#WEFCollections

COLLECTION **SYSTEMS**

SEWERS IN THE MOTOR CITY -THE ENGINE OF OUR INDUSTRY!

CONFERENCE PROGRAM

PRE-CONFERENCE WORKSHOPS April 19

CONFERENCE April 20-22 | April 20-21

EXHIBITION







This conference is held by the Water Environment Federation in cooperation with the Michigan Water Environment Association.





VIEW THE COLLECTION SYSTEMS CONFERENCE 2022
PROCFEDINGS HERE!

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Collection Systems Conference 2022

April 19-22 Huntington Place Detroit, Michigan

#WEFCollections



This conference is organized by the Water Environment Federation in cooperation with the Michigan Water Environment Association.

To Our Friends and Colleagues:

Welcome to the great city of Detroit! The Water Environment Federation in cooperation with the Michigan 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. After almost two years of living through the COVID-19 pandemic, we acknowledge that engagements like this have been drastically altered from what we had become accustomed to. 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 a survey to provide us with your valuable input or share your thoughts with staff.

Conference Highlights

When you arrive: Detroit, the Motor City, has many great attractions in and around downtown to check out. Just outside of the hotel is the Detroit River Walk, a 3.5 mile walk along the river offering view of the river, downtown Detroit, and our international neighbors in Windsor, Ontario. Snap a photo with the Spirit of Detroit or enjoy the offerings in Campus Martius. For art lovers, the Detroit Institute of Arts is a great local attraction featuring the Diego Rivera "Detroit Industry Murals". Architectural walking tours are available which highlight the diverse City buildings. At the very least, be sure to check out the Guardian Building with its art deco design and stunning lobby area. For those looking to venture outside of the city, the Henry Ford Museum is a great, family-friendly attraction. There are many great eatery establishments and Michigan as a whole is known for great breweries. Come early and/or stay late. Detroit has lots to offer for all family members.

Pre-Conference Workshops: Two Workshops are being offered on Tuesday that will enhance your educational experience with a focus on evaluating and mitigating inflow and infiltration in collection systems – <u>Asset Management-What's in it for Me?</u> and <u>Using Design Thinking to Uncover Insights on Collection Systems.</u> 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 Detroit Water and Sewerage Department and Detroit Riverfront Conservancy. Join your friends and colleagues and share the experience to kick-off the three-day conference of diverse technical sessions, mobile session, 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, a session will also highlight local projects in Detroit and the surrounding communities. Two 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 one or both of our local tours. The first goes to the GLWA Connor Creek CSO. The second is a site visit to the South Huron Valley Utility Authority Treatment Plant and Collections System.

We encourage you to make the most of our 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 conference steering committee, the dedicated staff, and all moderators and speakers, we invite you to make this conference experience your best yet!

Thank you for joining us!

Sincerely,

Jennifer Welsch Conference Co-chair

Jennfer Welsch

Karyn Stickel Conference Co-Chair

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

CONFERENCE AND SUMMIT CO-CHAIRS



Jennifer Welsch Specialty Conference Committee Chair Metropolitan St. Louis Water District



Karyn Stickel Local Planning Group Chair *HRC*

CONFERENCE COMMITTEES

SPECIALTY CONFERENCE COMMITTEE & LOCAL PLANNING GROUP

Scott Aurit HDR	John Fletcher Duke's Root Control	Kip Koszewski HESCO
Nate Coffin HRC	Peter Garvey Dewberry	Julia Matton WSC Engineering
Jen Cook Hazen and Sawyer	Walter Graf GHD	Mike Michalak HRC
Paul Costa RJN Group	Paige Hammerl HRC	Chad Miller Maxliner
Kyle Curie OHM	Greg Heath AECOM	Gary Moore Washington University
John Devlin	Jim Hewitt	- ,
Aquafy	GPD	Jen Morreale HRC
Sara Ferrance	Natasha Jansen	
Fairfax County	City of Ottawa	

CONFERENCE COMMITTEES

SPECIALTY CONFERENCE COMMITTEE & LOCAL PLANNING GROUP, continued

Jimmy Stewart Dan Murray Maria Sedki US EPA FTCH JS WW Consulting Nicole Pasch Dave Servidio Dianne Sumego HRC Mott Macdonald dms water solutions Priya Persaud Jim Shelton Srini Vallabhaneni Region of Peel Kansas City Water Arcadis Dan Royal Ashley Smart Kevin Vander Tuig **HRC Smart Water** Wade Trim Solutions Sarah Rutkowski Brian VanZee FTCH Jennifer Steffens C2AE SUEZ Water Technologies Christy Willson

Dan Schechter GHD

Doetsch

Kristi Steiner Joe Schotthoefer Jacobs

Horner & Shifrin, Inc.

