW

Tim Sikma
City of Wixom

REGISTRATION

All events are held in the Kansas City Convention Center.

The Registration Desk in 2200 Lobby on Level 2 will be open at the following times:

Tuesday, June 27	7:30 a.m. – 5:00 p.m.
Wednesday, June 28	7:30 a.m. – 5:00 p.m.
Thursday, June 29	8:00 a.m. – 5:00 p.m.
Friday, June 30	8:00 a.m. – 11:00 a.m.

PRESENTER AND MODERATOR INFORMATION

All presenters, alternates, and moderators should sign in at the conference 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, June 28 — Room 2102A *Sessions 1 through 4	7:45 a.m. – 8:15 a.m.
Thursday, June 29 — Room 2102A *Sessions 5 through 17	7:45 a.m. – 8:15 a.m.

PENN VALLEY PARK CLEAN UP

Welcome to Kansas City! If you're arriving at the Collection Systems Conference a little early, you are invited to join us Tuesday afternoon for a park clean-up at Penn Valley Park. This event provides you an opportunity to give back to Kansas City, network with fellow professionals, and kick-off a great week with service! Hope to see you there! Gloves, safety vests, and trash bags will be provided.

- When: Tuesday, June 27 from 2:00 p.m. to 4:00 p.m.
- Where: Penn Valley Park – Kansas City, Missouri
- Gloves and bags will be provided by City of Kansas City, MO
- Safety vests will be provided by Tetra Tech

Please RSVP to Alex.Beck@tetrattech.com

COMMITTEE MEETING

WEF's Intelligent Water Technology (IWT) Community Meeting

Thursday June 29 | 10:15 a.m. – 10:45 a.m.

Room: 2102 A

Stop by the IWT Community's gathering at the Collection Systems Conference to meet other WEF members who share your interests and passions. All are welcome!

Collection Systems Community Meeting

Thursday, June 29 | 4:45 p.m. – 5:15 p.m.

Room: 2105

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 Conference. Use this opportunity to meet your fellow participants from across the country and abroad while enjoying a luncheon.

Wednesday, June 28 and Thursday, June 29

Exhibit Hall A

11:45 a.m. – 1:30 p.m.

Networking Reception

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

Wednesday, June 28

Exhibit Hall A

4:45 p.m. – 6:15 p.m.

Networking Breaks will take place in the Exhibit Hall at the following times:

Wednesday, June 28

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

Thursday, June 29

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

Friday, June 30 (in front of session rooms)

10:00 a.m. – 10:15 a.m.

WI-FI

Complimentary standard Wi-Fi is provided in all event guestrooms and meeting spaces in the. Please use the following information to access Wi-Fi.

Network Name: **WEF23WIFI**

Password: **CSSW2023**

CONFERENCE SAFETY AND SECURITY

Loews Kansas City Hotel: 1515 Wyandotte St, Kansas City, MO, 64108

Phone: (816) 897-7070

- Notify 911 for major medical emergencies. Dial #7003 for First Aid, security needs/minor emergencies, and loss or found or dial #0 for an operator.
- The Hospital, Fire Department, and the Police Department are all within 1-5 miles from the hotel.
- The hotel has First Aid/CPR/AED certified team members on-duty at all times.
- Guest fire evacuation notices are displayed in all guest and meeting rooms.
- Help button call points are clearly identified throughout the hotel and report directly to the Security Office.

Kansas City Convention Center: 301 W 13th St #100, Kansas City, MO 64105

Phone: (816) 513-5000

- Notify 911 in the event of a major medical emergency, contact Security at 816-513-5111 or your Event Manger for needs/minor emergencies.
- The Hospital, Fire Department, and the Police Department are all within 1-7 miles from the convention center.
- First aid rooms are located as follows: Show Office inside the exhibit hall, Level 3 outside of Exhibit Hall D; Grand Ballroom C service corridor; and Municipal Auditorium west concourse. An EMT is on site during events to provide care for minor first aid emergencies.
- AEDs used to treat sudden cardiac arrest are located in the back service hallways of each lobby and in first aid rooms.
- If a fire is suspected: Contact Security at 816-513-5111. They will notify the Fire Department.
- Black Emergency Phones are located on all levels of the facilities in multiple locations or call 911.

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: **#WEFCollections**. 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.

CODE OF CONDUCT

WEF is committed to providing a professional, safe, and welcoming environment during its in-person and virtual events for all water professionals and their guests. WEF expects all attendees, exhibitors, speakers, sponsors, media, and other participants to uphold our commitment to diversity and inclusion by helping us provide a positive conference environment for everyone.

As a conference 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.

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.

Reporting Concerns

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

For the complete Code of Conduct, please visit <https://www.weftec.org/about/about-weftec/code-of-conduct/>.

WEF VISION & CORE VALUES



WEF's Vision

Life free of water challenges

WEF's Core Values

- Lead boldly with purpose and agility
- Focus on our customers through empathy and service
- Collaborate for collective impact
- Integrate diversity, equity, and inclusion in all we do

For more information about WEF's new strategic plan, mission, and vision, visit <https://www.wefwaterfuture.org/>.

CONTINUING EDUCATION

Continuing Education credit files will be made available online after the event.

Participating attendees will receive an email within 4 weeks after each event informing them when CE Credit documentation becomes available. Attendees will be able to view and download a certificate and transcript detailing their event participation using the link provided in the event follow up messaging. These details are also posted under the Events & Education tab of www.WEF.org.

How Do I Receive Credit For this Conference?

In order to receive credit for participation in any of the education sessions attendees will be required to scan their badge when entering and exiting each session room. Credits obtained during this event will be available at the end of the conference 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.

When Will I Receive Credits For this Conference?

Certificates and transcripts are available for download during and post conference. 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 continuing education credits.

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.

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.

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 has its own set of CE credit requirements. Some licensing boards use different acronyms for approved training credits. In most instances 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 & PDH credits are available for Workshops to Professional Engineers licensed in the state of New York (NYSED).*

Please note: courses 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 continuing education 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.

MOBILE APP AND MY SHOW PLANNER

Mobile App and My Show Planner for #WEFCollections and #WEFStormwater



WEF is pleased to offer both a **Mobile App** and a mobile-friendly **My Show Planner**.

Set up your My Show Planner account to begin saving your favorite sessions, speakers, exhibitors, and sponsors to your plan and receiving recommendations.

Scan the QR code to download “**WEF**” app now from the Google Play OR App Store. All other web-enabled devices can access the Planner via the web: <https://cssw23.mobile.mapyourshow.com>.

We need your feedback! Please provide feedback on individual presentations, sessions, workshops, and more using the mobile app!

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 Conference 2023 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.

GET INVOLVED WITH WEF

The Water Environment Federation offers many ways to get engaged, build a network, and improve your skills as a water professional. See below for just a few examples.

Become a WEF Member

WEF is your access to water knowledge and invaluable networking opportunities with more than 30,000 professionals and thought leaders in water quality. For more information about membership categories, pricing, and member benefits, visit www.wef.org/membership/join-wef.

Join a WEF Community

More than 2,500 WEF members participate in WEF committee activities, developing conference programs, writing technical manuals and books, developing training materials and program content, and many other WEF program activities. Committees include Air Quality and Odor Control, Public Communications and Outreach, and more! To learn more about joining a committee, visit www.wef.org/committees. WEF membership is required to participate.

Submit to Water Environment Research

Published since 1928, Water Environment Research (WER) is an international multidisciplinary water resource management journal for the dissemination of fundamental and applied research in all scientific and technical areas related to water quality and resource recovery. In addition to original research articles, short communications, case studies, reviews, and perspectives are encouraged.

Continue your Education Online

In addition to in-person conferences, WEF also offers a variety of technical and leadership courses online. Through the WEF Learning Center, members and non-members can sign up to join webcasts, online courses, and virtual workshops. Visit <https://learn.wef.org> for more information. In addition, WEF also offers a blending learning program called the Water Leadership Institute which brings together water professionals from around the US, Canada, and world. Learn more at www.wef.org/wli.

Attend WEFTEC

WEFTEC is WEF's largest and most comprehensive conference, featuring dozens of technical sessions, a massive exhibit hall, and plenty of networking opportunities. WEFTEC 2023 will be held September 30 – October 4, 2023, in Chicago. More information can be found at www.weftec.org.

SPONSORS

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



www.teledyneisco.com/en-us/water-and-wastewater
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BRONZE ELITE

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ENVIRONMENTAL SERVICES

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LANYARDS

SESSIONS AT A GLANCE

Session Number	Session Title	Start Time	End Time	CE Credits
Tuesday, June 27				
Workshop A	Smart Infrastructure for Collection Systems: Understanding the Physical, Digital, and Management Systems that can Make Sewers Smart	8:30 AM	5:00 PM	0.6 CEUs
Workshop B	The Current State and Future Vision of Capacity Modeling and Asset Management	8:30 AM	5:00 PM	0.6 CEUs
Wednesday, June 28				
OGS	Opening General Session	8:30 A.M.	10:00 A.M.	1.5 GCHs
TS I	Technology Spotlight I	10:30 A.M.	11:50 A.M.	1.33 GCHs
Session 01	Inflow and Infiltration	10:45 AM	11:45 AM	1.0 PDH
Facility Tour B	Green Infrastructure Sites in Kansas City's Smart Sewer CSO Program	1:00 PM	4:30 PM	3 GCHs
Session 02	Technologies & Risk Management	1:30 PM	4:45 PM	2.5 PDHs
Session 03	Design & Construction	1:30 PM	4:45 PM	2.5 PDHs
Session 04	Smart Water Solutions	1:30 PM	4:45 PM	2.5 PDHs
Thursday, June 29, A.M.				
Session 05	Manholes	8:30 AM	10:00 AM	1.5 PDHs
Session 06	Trenchless Technologies	8:30 AM	10:00 AM	1.5 PDHs
Session 07	Interceptors & Tunnels	8:30 AM	10:00 AM	1.5 PDHs
TS II	Technology Spotlight II	10:15 AM	10:45 AM	0.5 PDHs
Session 08	CMOM	10:45 AM	11:45 AM	1.0 PDH
Session 09	Diversity, Equity, and Inclusion	10:45 AM	11:45 AM	1.0 PDH
Session 10	Smart Sewers Knock Out SSO in Chattanooga, TN	10:45 AM	11:45 AM	1.0 PDH

SESSIONS AT A GLANCE

Session Number	Session Title	Start Time	End Time	CE Credits
Thursday, June 29, P.M.				
Facility Tour A	SSO Wet Weather Control – Treatment & Storage	1:30 PM	4:30 PM	3.5 GCHs
Session 11	Pressure Systems	1:30 PM	4:45 PM	2.5 PDHs
Session 12	An In-depth Discussion of the 3rd Edition of WEF's Manual of Practice FD- Design of Wastewater and Stormwater Pump Stations	1:30 PM	3:00 PM	1.5 PDHs
TS III	Technology Spotlight III	3:15 PM	3:45 PM	0.5 GCHs
Session 13	Leveraging Sensors, Data and Digital to Address Modern Collection System Challenges	1:30 PM	4:45 PM	2.5 PDHs
Session 14	Force Mains & Pump Stations	3:45 PM	4:45 PM	1.0 PDH
Friday, June 30				
Session 15	Optimization & Modelling	8:30 AM	11:45 AM	3.0 PDHs
Session 16	Integrated Planning	8:30 AM	11:45 AM	3.0 PDHs
Session 17	Local Utilities	8:30 AM	11:45 AM	3.0 PDHs

PRE-CONFERENCE WORKSHOPS

(Additional fees required)

**Workshop A: Smart Infrastructure for Collection Systems:
Understanding the Physical, Digital, and Management
Systems that can Make Sewers Smart**

Tuesday, June 27, 2023

Room: 2201

8:30 a.m. – 5:00 p.m.

0.6 CEUs

- 8:30 a.m. Workshop Opening**
Ashley Smart, Smart Water Solutions
- 8:35 a.m. Keynote Speaker**
Chris Dinsmore, EBMUD
- 9:20 a.m. Physical Elements of a Smart Sewer**
Ashley Smart, Smart Water Solutions and Elizabeth Aguin, RJN Group
- 10:00 a.m. Networking and Coffee Break**
- 10:30 a.m. Interactive Session #1**
Kyle Logue, Greeley and Hansen
- 11:15 a.m. BSA Smart Sewer Implementation**
Rosaleen Nogle, Buffalo Sewer Authority
- 12:00 p.m. Break for Lunch**
- 1:00 p.m. Digital Elements of a Smart Sewer**
Chris Ranck, Black and Veatch
- 1:30 p.m. MSDGC Smart Sewer Implementation**
Reese Johnson, MSDGC
- 2:30 p.m. Interactive Session #2 – Part 1**
Chris Ranck, Black and Veatch
- 3:00 p.m. Networking and Coffee Break**
- 3:30 p.m. Interactive Session #2 – Part 2**
Chris Ranck, Black and Veatch
- 4:00 p.m. Roadblocks to Smart Systems**
Baxter Vieux, Applied Research Team, Inc.

Workshop A Agenda continues on next page

PRE-CONFERENCE WORKSHOPS

(Additional fees required)

**Workshop A: Smart Infrastructure for Collection Systems:
Understanding the Physical, Digital, and Management
Systems that can Make Sewers Smart**

**Tuesday, June 27, 2023
8:30 a.m. – 5:00 p.m.**

**Room: 2201
0.6 CEUs**

Workshop A Agenda continued from previous page

- 4:45 p.m. Final Speaker Panel**
Kyle Logue, Greeley and Hansen
- 4:55 p.m. Workshop Closing**
Kyle Logue, Greeley and Hansen
- 5:00 p.m. Workshop adjourns**

PRE-CONFERENCE WORKSHOPS

(Additional fees required)

Workshop B: The Current State and Future Vision of Capacity Modeling and Asset Management

Tuesday, June 27, 2023

Room: 2202

8:30 a.m. – 5:00 p.m.

0.6 CEUs

- 8:30 a.m. Welcome & Introduction**
- 8:40 a.m. Session 1: Best Practices for Hydraulic Modeling and Asset Management**
James Brescol, Tetra Tech; Carl Chan, Stantec; Eric Harold, Carollo; Lu Liu, Iowa State University
- 9:40 a.m. Learn and Engage**
- 10:00 a.m. Networking and Coffee Break**
- 10:30 a.m. Session 2: Real-Time Data Collection, Integration and Visualization for Asset Management**
Amin Mahdipour, Clean Water Services; Patrick Delaney, DHI; John Barton, MSDGC ; Andy Lukas, Brown & Caldwell
- 11:30 a.m. Learn and Engage**
- 12:00 p.m. Break for Lunch**
- 1:30 p.m. Session 3: Hydraulic Modeling and Asset Management in the Era of ‘Big Data’**
Fazle Rabbi, City of Houston; Patrick Keane, AWS; David Totman, Innovyze
- 2:30 p.m. Learn and Engage**
- 3:00 p.m. Networking and Coffee Break**
- 3:30 p.m. Session 4: Smart Operation with Integration of Tools**
Sunil K. Sinha, Virginia Tech; Hazem Gheith, Arcadis; Mason Throneburg, Confluency
- 4:30 p.m. Learn and Engage**
- 5:00 p.m. Workshop Adjourns**

OPENING GENERAL SESSION

Opening General Session
Wednesday, June 28, 2023
8:30 a.m. – 10:00 a.m.

Room: 2103 AB
1.5 GCHs

- 8:30 a.m. City of Kansas City Missouri – Welcome**
Quinton Lucas, Mayor of Kansas City, Missouri
- 8:40 a.m. Johnson County, Kansas – Welcome**
Penny Postoak Ferguson, Johnson County Manager
- 8:50 a.m. WEF Collection Systems Conference Chair Welcome**
Dan Murray, Specialty Conference Chair
Brian Hess (MWEA), Aaron Witt (KWEA), Local Planning Group Chairs
- 8:55 a.m. WEF Welcome**
Corey Williams, WEF Board of Trustees, SmartCover
- 9:05 a.m. Negro Leagues Baseball Museum**
Bob Kendrick, President
- 9:55 a.m. WEF CSSC 2024 Destination**
- 10:00 a.m. Session adjourns for networking break in exhibit hall**

TECHNOLOGY SPOTLIGHT I

Technology Spotlight I

Wednesday, June 28

10:30 a.m. - 11:50 a.m.

*The four exhibitors listed below will each hold the same 20-minute presentation three times in a row. Participants are invited to attend a different presentation at each of the times listed below. Choose the top three you would like to attend. Each presentation happens at the exhibitor's booth. Presentations kick off concurrently at: **10:35 AM**, **11:00 AM**, and **11:25 AM** in each of the five booths.*

10:30 AM	Mobile Session Introduction at entrance to exhibit hall
10:35 AM	4 Simultaneous Presentation A
11:00 AM	4 Simultaneous Presentation B
11:25 AM	4 Simultaneous Presentation C

Booth 309 **Locating Gas Pockets in Your Sewer Force Mains (and maybe a leak or two)A Do-it-Yourself Approach**
Mike Funk, INGU

Booth 110 **How does Pile Cloth Media Filtration Meet the Range of a Facilities Wet Weather Needs and Application?**
John Dyson, Aqua-Aerobic Systems, Inc.