HEALTH AND WELL-BEING

WEF's priority at all meeting and events is always the health and safety of our community. Refer to this conference's website for the most current protocols posted under "Health and Well-Being": www.wef.org/CollectionSystems

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 workshop or technical session presentation, or exhibit booth 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 or exhibitor, who may provide the information or grant permission.

CODE OF CONDUCT

WEF's Vision

A community of empowered professionals creating a healthy global water environment.

Core Values

Leadership, Passion, Scholarship, and Collaboration, and Service

WEF Policies

WEF respects and takes the broadest view of human diversity and inclusion and is committed to providing a professional, safe, and welcoming environment at its events for all water professionals and their guests. WEF expects all sponsors, speakers, attendees, media, exhibitors and other participants to uphold our commitment to diversity and inclusion by helping us provide a positive conference environment for everyone.

For more information, please see WEF's Diversity and Inclusivity Policy, as well as WEF's Non-Discrimination and Harassment Policy at www.wef.org/about/about-wef.

Reporting Concerns

If you have any concerns during this conference, please stop by the conference registration desk or you may email the WEF Executive Director Walter Marlowe at wmarlowe@wef.org.

CONFERENCE SAFETY AND SECURITY

Huntington Place

1 Washington Boulevard Detroit, MI 48226

Phone: (313) 877-8777

In case of an emergency, use your cell phone to notify Huntington Place Security at 313-877-8281 and call 911. Huntington Place Security staff are CPR trained and there is a police station within $\frac{1}{4}$ of a mile of the convention center.

In the event of an emergency and evacuation is required, all attendees should exit the facility by using the closest marked exit door and/or stairwell. Do not use elevators. Once you exit the building, please proceed to Hart Plaza. Hart Plaza is Located between Huntington Place and the GM Building and can be accessed from the Southside of Jefferson or from the North side of the Riverwalk off of Atwater Street.

REGISTRATION

All events are held in Huntington Place.

The Registration Desk is located in the River Atrium and will be open at the following times:

 Tuesday, April 19
 7:30 a.m. – 5:00 p.m.

 Wednesday, April 20
 7:30 a.m. – 5:00 p.m.

 Thursday, April 21
 8:00 a.m. – 5:00 p.m.

 Friday, April 22
 8:00 a.m. – 12:00 p.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, April 20 — Room 142 C 7:30 a.m. – 8:15 a.m. *Sessions 1 through 4

Thursday, April 21 — Room 142 C 7:30 a.m. – 8:15 a.m. *Sessions 5 through 15

COMMITTEE MEETING

Technical Discussion and Committee Meeting

Thursday, April 21 | 4:30 – 5:30 p.m.

Room 140 A

RECEPTIONS AND MEAL FUNCTIONS

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. The menu has been created with a variety of dietary preferences in mind, but please let staff know if you have specific restrictions.

Wednesday, April 20 and Thursday, April 21

Exhibit Hall 11:45 a.m. – 1:30 p.m.

Sponsored by: Doetsch

Networking Reception

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

Wednesday, April 20

Exhibit Hall 4:45 p.m. – 6:15 p.m.

Sponsored by: Arcadis

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

Wednesday, April 20

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

Thursday, April 21

10:00 a.m. - 10:45 a.m. and 2:30 p.m. - 3:30 p.m.

Friday, April 22 - Foyer outside session rooms

10:00 a.m. - 10:15 a.m.

MWEA Reception

MWEA will be hosting a welcome reception on **Wednesday**, **April 19 from 5:30 to 8:30 p.m.** for all attendees of the WEF Collection Systems Conference at the Waterview Loft. This convenient location is within walking distance from the WEF Collections Conference. Come join us for drinks & heavy appetizers and network with your peers!