Booth 506 **Moving the Goalposts - Enhancing Grinder Pump Reliability**
Derek Lachut, Environment One Corporation

Booth 414 **Leak Detection Technology for Gravity and Pressure Pipes**
Scott Dompke, M. E. Simpson Company

TECHNICAL PROGRAM

Session 01: Inflow and Infiltration

Wednesday, June 28, 2023

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

Room: 2105

1.0 PDH

Moderators: Kevin Vander Tuig, Wade Trim; Dianne Sumego, dms water solutions

10:45 a.m. Novel Asset Defect and Inflow & Infiltration Identification Techniques Used as Part of SF Bay Consent Decree Sewer Investigations
Christopher Dinsmore, Tracy Heidersbach, EBMUD

11:15 a.m. Hillsborough County Post CIP Lining Investigation and I/I Reduction
Edward Carpenetti, Stephanie Segler, Black & Veatch

11:45 a.m. Session adjourns for luncheon in exhibit hall

Alternate Blueprint Columbus - Comprehensive Public and Private I/I Reduction Program Exceeds Target
Hazem Gheith, Arcadis; Fang Cheng, City of Columbus
Department of Public Utilities; Qiuli Lu

FACILITY TOUR

(Additional fees apply)

**Tour B: Green Infrastructure Sites in Kansas City's Smart Sewer
CSO Program**

Wednesday, June 28, 2023

1:00 p.m. – 4:30 p.m.

3.0 GCHs

This tour is co-sponsored by the Collection Systems Conference and Stormwater Summit. KC Water has completed a variety of Green Infrastructure Projects in its Combined Sewer Area as part of their Smart Sewer Program to meet requirements of the City of Kansas City, Missouri's consent decree to reduce combined sewer overflows. This tour will start with an overlook of the confluence of the Kansas and Missouri Rivers to highlight the overall theme of tour and emphasize that the Green Infrastructure sites visited are designed to improve the health of our River systems. The tour will visit 3 to 4 project sites completed by KC Water that, in addition to achieving reduction of CSO's and improvements to water quality, also serve as community amenities and educational sites for residents and visitors to enjoy.

TECHNICAL PROGRAM

Session 02: Technologies & Risk Management

Wednesday, June 28, 2023

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

Room: 2104 A

2.5 PDHs

Moderators: Bill McMillin, Jacobs; David Servidio, Wade Trim

1:30 p.m. Utilizing Risk Management & Technology for Collection System Resiliency
Dustin Hill, Chris Ericksen, Luc Robinett, Burns & McDonnell

2:00 p.m. Ultrasonic Invasion USA: What Owners and Operators are Learning and How to Apply this 'Proven Technology' to Better Understand and Manage Pressure Pipe Applications
Chris McDowell, CPM Pipelines

2:30 p.m. Advancements in Multi-Sensor Inspection (MSI) Technologies
Jeffrey Griffiths, RJN Group; Veronica Alvarez, RedZone Robotics

3:00 p.m. Networking break in exhibit hall

3:45 p.m. Reality Capture: Emerging Tools to Meet Your Needs
Alan Stadler, Wade Trim

4:15 p.m. Asset Management in the Other Kansas City
Waldo Margheim, Burns & McDonnell; Joseph Barnes, Unified Government of Wyandotte County and Kansas City, Kansas; Stephen Roth, Alfred Benesch & Company

4:45 p.m. Session adjourns for networking reception in exhibit hall

TECHNICAL PROGRAM

Session 03: Design & Construction

Wednesday, June 28, 2023

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

Room: 2104 B

2.5 PDHs

Moderators: Jennifer Welsch, Metropolitan St Louis Sewer District; Christy Willson, Horner & Shifrin

1:30 p.m. CSO 032 and Third Street Consolidation Sewer – River Crossing: Under the River, and Through the Levee, to the Siphon Headbox We Go
David Murray, Arcadis

2:00 p.m. Big Approach to Small Diameter Sewer Rehabilitation: Design and Construction of Small Diameter Sewer Rehabilitation Projects
Travis Grohman, Travis Terrell Ramos, Plummer Associates, Inc.

2:30 p.m. Lining Charlotte's Main 78" Sewer: 64 Feet Deep, ½-Mile Between Manholes, Bridges Over Roads, Busy Shopping Mall, and 57 MGD
Aaron Frazier, CHA Consulting, Inc.; Keith Shirley, Charlotte Water

3:00 p.m. Networking break in exhibit hall

3:45 p.m. How Design and Construction of a Parallel Wet Weather Interceptor Meets Sustainable and Hydraulic Goals
Jonathan Vorheis, Jacobs; Joshua Garcia, Alissa Lockett, San Antonio Water System

4:15 p.m. Saddle Creek RTB – From Concept to Reality
John Weiland, David White, Wade Trim; Jake Hansen, Michael Arends, Michael Zelensky, City of Omaha Public Works

4:45 p.m. Session adjourns for networking reception in exhibit hall

TECHNICAL PROGRAM

Session 04: Smart Water Solutions

Wednesday, June 28, 2023

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

Room: 2105

2.5 PDHs

Moderators: Jennifer Steffens; Julia Matton, WCS Engineering

1:30 p.m. But Will It Work Here? Lessons Learned from Digital Adoption Change Management
Luis Montestruque, HydroDigital, LLC; Timothy Ruggaber; Reese Johnson, Metropolitan Sewer District of Greater Cincinnati; Eric Horvath, City of South Bend

2:00 p.m. Your Crystal Ball – How Cloud-Based SCADA Allows Operators To See The Future – And Avoid Problems
Mauritz Botha, XiO, Inc.

2:30 p.m. Artificial Intelligence and Data Intelligence Advantages for an Enhanced Source Control Monitoring System in Direct Potable Reuse
Hila Korach Rechtman, Quinn Moss, Alex Smolyak, Anne-Li Steutel-Maron, Guy Cohen, Kando

3:00 p.m. Networking break in exhibit hall

3:45 p.m. Flow Metering – A Powerful Tool to Build Smart Sewer Systems
Jianfeng Wen, Yanjin Liu, Peter Keenan, American Water

4:15 p.m. Utilities Leverage Smart Sewer Technology to Address Immediate Infrastructure Needs
Roland Gutierrez, San Antonio Water System; Jason Bromirski, Charlotte Water; Megan Livak, SmartCover

4:45 p.m. Session adjourns for networking reception in exhibit hall

Alternate How Smart Monitoring of Assets in the Field Scales to Every City's Requirements
Melanie Head, Croy Consultants; Ariel Stern, Ayyeka

TECHNICAL PROGRAM

Session 05: Manholes

Thursday, June 29, 2023

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

Room: 2104 A

1.5 PDHs

Moderators: Ashok Perera, Atkins Global; Phil Hubbard, HRSD

8:30 a.m. Clean Smarter, Not Harder: FreeFlowH2O

Jacob Mueller, HDR

9:00 a.m. Structural Manhole Rehabilitation - When it is Needed and How to Make it Happen

Jeff Maier, Garver

9:30 a.m. Manhole Inspection and Rehabilitation, ASCE Manuals and Reports on Engineering Practice No. 92 (MOP 92), 3rd Edition

Mark Wade, BlueWater Solutions Group, Inc.

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

TECHNICAL PROGRAM

Session 06: Trenchless Technologies

Thursday, June 29, 2023

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

Room: 2104 B

1.5 PDHs

Moderators: Dianne Sumego, dms water solutions; Kevin Vander Tuig, Wade Trim

8:30 a.m. Challenges and Lessons Learned of Horizontal Directional Drills in South Florida

Arnelio Alfonso, Julian Gomez, CHA Consulting; David Mancini, Jr, Roberto Lamazares, DMSI

9:00 a.m. Rock Run: Joliet's Large Diameter Rural Interceptor Rehabilitation

Catherine Morley, RJN Group Inc

9:30 a.m. Trenchless Technology Leveraged to Rehabilitate Trunk Sewer

Jennifer Glynn, Justin Kraetsch, Woodard & Curran

10:00 a.m. Session adjourns for networking break in exhibit hall

TECHNICAL PROGRAM

Session 07: Interceptors & Tunnels

Thursday, June 29, 2023

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

Room: 2105

1.5 PDHs

Moderators: David Servidio, Wade Trim; Jennifer Welsch, Metropolitan St Louis Sewer District

8:30 a.m. The Perils of Interceptor Surcharging: Unintended Consequences of In-Line Storage

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

9:00 a.m. Mitigating Geysers in Deep Sewer Tunnels

Edward Bradfuhrer, Mark Woodthorpe, GHD; Jeff Shiner, Metropolitan Saint Louis Sewer District

9:30 a.m. Horizontal Directional Drilling of a New 18-in Siphon Sewer under the Licking River

Sean O'Rourke, Hazen and Sawyer

10:00 a.m. Session adjourns for networking break in exhibit hall

TECHNOLOGY SPOTLIGHT II

Technology Spotlight II

Thursday, June 29

10:15 a.m. - 10:45 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: **10:15 AM** in each of the two booths.*

10:15 AM 2 Simultaneous Presentation A

Booth 522 Underground in the Cloud

Mark Grabowski, IT Pipes

Booth 113 A Picture is Worth a 1000 Words. Collection System Monitoring using Cameras with Artificial Intelligence

Jeremy Schueler, TREKK Design Group

TECHNICAL PROGRAM

Session 08: CMOM
Thursday, June 29, 2023
10:45 a.m. - 11:45 a.m.

Room: 2104 A
1.0 PDH

Moderators: Christy Willson, Horner & Shifrin; Jim Hewitt, GPD Group

10:45 a.m. Proactive CMOM: Richardson’s Holistic Approach to Collection System Assessment and Asset Management
Christina Hickey, City of Richardson; Mazen Kawasmi,
Stephen Johnson, Freese and Nichols, Inc.

11:15 a.m. Automated Capacity Evaluation For Sanitary Sewers Using API For ICM Model, Data-Lake, Web-GIS, and Microsoft Power Platform
William Kuehne, Ardurra; Fazle Rabbi, Pratistha Pradhan, City of Houston

11:45 a.m. Session adjourns for luncheon in exhibit hall

TECHNICAL PROGRAM

Session 09: Diversity, Equity, and Inclusion

Thursday, June 29, 2023

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

Room: 2104 B

1.0 PDH

Moderator: Corey Williams, SmartCover

- 10:45 a.m. Infrastructure for Opposites: Exploring How to Bridge the Gap between Small Businesses and Construction Contract Opportunities in the Wastewater Sector**
Michael Herrera, McCarthy Building Companies, Inc.
- 11:15 a.m. Case Study on NY WEA InFLOW Program**
Regina Harris, Buffalo Sewer Authority
- 11:45 a.m. Session adjourns for luncheon in exhibit hall**

TECHNICAL PROGRAM

Session 10: Smart Sewers Knock Out SSO in Chattanooga, TN
Thursday, June 29, 2023 **Room: 2105**
10:45 a.m. - 11:45 a.m. **1.0 PDH**

Moderators: Dan Murray, U.S. EPA; Jennifer Steffens

Speakers: Xavier Pedeux, Jacobs; Mark Heinzer, City of Chattanooga

Chattanooga owns and operates more than 1,300 miles of combined and sanitary sewers. During heavy rain events, these systems may discharge untreated sewage into the Tennessee River, its tributaries and sometimes onto City streets. The City is engaged in a wet weather Consent Decree Program to mitigate these sanitary sewer overflows (SSO), protect public health and the environment, and support economic development. This multi-phase, multi-year effort called Clear Chattanooga involves major capital and operational improvements to the 230 MGD capacity Moccasin Bend Wastewater Treatment Plant (WWTP) and the wastewater collection system including pipe rehabilitation, upgrades to the 8 Combined Sewer Overflow Treatment Facilities (CSOTF) and 79 pump station, and construction of 100 MG of new wet weather storage facilities called Equalization (EQ) Stations.

This experience could help utilities understand the benefits, tools available, approach, challenges, and lessons learnt of implementing Smart Sewers, and visualize results with real-time data. This Chattanooga experience will hopefully be something they will learn from and apply to maximize the use of their sewer system and protect the environment, public health and safety.

FACILITY TOUR

(Additional fees apply)

Tour A: SSO Wet Weather Control – Treatment & Storage
Thursday, June 29, 2023
1:30 p.m. - 4:30 p.m.

3.5 GCHs

There are multiple tools in the “toolbox” for managing wet weather flows in Separate Sanitary Sewer systems. This tour features two different types of facilities for managing wet weather flows that provide increased levels of service and protection from sanitary sewer overflows (SSOs). This tour also features two large utilities, one in Missouri and one in Kansas serving customers in the Kansas City metro area. The first stop is at a large extraneous flow storage basin in the Little Blue Valley Sewer District on the Missouri side of the state line. The second stop features a state-of-the-art wet weather treatment facility located at the recently completed Tomahawk Wastewater Treatment Facility in Johnson County, Kansas.

TECHNICAL PROGRAM

Session 11: Pressure Systems

Thursday, June 29, 2023

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

Room: 2104 A

2.5 PDHs

Moderators: Zachary Monge, Jacobs; Ashok Perera, Atkins Global

1:30 p.m. Asset Management Building Blocks, System-wide Lift Station Condition Assessment and Risk Profile Development

Emily Holtzclaw, Jacobs; Stephen Andersen, George Parizek, City of Omaha Public Works; Matthew Crowley, Jacobs

2:00 p.m. How To Inspect Critical Force Mains

Jacqueline Corey

2:30 p.m. Awakening the Sleeping Giant...Inspection of the 66-inch/96-inch Anacostia Force Main Gravity Sewer

Bisrat Abebe, DC Water; Sonia Oton, Mott MacDonald; Pono Hanson, Brown and Caldwell; Paul Rodriguez, Mott MacDonald

3:00 p.m. Networking break in exhibit hall

3:45 p.m. Isolation and Condition Assessment of the 36-inch Effingham Interceptor Force Main

Marina Doyle, Harry Hardy, Michael Gaffney, RK&K

4:15 p.m. Force Main Pressure Monitoring Technology Provides Cost-Saving Data to Extend Asset Life at Western Lake Superior Sanitary District

Dianne Mathews, Western Lake Superior Sanitary District; Nicole Kaiser, Alex Forbes, Syrinix Inc

4:45 p.m. Session adjourns

TECHNICAL PROGRAM

Session 12: **An In-depth Discussion of the 3rd Edition of WEF's Manual of Practice FD-Design of Wastewater and Stormwater Pump Stations**

Thursday, June 29, 2023
1:30 p.m. – 3:00 p.m.

Room: 2104 B
1.5 PDHs

Coordinator: Rob Otey, Freese & Nichols

Speakers: Mazen Kawasami, Bryan Jann, Jared Barber, Charles Kucherka, Clay Herndon, Jeff Hensley, Alan Hutson, Freese & Nichols

The purpose of this session is to provide updated technical information on the design of wastewater and stormwater pumping stations. WEF has recently published an updated edition (2022) of the FD-4 manual. The previous edition was published in 1993. During the editing process of the FD-4 manual, it became apparent that there is a wealth of information that needs to be disseminated in a concise format to the design engineer. The topics presented in this session are also provided in the manual, which is geared towards the experienced engineer. By attending this session, the attendees will be introduced to the following topics and the latest technologies to better increase their technical knowledge:

- Station Capacity
- Station Configuration & Design
- Pumping Systems
- Piping Systems
- Electrical Design
- Instrumentation & Control Systems
- Appurtenances

TECHNOLOGY SPOTLIGHT III

Technology Spotlight III

Thursday, June 29

3:15 p.m. - 3:45 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: **3:15 PM** in each of the two booths.*

3:15 PM 2 Simultaneous Presentation A

**Booth 306 Leveraging Smart Sewer Technology for Real-Time
Collection System Visibility**

Corey Williams, SmartCover Systems

**Booth 314 The Latest in Flowmeter Technologies, the Duratracker
EX, Designed for Hazardous Rated Locations, and the
Latest in Cellular Communications and Cloud-Based
Software**

Rick Dey, Teledyne ISCO

TECHNICAL PROGRAM

Session 13: Leveraging Sensors, Data and Digital to Address Modern Collection System Challenges

Thursday, June 29, 2023

Room: 2105

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

2.5 PDHs

Moderator: Steve Green, Stanley Group; Karyn Stickel, Hubbell, Roth & Clark

This session will focus on the inclusion of digital system and climate change strategies to be used in the master planning of collection systems to address modern utility challenges. Presentations will focus on master planning considerations such as a climate impact analysis and the utilization of sensors, analytical systems, software, digital twins and data science tools. Best practices for inclusion of a digital roadmap that integrates with the wastewater master plan will be offered. The final session will be an “Ask the Expert” opportunity for attendees, including an interactive discussion on prioritizing the various elements of the master planning needs discussed in the workshop. Attendees will leave the session understanding how to ensure their master planning efforts factor in climate change and digital technologies.