Registration for the MWEA event is \$35/per person. Visit www.wef.org/collectionsystems for more information and to register.

CONTINUING EDUCATION

Continuing Education files will be available online at this link: https://ceu.experientevent.com/WEF225/.

You will be able to view your participation details and access your Continuing Education Credits for Technical Sessions online. Attendees will have daily access to their certificates and transcripts through an online portal for 1 year from the event date. After that time, CE documentation will be available through WEF's new CE Credit Archive site: https://www.wef.org/resources/wef-ce-credit-archive. These details will be posted on the PH page of WEF.org and emailed to event participants after the conference.

How Do I Receive Credit For this Conference?

In order to receive credit for participation in any of the training 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 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 remind each attendee where they can obtain these 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.

CONTINUING EDUCATION

Are WEF Continuing Education Credits Approved in My State?

WEF applies for approval in many states and 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. Several states typically accept WEF PDH and CEU credits as issued by WEF. For example: California (CWEA), Florida and New Jersey.

What Else Do I Need to Know?

WEF follows the International Association of Continuing Education and Training (IACET) guidelines along with state-specific regulations to achieve strict policies and procedures regarding its Continuing Education Program. 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 state licensing boards will accept CEUs for session under 3 hours in length. Some use different acronyms for 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 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).

For more information regarding WEF's Continuing Education Program, please visit www.wef.org/CollectionSystems.

WEF COLLECTION SYSTEMS MY SHOW PLANNER

New Online Planner Launching for #WEFCollections



WEF is pleased to offer the mobile-friendly online *WEF Collection Systems 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 "*Collection Systems Conference*" now from the Google Play OR App Store. All other web-enabled devices can access the app via the web: cs22.mapyourshow.com.

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 to the Collection Systems Conference 2022 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 or Summit? 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 Committee

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 Collection Systems, 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 2022 will be held October 8-12, 2022 in New Orleans, Louisiana. 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.



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www.hdrinc.com

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





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SESSIONS AT A GLANCE

Norkshop A	Session Number	Session Title	Start Time	End Time	CE Credits
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SESSIONS AT A GLANCE

Session	Session Title	Start	End	CE
Number		Time	Time	Credits
	Friday, April 22			
Session	Combined Sewer Overflows	8:30	11:15	2.5
13		a.m.	a.m.	PDHs
Session	Asset Management	8:30	11:15	2.5
14		a.m.	a.m.	PDHs
Session	Local	8:30	11:15	2.5
15		a.m.	a.m.	PDHs

PRE-CONFERENCE WORKSHOPS

(Additional fees required)

Workshop A: Asset Management – What's in it for Me?

Tuesday, April 19, 2022 8:30 a.m. – 5:00 p.m.

0.6 CEUs

8:30 a.m. Introduction

8:35 a.m. Asset Management Works

Patrick Fellrath, Charlie Card, Township of Plymouth; Scott

Parker, Kansas City Water

9:15 a.m. Learn and Engage 1: Initial Benefits Table Discussion and

Exercise

Christene Mitchell, AECOM; Walter Graf, GHD

9:45 a.m. How to Communicate Asset Management

Chris Garrett, Brown & Caldwell

10:15 a.m. Break

10:45 a.m. Learn and Engage 2: Long-Term Benefits Table

Discussion and Exercise

Christene Mitchell, AECOM; Walter Graf, GHD

11:20 a.m. Learn and Engage 3.A: Asset Management Elements

Christene Mitchell, AECOM; Walter Graf, GHD; Chris Garrett,

Brown & Caldwell

12:00 p.m. Break for Lunch

1:30 p.m. Learn and Engage 3.B: Asset Management Elements

Christene Mitchell, AECOM; Walter Graf, GHD; Chris Garrett,

Brown & Caldwell

2:55 p.m. Break

3:30 p.m. Learn and Engage 3.C: Asset Management Elements

Christene Mitchell, AECOM; Walter Graf, GHD; Chris Garrett,

Brown & Caldwell

4:40 p.m. Asset Management Success Video and Q&A

5:00 p.m. Workshop Adjourns

PRE-CONFERENCE WORKSHOPS

(Additional fees required)

Workshop B: Using Design Thinking to Uncover Insights on

Collection Systems

THIS WORKSHOP HAS BEEN CANCELED

Tuesday, April 19, 2022 1:30 p.m. - 5:00 p.m.