1:30 p.m. Addressing Modern Utility Challenges in the Master Planning Process using Climate Data and Digital Tools
Steve Green, Stanley Consultants

1:50 p.m. Climate Impact Planning; Boulder County case study
Pierce Holloway, Resilient Analytics

2:10 p.m. Leveraging Sensors for Conditions-Based Maintenance and Analysis; San Antonio, Charlotte and Pima County case studies
Megan Livak, SmartCover Systems

2:30 p.m. I&I Reduction Leveraging Sensor and Analytical Platform Technologies in Olathe, Kansas
Ira Speer, City of Olathe, Kansas

3:00 p.m. Networking Break in exhibit hall

3:45 p.m. Dashboard, Digital Twin and Data Science Tools to Manage and Optimize Collection Systems; Houston case study
Pablo Calabuig, GoAigua

4:15 p.m. Ask the Expert Panel and Interactive Discussion on Master Planning Priorities

4:45 p.m. Session adjourns

TECHNICAL PROGRAM

Session 14: Force Mains & Pump Stations

Thursday, June 29, 2023

3:45 p.m. - 4:45 p.m.

Room: 2104 B

1.0 PDH

Moderators: Cliff Cate, Burns & McDonnell; Brian Hess, GBA Team

3:45 p.m. Thinking Outside the Box, Inside of the Box – Planning, Designing, and Constructing Reliability Improvements into City's Forcemain System by Inserting 36-inch Valves with a Thrust Box Methodology

Scott Richards, Carollo Engineers; Christopher Roschek, Jose Huertas, City of Boynton Beach; Ricardo Borromeo, Angelica Gregory, Carollo Engineers

4:15 p.m. E Pluribus Unum – HRSD Brings the Many Towns of Virginia's Eastern Shore together with this Large Design-Build Sewer Collection Project

Phil Hubbard, HRSD; Alan Edwards, AECOM

4:45 p.m. Session adjourns

TECHNICAL PROGRAM

Session 15: Optimization & Modelling

Friday, June 30, 2023

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

Room: 2104 A

3.0 PDHs

Moderators: Gary Moore, Washington University; Suibing Liu, Jacobs

8:30 a.m. Optimizing the Operation of the Mill Creek Basin through Innovative Real-Time Control Strategy

Matthew Van Doren, Metropolitan Sewer District of Greater Cincinnati; William Knight, Xylem, Inc

9:00 a.m. Optimizing a Collection System to Address Future Uncertainty by Applying Real-Time Controls to Mitigate the Effects of Inflation and High Interest Rates

Ron Miller, Gwinnett County Department of Water Resources; Rahul Patel, Carl Chan, Muralikrishna Chelupati, Stantec

9:30 a.m. The Great Area-Wide Debate: O&M Cleaning Optimization using SSO Rates

Mark Holstad, Johanna Malouff, Alma Flores-Garcia, Albuquerque Bernalillo County Water Utility Authority

10:00 a.m. Networking break outside of session rooms

10:15 a.m. Integrating Smart Sewers with Smart Wet-Weather Treatment to Increase Capacity and Water Quality Resiliency

Alexander Szerwinski, Johnson County Wastewater; James Fitzpatrick, Black & Veatch; John Dyson, Aqua-Aerobics

10:45 a.m. Why Model Real Time When You Can Model the Future? The Fort Wayne Experience

Kristen Buell, City Utilities Engineering; Christopher Ranck, Jingjing Dai, Black & Veatch

11:15 a.m. Improving Model Hydrology Accuracy Using Antecedent Moisture Modeling (AMM): City of Joliet Granite Street Case Study

David Edgren, RJN Group; Owen Dean, City of Joliet, IL

11:45 a.m. Session adjourns

Session 15 agenda continues on next page

TECHNICAL PROGRAM

Session 15: Optimization & Modelling
Friday, June 30, 2023
8:30 a.m. - 11:45 a.m.

Room: 2104 A
3.0 PDHs

Session 15 agenda continued from previous page

Alternate **How the City of Houston Enhanced Wastewater CMOM Programs Using a Bidirectional Application Programming Interface Approach to Hydraulic Model Integration**
William Kuehne, Ardurra; Fazle Rabbi, City of Houston

Alternate **Successful Collaboration between Operations and Engineering by Leveraging Countywide Hydraulic Model to Improve Collection System Performance and Increase Operational Efficiencies**
Andrew Loo, Ron Miller, Minh-Thu Tran, Gwinnett County Department of Water Resources; Rahul Patel, Carl Chan; Muralikrishna Chelupati, Stantec

TECHNICAL PROGRAM

Session 16: Integrated Planning

Friday, June 30, 2023

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

Room: 2104 B

3.0 PDHs

Moderators: Nicholas Anderson, Stantec; Carol Hufnagel, Tetra Tech

8:30 a.m. When Less is More: A Wastewater Treatment Consolidation Case Study

Bailey Keller; Robert Upton, Jameson Appel, City of Pearland; Kendall Ryan, Jared Barber, Lindsey Reid, David Munn, Freese and Nichols

9:00 a.m. A Happy Marriage: Leveraging SSES and IDDE for Sewer and Drain System Management

Samantha Weidenbenner, Zach Henderson, Woodard & Curran

9:30 a.m. NetCreate: The Future of Wastewater Planning

Andy Taylor, Matt McDonald, Atkins North America

10:00 a.m. Networking break outside of session rooms

10:15 a.m. A Tale of Two CIPs: Implementing Separate Plans when Development Potential Outweighs Improvement Capability

Maia Dupes, Ethan Shires, Freese and Nichols; Kyle Burow, City of Kerrville

10:45 a.m. Reimagining Capital Delivery to Accelerate Infrastructure Rehabilitation

Andres Villarraga, WSSC Water; Joanna Brunner, Jason Carter, James Shelton, Arcadis

11:15 a.m. Swap Your Canoe for a Paddle Steamer: Reframe your Approach to Sustainability & Resiliency

Justin Waples, Central Contra Costa Sanitary District

11:45 a.m. Conference adjourns

Alternate Cloud Based Decision Making Business Model for Enterprise Infrastructure Management

Pradeep Nagarajan, Walter Graf, GHD; Bhavin Bhayani

TECHNICAL PROGRAM

Session 17: Local Utilities

Friday, June 30, 2023

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

Room: 2105

3.0 PDHs

Moderators: Deron Huck, Burns & McDonnell; Amanda Bagwell, City of Lee's Summit, MO

8:30 a.m. Sewer Separation in Downtown Kansas City: A Balancing Act

Bridget Harper, Katelyn Davison, Tetra Tech

9:00 a.m. KC Water's Trolley Trail Basin, From Abandoned Landfill to Unique Sewer Solution - Expect the Unexpected

Colleen Connor, Timothy Schneller, Nick Kleekamp, George Butler Associates; Brent Herring, Kansas City Water

9:30 a.m. Kansas City Smart Sewer Program Savings Using Adaptive Management – A Case Study

Sasa Tomic, Burns & McDonnell; Andy Shively, Kansas City Water; Alicia Chase, Burns & McDonnell

10:00 a.m. Networking break outside of session rooms

10:15 a.m. Johnson County Wastewater Private I/I, Past, Present, Future

Troy Young, Johnson County Wastewater; Ron Thomann, TREKK Design Group; Dan Ott, HDR

10:30 a.m. 15 Years (2007-2023) of AI Optimization Technology Innovation at Johnson County Wastewater

Joel Wilson, Julia Matton, WCS Engineering; Andrew Erikson, Optimatics; Ryan Eisele, HDR; Aaron Witt, Johnson County Wastewater

11:15 a.m. Johnson County Wastewater Collection System Asset Management Program – Lessons from Implementing a Comprehensive Asset Management Program

Ryan Eisele, HDR; Michael Piller, Frank Shell, Johnson County Wastewater

11:45 a.m. Conference adjourns

Alternate Sewer Rehabilitation: Pioneering New Planning Tools

Andrew Conard, Lamp Rynearson; Elango Thevar, Neer.ai

EXHIBITION INFORMATION

Exhibition Schedule

Wednesday, June 28

- 10:00 a.m. – 6:15 p.m. Exhibit Hall Open**
- 10:00 a.m. – 10:45 a.m. Networking Break
- 10:30 a.m. – 11:50 a.m. Technology Spotlight I: Collections
- 11:45 p.m. – 1:30 p.m. Networking Luncheon
- 3:00 p.m. – 3:45 p.m. Networking Break
- 3:15 p.m. – 3:45 p.m. Technology Spotlight I: Stormwater
- 4:45 p.m. – 6:15 p.m. Networking Reception

Thursday, June 29

- 10:00 a.m. – 3:45 p.m. Exhibit Hall Open**
- 10:00 a.m. – 10:45 a.m. Networking Break
- 10:15 a.m. – 10:45 a.m. Technology Spotlight II: Collections
- 11:45 p.m. – 1:30 p.m. Networking Luncheon
- 1:00 p.m. – 1:30 p.m. Technology Spotlight II: Stormwater
- 3:00 p.m. – 3:45 p.m. Networking Break
- 3:15 p.m. – 3:45 p.m. Technology Spotlight II: Collections

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

Due to the proprietary nature of the displays, photography of displays and materials is forbidden without exhibitors' express permission.