0.3 CEUs

Coordinator: Jenn Campbell, University of Virginia

1:30 p.m. INTRODUCTION: Introduction to facilitators, design

thinking, the problem, and their teams

2:05 p.m. INSIGHTS: Identifying and engaging users, turning user

wants and needs into insights, methods for user

engagement

3:00 p.m. Break

3:30 p.m. IDEATION: Methods for brainstorming and prototyping

4:05 p.m. IMPLEMENTATION: Methods for selecting, validating, and

iterating a solution

4:40 p.m. CONCLUSION: Group debrief, individual action plan

5:00 p.m. Workshop Adjourns

OPENING GENERAL SESSION

Opening General Session Wednesday, April 20, 2022 8:30 a.m. – 10:00 a.m.

Room 140 A/B/C 1.5 PDHs

8:30 a.m.	WEF Collection Systems Conference Chair Welcome Jennifer Welsch, The Metropolitan St. Louis Sewer District, Specialty Conference Chair Karyn Stickel, HRC, Local Planning Group Chair
8:35 a.m.	WEF Welcome John Trofatter, WEF Board of Trustees, Teledyne ISCO
8:45 a.m.	City of Detroit Welcome Palencia Mobley, Detroit Water and Sewerage Department
8:55 a.m.	The Detroit Riverfront- Past, Present, and Future Chiara C. Clayton, Detroit Riverfront Conservancy
9:55 a.m.	WEF CSC 2023 Destination Jennifer Welsch, The Metropolitan St. Louis Sewer District, Specialty Conference Chair
10:00 a.m.	Session Adjourns for Networking Break in Exhibit Hall

TECHNOLOGY SPOTLIGHT

Technology Spotlight I Wednesday, April 20, 2022 10:30 a.m. – 11:50 a.m.

10:30 AM

Exhibit Hall

The four exhibitors listed below will each be holding the same 20-minute presentation three times in a row. Participants are invited to join 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 kickoff concurrently at: 10:35 a.m., 11:00 a.m., and 11:25 a.m. in each of the five booths.

Mobile Session Introduction at entrance to exhibit hall

10:35 AM 11:00 AM 11:25 AM	4 Simultaneous Presentation A 4 Simultaneous Presentation B 4 Simultaneous Presentation C
Booth 208	Why Clean Clean Pipes? How to use Acoustic Inspection to Enable a Condition-Based Collection System Maintenance Protocol Alex Churchill, InfoSense
Booth 222	The Next Generation in Manhole and Vertical Chamber Assessment Technologies Veronica Alvarez, Jeffrey Griffiths, RedZone Robotics
Booth 429	Selecting the Proper Flow Measurement Location and Sensor for your Collection System <u>Darrell Kuta</u> , <i>Teledyne</i> ISCO
Booth 409	Mitigating Risks in Collection Systems Design Using Progressive Cavity Grinder Pumps <u>Derek Lachut</u> , Environment One Corporation

Session 01: Data Management

Wednesday, April 20, 2022 Room 140 D/E 10:45 a.m. - 11:45 a.m. 1.0 PDHs

Moderators: Kevin Vander Tuig, Wade Trim; Christy Willson, Horner &

Shifrin, Inc.

10:45 a.m. Adapting to Changing Rainfall in the SEMCOG Region

Rachael Barlock, Kelly Karll, Southeast Michigan Council of

Governments

11:15 a.m. What Factors Should I Consider Before Performing

Inspection and/or Investigations of my Sewer System?

Dianne Sumego, dms water solutions

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

FACILITY TOUR

(Additional fees required)

GLWA Conner Creek CSO Tour Wednesday, April 20, 2022 1:00 p.m. – 3:00 p.m.

1.5 GCHs

GLWA will provide an overview of the regional authority's east side collection system, including Freud and Conners Pump Stations as they relate to the Conner Creek Retention Treatment Basin (RTB). We will provide an overview of the Conner Creek RTB facility design and operations. For confined space areas, we will include a virtual tour to show attendants the portions of the facility that are below grade and generally not visible from the surface. For non-confined space areas we will provide an on-site tour walk through of the Conner Creek Combined Sewer Overflow Control Facility. The walk through will include the headworks/screening area, chemical feed and storage areas, as well as a trip out across the top of the basin. Areas covered by virtual tour will include viewing the headworks area from below grade, the chemical feed mixers, the basin interior and viewing the basin effluent gates from below grade.

Session 02: Sanitary Sewer Overflows

Wednesday, April 20, 2022 1:30 p.m. - 4:45 p.m. Room 140 D/E 2.5 PDHs

Moderators: Greg Heath, AECOM; Scott Helfrick, ADS Environmental

Services

1:30 p.m. Reinventing an Old Technology; Protecting Michigan's

Surface Waters Through Maximizing Collection System

Storage

Vincent Astorino, Steven Rozycki, Macomb County; Brian

Rubel, Tetra Tech

2:00 p.m. Two Sides of the World, One Surprising Collection System

Truth

Mark Holstad, Albuquerque Bernalillo County Water Utility Authority; Stephen Graham, Yarra Valley Water; Brandon De Flon, Albuquerque Bernalillo County Water Utility Authority;

Rebecca King, Yarra Valley Water

2:30 p.m. Design and Construction Consideration When Working in

an Urban Environment

William Landshof, Frank Lopeman, Arcadis

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

3:45 p.m. Surviving an EPA SSO Consent Decree and the Lessons

Learned Regarding Extending Pipeline Service Life, and

Reducing or Eliminating SSOs

Kent Carlson, National Clay Pipe Institute

4:15 p.m. NetSTORM Precipitation Frequency Statistics: A

Complementary Tool to NOAA's Atlas 14 and a Data

Processing Powerhouse

<u>Constantine Karos</u>, Mitchell Heineman, CDM Smith; Jason Waterbury, Metropolitan District; Duane Martin, Town of West

Hartford

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

 Session 03:
 Potpourri

 Wednesday, April 20, 2022
 Room 140 F/G

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

Moderators: Jennifer Welsch, Metropolitan St. Louis Sewer District; Alex

Churchill, InfoSense

1:30 p.m. Overcoming Operations and Maintenance Challenges in

Siphons

Veronica Alvarez, RedZone Robotics, Inc

2:00 p.m. Taking WaPUG to a New Practical Dimension: Introducing

an Innovative H&H Model Validation Tool Hazem Gheith, Arcadis; John Barton, MSDGC

2:30 p.m. Off the Curve - Using Hydraulic Modeling Software to

Identify Problems in Pump Stations and Force Mains Joseph Siwek, Fishbeck; Evans Bantios, 2Oakland County

Water Resources Commissioner's Office

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

3:45 p.m. California's Revised Sanitary Sewer Regulations - Ready,

Set, Go

Paul Causey, Causey Consulting

4:15 p.m. Preventing Sewer Overflows by Conducting Onsite Fats,

Oils, & Grease Inspections

Sam McLeod, Fats, Oils, & Grease Best Management Plan

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

Session 04: Trenchless Technology

Wednesday, April 20, 2022 Room 141 1:30 p.m. - 4:45 p.m. 2.5 PDHs

Moderators: Dianne Sumego, dms water solutions;Ogadinma Onyebuchi,

Houston Water

1:30 p.m. The Proper Order of Operations to Achieve the Maximum

Sealing Benefit from the Trenchless Rehabilitation of a

Collection System

Larry Kiest, LMK Pipe Renewal LLC

2:00 p.m. Curving Concrete Pipe: What a Relief

Kevin Wojciechowski, GPD Group; Cecilia Mazzei, City of

Cleveland

2:30 p.m. Innovative Approaches & Technologies in the DWSD

CIPMO Program

Pei Boayue, Matthew McCloskey, Detroit Water and Sewerage

Department

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

3:45 p.m. Pilot Tube Method of Guided Boring over Soil

Stabilization in the Great Lakes Basin

Steve Matheny, Logan Clay Products; Daniel DiLegge, DVM

Utilities. LLC

4:15 p.m. FRP for Structural Rehabilitation of Large Diameter

Sewers

Firat Sever, Mo Ehsani, Owen Yan, QuakeWrap, Inc.