Exhibitor Directory Continues on Next Page

COLLECTION SYSTEMS EXHIBITOR DIRECTORY

As of June 7, 2023

For Company Descriptions, view Exhibitors in the mobile app.

ace pipe cleaning Booth 415

<https://acepipe.com>

Phone: 816-807-7939

6601-Universal Ave

Kansas City, MO 64015

ADS Environmental Services Booth 320

www.adsenv.com

Phone: 256-430-3366

340 The Bridge St, Ste 204

Huntsville, AL 35806

APX10, Inc Booth 521

<https://apx10.com>

Phone: 224-461-3139

247 Freshwater Way

Milwaukee, WI 53204

Autodesk, Inc Booth 208

www.autodesk.com/industry/water

Phone: 415-507-5000

The Landmark @ One Market, Ste 400

San Francisco, CA 94105

Core & Main Booth 120

www.coreandmain.com

Phone: 256-642-6368

1404 Stratford Rd SE

Decatur, AL 35601

Cretex Specialty Products Booth 121

www.cretexseals.com

Phone: 262-542-8153

N25 W23790 Commerce Cir, Ste E

Waukesha, WI 53188

Exhibitor Directory Continues on Next Page

COLLECTION SYSTEMS EXHIBITOR DIRECTORY

For Company Descriptions, view Exhibitors in the mobile app.

Doetsch
ENVIRONMENTAL SERVICES

Doetsch Environmental Services Booth 220

<https://doetschenv.com>

Phone: 810-499-9233

21221-Mullin Ave

Warren, MI 48089

Duke's Root Control, Inc Booth 412

www.dukes.com

Phone: 800-447-6687

400 Airport Rd, Ste E

Elgin, IL 60123

Environment One Corporation..... Booth 506

www.eone.com

Phone: 518-466-0617

2773 Balltown Rd

Niskayuna, NY 12309

Environmental Works, Inc Booth 213

www.environmentalworks.com

Phone: 417-890-9500

1455 E Chestnut Expy

Springfield, MO 65802

Envirosuite..... Booth 315

<https://envirosuite.com>

Phone: 866-583-0280

2330 East Bidwell St, Ste 210

Folsom, CA 95630

Faure Herman Meter, Inc Booth 519

www.faureherman.com

Phone: 713-623-0808

8280 Willow Place Dr N, Ste 150

Houston, TX 77070

Exhibitor Directory Continues on Next Page

COLLECTION SYSTEMS EXHIBITOR DIRECTORY

For Company Descriptions, view Exhibitors in the mobile app.

Ferguson Waterworks Booth 222

www.ferguson.com
Phone: 207-272-4431
12500 Jefferson Ave
Newport News, VA 23602

GBA Booth 408

https://gbateam.com
Phone: 913-492-0400
9801-Renner Blvd, Ste 300
Lenexa, KS 66219

GeoTree Solutions Booth 323

www.GeoTreeSolutions.com
Phone: 317-840-9671
1733 Majestic Dr, 101
Lafayette, CO 80026

Grande Water Management Systems Booth 214

www.grandeinc.com
Phone: 514-712-0011
3950 Montée Masson
Laval, QC H7B1C4
Canada

GWF USA, Inc Booth 511

www.gwf-group.com
Phone: 352-286-1564
PO Box 772817
Ocala, FL 34477

Hach Flow/McCrometer Booth 322

www.mccrometer.com
Phone: 951-652-6811
3255 W Stetson Ave
Hemet, CA 92545

Exhibitor Directory Continues on Next Page

COLLECTION SYSTEMS EXHIBITOR DIRECTORY

For Company Descriptions, view Exhibitors in the mobile app.

Helix Labs **Booth 406**

www.helixlabs.com
Phone: 817-876-1714
5050 Quorum Dr
Dallas, TX 75254

InfoSense, Inc **Booth 420**

https://infosense.com
Phone: 704-644-1164
8116 South Tryon St, Ste B3-203
Charlotte, NC 28273

INGU Solutions, Inc..... **Booth 309**

https://INGU.com
Phone: 844-446-4648
209 8 Ave SW, #400
Calgary, AB T2P1B8
Canada

InScope **Booth 118**

https://getinscope.com
Phone: 314-368-3335
16253 Swingley Ridge Rd, Ste 100
Chesterfield, MO 63017

ITpipes..... **Booth 522**

www.itpipes.com
Phone: 877-itpipes
10412 Menaul Blvd
Albuquerque, NM 87112

Ladtech, Inc **Booth 423**

www.ladtech.com
Phone: 816-382-9302
902 Barton Ave NW
Buffalo, MN 55313

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COLLECTION SYSTEMS EXHIBITOR DIRECTORY

For Company Descriptions, view Exhibitors in the mobile app.

Landia, Inc..... Booth 407

www.landiainc.com
Phone: 919-466-0603
*111-Triangle Trade Dr
Cary, NC 27513*

Logiball, Inc Booth 421

www.logiball.com
Phone: 418-656-9767
*4210 Jean-Marchand
Quebec, QC G2C 1Y6
Canada*

M.E. Simpson Co, Inc..... Booth 414

www.mesimpson.com
Phone: 800-255-1521
*3406 Enterprise Ave
Valparaiso, IN 46383*

Madewell Products Corporation Booth 212

www.madewell.net
Phone: 770-558-7330
*7561-Industrial Ct
Alpharetta, GA 30004*

NOV Fiber Glass Systems Booth 207

www.nov.com/fgs
Phone: 713-397-1532
*17115 San Pedro Ave, Ste 200
San Antonio, TX 78232*

OBIC, LLC Booth 517

www.obicproducts.com
Phone: 419-636-2684
*525 Winzeler Dr, Unit 1
Bryan, OH 43506*

Exhibitor Directory Continues on Next Page

COLLECTION SYSTEMS EXHIBITOR DIRECTORY

For Company Descriptions, view Exhibitors in the mobile app.

Orenco Systems Booth 413

www.orenco.com
Phone: 541-459-4449
814 Airway Ave
Sutherlin, OR 97479

Process Wastewater Technologies, LLC Booth 520

www.pwtech.us
Phone: 410-238-7977
9004 Yellow Brick Rd, Ste D
Baltimore, MD 21237

RedZone Robotics, Inc Booth 514

https://redzone.com
Phone: 412-476-8980
195 Thorn Hill Rd, Ste 110
Warrendale, PA 15086

REXA, Inc Booth 512

www.rexa.com
Phone: 508-436-6528
4 Manley St
West Bridgewater, MA 02379

Rhomar Industries Booth 508

www.rhomar.com
Phone: 800-688-6221
2107 E Rockhurst
Springfield, MO 65802

RJN Group, Inc Booth 307

https://rjn.com
Phone: 630-682-4700
2655 Warrenville Rd, Ste 225
Downers Grove, IL 60515

Exhibitor Directory Continues on Next Page

COLLECTION SYSTEMS EXHIBITOR DIRECTORY

For Company Descriptions, view Exhibitors in the mobile app.

RKI Instruments..... Booth 116

www.rkiinstruments.com
Phone: 510-441-5657
33248 Central Ave
Union City, CA 94587

RootX..... Booth 422

www.rootx.com
Phone: 800-844-4974
PO Box 7626
Salem, OR 97303

SewerAI Corporation Booth 206

www.sewerai.com
Phone: 206-457-7610
2815 Mitchell Dr, Ste 215
Walnut Creek, CA 94598

Smart Water Solutions..... Booth 313

www.smarth2o.solutions
Phone: 423-521-5770
134 N Market St, Unit 4485
Chattanooga, TN 37405

Smartcover Systems..... Booth 306

www.smartcoversystems.com
Phone: 913-233-6771
2110 Enterprise St
Escondido, CA 92029

Smith & Loveless, Inc Booth 221

www.SmithAndLoveless.com
Phone: 913-888-5201
14040 Santa Fe Trail Dr
Lenexa, KS 66215

Exhibitor Directory Continues on Next Page

COLLECTION SYSTEMS EXHIBITOR DIRECTORY

For Company Descriptions, view Exhibitors in the mobile app.

SpaceAge Labs Pte Ltd Booth 215
www.spaceage-labs.com/hydroeye
Phone: +65 97580295
84 Toh Guan Rd E
#04-03 Singapore Water Exchange Building
Singapore, 608501

Storm Water Inspection & Maintenance Services, Inc Booth 223
https://stormteclean.com
Phone: 949-670-6302
PO Box 1627
Discovery Bay, CA 94505

Taplin Group, LLC Booth 507
www.TaplinGroup.com
Phone: 269-375-9595
5140 W Michigan Ave
Kalamazoo, MI 49006



Teledyne ISCO Booth 314
www.teledyneisco.com
Phone: 402-429-1107
4700 Superior St
Lincoln, NE 68504

Tnemec Company, Inc Booth 308
www.tnemec.com
Phone: 816-326-4227
123 West 23rd Ave
North Kansas City, MO 64116

Trimble Booth 515
www.trimble.com/en/solutions/industries/utilities
Phone: 801-523-2751
11075 S State St, Ste 24
Sandy, UT 84070

Exhibitor Directory Continues on Next Page

COLLECTION SYSTEMS EXHIBITOR DIRECTORY

For Company Descriptions, view Exhibitors in the mobile app.