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

Hall

 Session 05:
 Planning

 Thursday, April 21, 2022
 Room 140 D/E

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

Moderators: Eric Harold, Carollo; Greg Health, AECOM

8:30 a.m. Richmond's Story of Integrated Planning, Integrated

Permitting, and CSO Compliance

Andy Lukas, Matthew Pugh, Brown and Caldwell; Patrick Bradley, Grace LeRose, Alan Harrison, City of Richmond

9:00 a.m. Strategic CIP Prioritization Utilizing Optimization

Algorithms to Maximize Return on InvestmentJoel Wilson, Andrew Faulkner, <u>David Garcia</u>, WCS

Engineering; James Brescol, Tetra Tech

9:30 a.m. 62 Communities, 270 Square Miles — Local Sewer System

Evaluation Studies Provide a Roadmap for the Northeast Ohio Regional Sewer District and Member Communities to

Improve Sewer Systems

Kevin Vander Tuig, David Cox, Wade Trim; Lita Laven,

Northeast Ohio Regional Sewer District

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

Session 06: Green Infrastructure

Thursday, April 21, 2022 Room 140 F/G 8:30 a.m. - 10:00 a.m. 1.5 PDHs

Moderators: Ashok Perera, Atkins Global; Suibing Liu, Jacobs

8:30 a.m. Green Infrastructure Siting Using Robust Efficient

Procedure

Khaled Abdo, Hazem Gheith, Arcadis

9:00 a.m. Outcomes not Outputs, Optimizing Green and Gray

Projects to Create the Best Collection System Outcome for

Atlanta

Nicholas Anderson, Stantec; Mikita Browning, City of Atlanta Department of Watershed Management; Patrick Flynn, Stantec

9:30 a.m. Onondaga County's Resilient Combined Sewer System:

The Implementation of Green and Gray Infrastructure to Reduce CSOs and Increase System Resiliency and

Capacity

Zachary Monge, Jacobs; Shannon Harty, Onondaga County

WEP; Adam Woodburn

10:00 a.m. Session Adjourns for Networking Break

Session 07: Inflow and Infiltration

Thursday, April 21, 2022 Room 141 8:30 a.m. - 10:00 a.m. 1.5 PDHs

Moderators: Paul Costa, RJN Group; Dianne Sumego, dms water solutions

8:30 a.m. Bridging the Gap: Bringing Data Transparency in a

Citywide Wastewater System Condition Assessment

Program for I/I Mitigation

Karen Rico, Daniel Jackson, RJN Group

9:00 a.m. Successful I&I Reduction using Design-Build - Developing

and Implementing the River Valley Highlands Design-Build

Sewer Rehabilitation Project

James Shelton, Arcadis

9:30 a.m. Implementing Advanced Technologies and Asset

Management to Help Prioritize and Rehabilitate Critical

Pressurized Pipeline Infrastructure Mark Wade, BlueWater Solutions Group

10:00 a.m. Session Adjourns for Networking Break

TECHNOLOGY SPOTLIGHT

Technology Spotlight II Thursday, April 21, 2022 10:30 a.m. – 11:50 a.m. Exhibit Hall

10:30 AM

The four exhibitors listed below will each be holding the same 20-minute presentation three times in a row. Participants are invited to join 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. As these sessions are about emerging topics and technologies, the presentations may have a sales focus. Choose the top three you would like to attend. Each presentation happens at the exhibitor's booth. Presentations kickoff concurrently at: 10:35 a.m., 11:00 a.m., and 11:25 a.m. in each of the five booths.

Mobile Session Introduction at entrance to exhibit hall

10:35 AM 11:00 AM 11:25 AM	4 Simultaneous Presentation B 4 Simultaneous Presentation B 4 Simultaneous Presentation C
Booth 429	Sampling for Wastewater Based Epidemiology. Selection of Type of Sampler and Sampling Methodology Based on Purpose and Location Kaushal Trivedi, Teledyne ISCO
Booth 223	Killing Two Birds with One Stone - The Role of Magnesium Hydroxide in Odor Control John Van Wingerden, Inland Environmental Resources
Booth 411	Eliminating FOG and Odor in the Collection System Jim Dartez, Reliant Water Technologies
Booth 115	How a Pump Modification Bridged a Gap Between Costly FOG/Scum Problems in Lift Stations Arthur Savage, Landia, Inc.

Session 08: Pump Stations and Force Mains

Thursday, April 21, 2022 Room 140 D/E 10:45 a.m. - 11:45 a.m. 1.0 PDHs

Moderators: Bill McMillin, Jacobs; Kevin Vander Tuig, Wade Trim

10:45 a.m. MSDGC's Critical Assets Planning- The Pleasant Run

Planning Challenge

Nick Jones, MSDGC; Dinesh Kumar Palaniswamy, Deborah

Schafer, Jacobs

11:15 a.m. Not So Quiet On The Western Trunk — HRSD Sets The

Standard For Connecting To Concrete Pressure Pipe

William Gibson, AECOM; Phillip Hubbard, HRSD; Virginia Opp,

AECOM

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

Session 09: Seeing Collection Systems Through A DE&I Lens

Thursday, April 21, 2022 Room 140 F/G 10:45 a.m. - 11:45 a.m. 1.0 PDHs

Moderator: Kraig Moodie, RJN Group

10:45 a.m. A Case Study on Water Equity: the Alabama Black Belt

Anniestacia Miskel, Arcadis

11:15 a.m. Applying Diversity, Equity, and Inclusion to CMOM

Projects

Tanya Miro, Kimley-Horn

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

FACILITY TOUR

(Additional fees required)

South Huron Valley Utility Authority Treatment Plant and Collections System Tour Thursday, April 21, 2022

1:30 p.m. – 4:00 p.m.

2.5 GCHs

The Treatment Plant provides secondary treatment for 7 communities with a service population of approximately 90,000. The plant features cost savings and innovative upgrades including fine-air diffusers, a new class "A" sludge production facility that is the first in Michigan, a plant water system that saves on potable water usage for pump cooling, stacked tray grit removal system, and submerged final effluent weirs. The plant also features efficient LED lighting throughout and a 6.6 Million Gallon Equalization Basin. The Trenton Arm Pump Station provides 33% of the plant's daily flow and is a focal point during high flow events, especially during the pump upgrade period and the sewer relining project. A water well was installed at the pump station to save on potable water usage at the station and provide uninterrupted, reliable service even during water main breaks.

Session 10: Research and Innovation

Thursday, April 21, 2022 Room 140 D/E 1:30 p.m. - 4:30 p.m. 2.0 PDHs

Moderators: Ronald Thomann, TREKK; Eric Sullivan, SewerAl

1:30 p.m. Rethinking Buffalo Sewer's CSO Long Term Control Plan

Rosaleen Nogle, Buffalo Sewer Authority

2:00 p.m. Transforming Design Tools into Predictive Operational

Tools through Artificial Intelligence and Machine Learning

(AI/ML)

Derek Sutton, Christina Bowers, Citizen's Energy Group;

Christopher Ranck, Black and Veatch

2:30 p.m. Networking Break in Exhibit Hall

3:30 p.m. Lessons Learned from Fan Testing in Multiple Large

Diameter Sewer Systems in Austin, Texas

Mark Perkins, Aryana Davin, Harrison Duban, Perkins

Soon, Thomas Van Winkle, Kevin Koeller, Austin Water

Engineering Consultants; Brian Huang, V&A Engineering; Soo

4:00 p.m. Wastewater Sampling Methods for Water Based

Epidemiology

Kaushal Trivedi, Teledyne ISCO

4:30 p.m. Session Adjourns

Session 11: Modeling Thursday, April 21, 2022 1:30 p.m. - 4:30 p.m.

Room 140 F/G 2.0 PDHs

Moderators: David Garcia, WCS Engineering; Mike Jankowski, Drummond

Carpenter

1:30 p.m. Using a Digital Twin to Control Sewer Overflows - Sweden

Dennis Jursic, Douglas Lumley, DHI Group; Ann Quenzer,

Murraysmith

2:00 p.m. Intercepting Maine's Largest Combined Sewer Overflow

Volumes with 1-D and 3-D Dynamic Hydraulic Modeling Kevin Trainor, Jason Kreil, Woodard & Curran; Gregory Heath,