Trumbull MFG Booth 321

www.trumbull-mfg.com
Phone: 724-699-8776
3850 Hendricks Rd
Youngstown, OH 44515

Vaughan Company, Inc Booth 312

www.chopperpumps.com
Phone: 888-249-CHOP
364 Monte-Elma Rd
Montesano, WA 98563

Warren Environmental..... Booth 509

www.warrenenviro.com
Phone: 508-947-8539
137 Pine St
Middleborough, MA 02346

WinCan LLC Booth 513

www.wincan.com/en/home
Phone: 412-335-8271
300 Cedar Ridge Dr, Ste 308
Pittsburgh, PA 15205

Exhibitor Directory Continues on Next Page

STORMWATER EXHIBITOR DIRECTORY

As of June 7, 2023

For Company Descriptions, view Exhibitors in the mobile app.

Advanced Drainage Systems Booth 112

www.adspipe.com/
Phone: 480-686-3865
4640 Trueman Blvd
Hilliard, OH 43026

Aqua-Aerobic Systems, Inc Booth 110

www.aqua-aerobic.com
Phone: 815-654-2501
PO Box 2026
Loves Park, IL 61130

AquaShield, Inc Booth 107

www.aquashieldinc.com
Phone: 423-870-8888
2733 Kanasita Dr, Ste 111
Chattanooga, TN 37343

Axiom Instrumentation Services Booth 109

www.axiominst.com
Phone: 913-543-1690
5400 Johnson Dr, Ste 161
Mission, KS 66205

BioMicrobics, Inc Booth 115

www.biomicrobics.com
Phone: 913-422-0707
16002 W 110th St
Lenexa, KS 66219

In-Situ, Inc Booth 108

<https://in-situ.com>
Phone: 970-498-1500
221 East Lincoln Ave
Fort Collins, CO 80524

Exhibitor Directory Continues on Next Page

STORMWATER EXHIBITOR DIRECTORY

For Company Descriptions, view Exhibitors in the mobile app.

OptiRTC..... Booth 106

<https://optirtc.com>

Phone: 617-366-7585

98N Washington St, Ste 210

Boston, MA 02114

PaveDrain, LLC..... Booth 114

www.pavedrain.com

Phone: 888-579-5339

103 Main St

Keystone, IA 52249

TREKK Design Group, LLC Booth 113

www.trekllc.com

Phone: 816-877-8687

1411-E 104th St

Kansas City, MO 64131

Exhibitor Directory Continues on Next Page

EXHIBITION FLOOR PLAN

120	Core & Main	121	Cetex Specialty Products	220	Resch Environmental Services	221	Smith & Loveless Inc.	320	ASE Environmental Services	321	Turnbull MFG	420	Infosense Inc.	520	Process Waterwater Technology LLC	521	APXY10 Inc.		
118	InScope	222	Ererguson Waterworks	322	MOJO Environmental	422	Rouxk	522	Triples	519	Faure Herman Merer Inc.	517	OBIC LLC	515	Trimble	511	GWf USA Inc.		
116	RFI Instruments Inc.	115	Biolockbox Inc.	214	Grande Water Management Systems	215	SpaceAge Pte Ltd	314	Teledyne ISCO	315	Envirosite	414	M.E. Simpson Co Inc.	514	RedZone Robotics Inc.	513	WinCan LLC	509	Warren Environmental
114	PaveDrain LLC	113	TREKK Design Group LLC	212	Waldwell Corporation	213	Environmental Works Inc.	312	Vaughan Company, Inc.	313	Smart Smart Solutions	412	Duke's Root Control, Inc.	512	REXA Inc.	510	Wincan LLC	507	Taplin Group, LLC
112	Advanced Drainage Systems	110	Agua Aerobic Systems Inc.	208	Autodesk Inc.	207	NOV Fiber Glass Systems	308	Thremc Company, Inc.	309	INGU Solutions Inc.	408	GBA	407	Landia, Inc.	508	Rhyonat Industries	506	Environment One Corporation
108	In-Situ, Inc.	109	Asian Hydro Systems	206	General Corporation	306	Sprinkover Systems	307	RIN Group, Inc.	406	Helix Labs	505		504		503		502	
106	OptiRTC	205		305		305		405		505		504		503		502		501	

Stormwater Pavilion

PRESENTER AND MODERATOR DIRECTORY

Elizabeth Aguin

RJN Group Inc
Presenter Workshop
A

Arnelio Alfonso

CHA Consulting
Speaker Session 06

Veronica Alvarez

RedZone Robotics
Speaker Session 02

Nicholas Anderson

Stantec
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16

Amanda Bagwell

City of Lee's Summit
Moderator Session
17

Jared Barber

*Freese and Nichols,
Inc.*
Presenter Session
12

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*Metropolitan Sewer
District of Greater
Cincinnati*
Presenter Workshop
A

Mauritz Botha

XiO, Inc.
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Edward Bradfuhrer

GHD
Speaker Session 07

James Brescol

Tetra Tech
Presenter Workshop
B

Jason Bromirski

Charlotte Water
Speaker Session 04

Pablo Calabuig

GOAIGUA, INC.
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Burns & McDonnell
Moderator Session
14

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Speaker Session 16

Guy Cohen

Kando
Speaker Session 04

Andrew Conard

Lamp Rynearson
Speaker Session 17

Colleen Connor

GBA
Speaker Session 17

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Black & Veatch
Speaker Session 11

**Christopher
Dinsmore**

EBMUD
Speaker Session 01,
Presenter Workshop
A

Marina Doyle

RK&K
Speaker Session 11

Maia Dupes

Freese and Nichols
Speaker Session 16

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RJN Group
Speaker Session 15

Alan Edwards

AECOM
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HDR
Speaker Session 17

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Faughtenberry**

*Freese and Nichols,
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Presenter Session
12

James Fitzpatrick

Black & Veatch
Speaker Session 15

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Hazem Gheith

Arcadis
Speaker Session 01

Steve Green

Stanley Group
Coordinator Session
13

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RJN Group
Speaker Session 02

Travis Grohman

Plummer Associates, Inc.
Speaker Session 03

Roland Gutierrez

San Antonio Water System
Speaker Session 04

Eric Harold

Carollo Engineers
Presenter Workshop B

Bridget Harper

Tetra Tech
Speaker Session 17

Melanie Head

Croy Consultants
Speaker Session 04

Mark Heinzer

City of Chattanooga
Speaker Session 10

Jeff Hensley

Freese and Nichols, Inc
Presenter Session 12

Clay Herndon

Freese and Nichols
Presenter Session 12

Brian Hess

GBA Team
Moderator Session 14

Jim Hewitt

GPD Group
Moderator Session 08

Dustin Hill

Burns & McDonnell
Speaker Session 02

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Albuquerque Bernalillo County Water Utility Authority
Speaker Session 15

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HRSD
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Moderator Session 05

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Burns & McDonnell
Moderator Session 17

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Resilient Analytics
Speaker Session 13

Carol Hufnagel

Tetra Tech
Moderator Session 16

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Presenter Session 12

Bryan Jann

Freese & Nichols, Inc.
Presenter Session 12

Stephen Johnson

Freese and Nichols, Inc.
Speaker Session 08

Reese Johnson

Metropolitan Sewer District of Greater Cincinnati
Presenter Workshop B

Nicole Kaiser

Syrinx
Speaker Session 11

Michael Karl

Brown and Caldwell
Presenter Workshop B

Peter Keenan

American Water
Speaker Session 04

Bob Kendrick

Negro Leagues Baseball Museum
Speaker OGS

William Knight

Xylem, Inc
Speaker Session 15

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Woodard & Curran
Speaker Session 06

William Kuehne
Ardurra
Speaker Session 08

Suibing Liu
Jacobs
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15

Kyle Logue
Greeley and Hansen
Coordinator
Workshop A

Ting Lu
*Clean Water
Services*
Presenter Workshop
B

Liu Lu
*Iowa State
University*
Presenter Workshop
B

Jeff Maier
Garver
Speaker Session 05

Waldo Margheim
Burns & McDonnell
Speaker Session 02

Julia Matton
WCS Engineering
Moderator Session
04

Matt McDonald
Atkins
Speaker Session 16

Chris McDowell
CPM Pipelines
Speaker Session 02

William McMillin
Jacobs
Coordinator
Workshop B,
Moderator Session
02

Ronald Miller
*Gwinnett County
Department of Water
Resources*
Speaker Session 15

Zachary Monge
Jacobs
Moderator Session
11

Luis Montestruque
HydroDigital, LLC
Speaker Session 04

Gary Moore
*Washington
University*
Moderator Session
15

Catherine Morley
RJN Group Inc
Speaker Session 06

Quinn Moss
*Evoqua Water
Technologies*
Speaker Session 04

Jacob Mueller
HDR
Speaker Session 05

Dan Murray
U.S. EPA
Moderator Session
01

David Murray
Arcadis
Speaker Session 03

Pradeep Nagarajan
GHD
Speaker Session 16

Sean O'Rourke
Hazen and Sawyer
Speaker Session 07

Robert Otey
*Freese and Nichols,
Inc.*
Coordinator Session
12

Sonia Oton
Mott MacDonald
Speaker Session 11

Xavier Pedoux
Jacobs
Coordinator Session
10

Ashok Perera
Atkins Global
Moderator Session
05, 11

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Fazle Rabbi

City of Houston
Speaker Session 15,
Presenter Workshop
B

Christopher Ranck

Black & Veatch
Speaker Session 15,
Presenter Workshop
A

Scott Richards

Carollo Engineers
Speaker Session 14

Kendall Ryan

Freese and Nichols
Speaker Session 16

Stephanie Segler

Black & Veatch
Speaker Session 01

David Servidio

Wade Trim
Moderator Session
02, 07

James Shelton

Arcadis
Speaker Session 07

Keith Shirley

Charlotte Water
Speaker Session 03

Sunil Sinha

Virginia Tech
Presenter Workshop
B

Ashley Smart

Smart Water
Solutions
Presenter Workshop
A

Ira Speer

City of Olathe, KS
Speaker Session 13

Alan Stadler

Wade Trim
Speaker Session 02

Jennifer Steffens

Moderator Session
04, 10

Karyn Stickel

Hubbell, Roth &
Clark
Moderator Session
13

Dianne Sumego

dms water solutions
Moderator Session
01, 06

Alexander

Szerwinski
Johnson County
Wastewater
Speaker Session 15

Sasa Tomic

Burns & McDonnell
Speaker Session 17

Kevin Vander Tuig

Wade Trim
Moderator Session
01, 06

Matthew Van Doren

Metropolitan Sewer
District of Greater
Cincinnati
Speaker Session 15

Baxter Vieux

Applied Research
Team Inc
Presenter Workshop
A

Jean Vieux

Applied Research
Team, Inc.
Presenter Workshop
A

Andres Villarraga

WSSC Water
Speaker Session 16

Jonathan Vorheis

Jacobs Engineering
Speaker Session 03

Mark Wade

BlueWater Solutions
Group, Inc.
Speaker Session 05

Justin Waples

Central Contra
Costa Sanitary
District
Speaker Session 16

Samantha

Weidenbenner
Woodard & Curran
Speaker Session 16

PRESENTER AND MODERATOR DIRECTORY

John Weiland

Wade Trim
Speaker Session 03

Jianfeng Wen

American Water
Speaker Session 04

Joel Wilson

WCS Engineering
Speaker Session 17

Jennifer Welsch

Metropolitan St
Louis Sewer District
Moderator Session
03, 07

Corey Williams

SmartCover
Systems
Speaker Session 13

Troy Young

Johnson County
Wastewater
Speaker Session 17

Christy Willson

Horner & Shifrin
Moderator Session
03, 08

CONFERENCE SCHEDULE AT-A-GLANCE

Tuesday, June 27

7:30 a.m. – 5:00 p.m.	Registration
8:30 a.m. – 5:00 p.m.	Workshop A
8:30 a.m. – 5:00 p.m.	Workshop B

Wednesday, June 28

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
10:30 a.m. – 11:50 a.m.	Technology Spotlight I
10:45 a.m. – 11:45 a.m.	Technical Session 1
11:45 a.m. – 1:30 p.m.	Networking Luncheon
1:30 p.m. – 4:30 p.m.	CS Facility Tour B
1:30 p.m. – 4:45 p.m.	Technical Sessions 2, 3, 4
4:45 p.m. – 6:15 p.m.	Networking Reception

Thursday, June 29

8:00 a.m. – 5:00 p.m.	Registration
8:30 a.m. – 10:00 a.m.	Technical Sessions 5, 6, 7
10:00 a.m. – 3:45 p.m.	Exhibit Hall Hours
10:15 a.m. - 10:45 a.m.	Technology Spotlight II
10:45 a.m. – 11:45 p.m.	Technical Sessions 8, 9, 10
11:45 a.m. – 1:30 p.m.	Networking Luncheon
1:00 p.m. – 4:30 p.m.	CS Facility Tour A
1:30 p.m. – 4:45 p.m.	Technical Sessions 11, 13
1:30 p.m. – 3:00 p.m.	Technical Session 12
3:15 p.m. - 3:45 p.m.	Technology Spotlight II
3:45 p.m. – 4:45 p.m.	Technical Session 14

Friday, June 30

8:00 a.m. – 11:00 a.m.	Registration
8:30 a.m. – 11:45 a.m.	Technical Sessions 15, 16, 17
11:45 a.m.	Conference Adjourns

UPCOMING WEF EDUCATION & TRAINING EVENTS

WEF Circular Water Economy Summit

July 18-20, 2023
Nashville, Tennessee
www.wef.org/cwesummit

WEFTEC

September 30-October 4, 2023
Chicago, Illinois
www.weftec.org

Residuals and Biosolids Conference

June 21-24, 2024
Oklahoma City, Oklahoma
www.wef.org/ResidualsBiosolids

IN MEMORIAM

1948 - 2023

IN MEMORY OF RUDY FERNANDEZ

Rudy Fernandez was an industry leader being one of the first to track and develop mitigation measures to combat migration of inflow/infiltration.

As a member of the Water Environment Federation (WEF) since 1983, Rudy was very active in the Collection Systems Community. In addition to being chairman, he served on the CLC Conveyance and Watershed COP, Collection Systems Awards, Collection Systems Technical Practice Group, Collection Systems Workshops Focus Group, Collection Systems WEFTEC Focus Group, Collection Systems Member Engagement Focus Group, Collection Systems Steering Focus Group, and Collection Systems Symposia. He was also a longtime member and former chairman of the Florida Collection Systems Community. Rudy was a recipient of the Golden Manhole Award and the Golden Shovel Award. He was a Co-Author and Co-Chair of the 2nd edition of the WEF Special Publication: Confined Space Entry.

A native of Cuba, Rudy was one of thousands of unaccompanied children brought to America during "Operation Peter Pan" a U.S. Government sponsored airlift exodus conducted to protect them from the country's communism and communist leadership. He went on to graduate from Princeton University with a degree in Civil Engineering and Geological Engineering. His professional career began as a founding principal of RJN Group. He also worked for Parsons Brinckerhoff, and in 2015 he became program manager at Jacobs Engineering.

Outside of his professional life, he was absolutely devoted to his wife, Donna, and son, David. He had a 2nd degree black belt in Karate, was a railfan and model railroader, beekeeper, and baseball fan.

Rudy's legacy will live on in the work of the Water Environment Federation and the Collection Systems Industry.



1948 - 2023

IN MEMORY OF HIRAM L. TANNER, JR.

Hiram Tanner had an extraordinary impact on the water industry throughout his career. His dedication and commitment to the field has been recognized through his various roles and awards.

In 2004, Mr. Tanner joined the Water Environment Federation (WEF) as a member of the Chesapeake Water Environment Association (WEA) and the Virginia WEA. He served as President of the Chesapeake WEA from 2009-2010 and joined the WEF Collection Systems Community in 2010. He went on to serve as President of the Chesapeake WEA, was appointed as WEF delegate from 2011-2014 and served on the Maryland Waterworks Board of Directors.

He was a recipient of the prestigious Arthur Sidney Bedell award and in 2019 he joined the WEF Air Quality and Odors Community.

Mr. Tanner has made a lasting impression on the water industry. His legacy will continue to live on in the work of the Water Environment Federation.



*Sympathy cards can be addressed to Gloria Johnson (Hiram's wife) at
12308 Longwater Dr., Mitchellville, MD 20721.*

NOTES



SEPT. 30–OCT. 4, 2023
Chicago, IL

as essential

as clean water

An illustration of two water professionals standing under a pipe. On the left, a man in a yellow hard hat and blue overalls stands with his arms crossed. On the right, a woman in an orange safety vest and blue pants holds a yellow hard hat. A single water drop is falling from the pipe above them. The background is a light blue circular shape.

This **must-attend** annual gathering brings together water quality professionals to discuss how we can **ensure access to clean water** for all and create a **more equitable, sustainable future.**

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