AECOM; Bradley Roland, City of Portland Public Works

2:30 p.m. Networking Break in Exhibit Hall

3:30 p.m. Modeling a Complex Manifolded Pump Station Sewer

System with Parallel Pressure Pipes and Variable Vacuum

and Pressurized Conditions

<u>Pradeep Sudini</u>, Arcadis; William Cassidy, Dickie Fernandez, Orange County Sanitation District; Harmik Aghanian, Xintong

Qiu, Arcadis

4:00 p.m. Forensic Modeling: How Building a Detailed Model

Revealed Clues to Detroit's Sewer System

<u>Erika Campbell</u>, Brian Dara, Detroit Water and Sewerage Department; Andres Gomez, Sharon Tsay, Dan Rosenberg,

Aditi Shetti. AECOM

4:30 p.m. Session Adjourns

Session 12: Design and Construction

Thursday, April 21, 2022 Room 141 1:30 p.m. - 4:30 p.m. 2.0 PDHs

Moderators: Christy Willson, Horner & Shifrin, Inc.; Jennifer Welsch,

Metropolitan St. Louis Sewer District

1:30 p.m. The Venice Dual Force Main: Ensuring Resiliency through

Redundancy in a Historically Large Scale Microtunneling

Project

Eduardo Perez, Gevork Mkrtchyan, LA Sanitation

2:00 p.m. Planning, Design, and Construction of the Gravois Trunk

Sanitary Storage Facility in St. Louis, Missouri

John Weiland, Wade Trim, Inc.; Curt Kimmel, Burns &

McDonnell; Steven Roberts, Metropolitan St. Louis Sewer

District

2:30 p.m. Networking Break in Exhibit Hall

3:30 p.m. Detroit River Interceptor Flow Control Facilities

Construction

Mini Panicker, Great Lakes Water Authority; Fritz Klingler, FK

Engineering

4:00 p.m. Procurement of Missouri's Longest Tunnel Project and the

Largest Clean Water SRF Project in State History Everett Litton, <u>Richard Wischmann</u>, WSP USA, Inc.; Jerry

Jung, Metropolitan St. Louis Sewer District

4:30 p.m. Session Adjourns

Session 13: Combined Sewer Overflows

Friday, April 22, 2022 Room 140 D/E 8:30 a.m. - 11:15 a.m. 2.5 PDHs

Moderators: Bill McMillin, Jacobs; Jennifer Welsch, Metropolitan St. Louis

Sewer District

8:30 a.m. The Great Lakes Water Authority's Integrated Collection

System Management Program: High Tech to High Touch John Norton, Sherri Gee, Daniel Gold, Great Lakes Water Authority; Andrea Busch; Branko Kerkez; Curt Wolf, University

of Michigan; Dax Blake, EMNet Inc

9:00 a.m. Innovative Solutions for Combined Sewer Overflow

Control in Muncie, Indiana Robert Page, HNTB Corporation

9:30 a.m. Omaha's Unique Approach to Updating their CSO Long

Term Control Plan

Patricia Nelson, Thomas Heinemann, Jacobs; Adam Wilmes,

City of Omaha Public Works

10:00 a.m. Networking Break

10:15 a.m. Post-Construction Assessment of the North Dorchester

Bay Tunnel System

Gregory Heath, Daniel Braz, AECOM; Jeremy Hall,

Massachusetts Water Resources Authority

10:45 a.m. Distributed Optical Measurements Enable Smart CSO

Management

Samuel Shelley, Paul Dickenson, Louise Keogh, NURON LIMITED; Simon Tait, Kirill Horoshenkov, University of

Sheffield

11:15 a.m. Conference Adjourns

Session 14: Asset Management

Friday, April 22, 2022 Room 140 F/G 8:30 a.m. - 11:15 a.m. 2.5 PDHs

Moderator: Jennifer Steffens, Suez; Laura Gray, Lamp Rynearson

8:30 a.m. Don't Give Up When Things Get Tough to Perform Your

Critical Force Main InspectionsCeline Hyer, Arcadis; Harrison Steed

9:00 a.m. Phased Development and Implementation of a Force Main

Condition Assessment and Management Program <u>Vincent Genco</u>, HDR; Jennifer Morales, City of Omaha,

Nebraska; Derek Gardels, HDR

9:30 a.m. Stormwater Risk Assessment in Portland, OR

Arnold Engelmann, DHI Water and Environment; Heidi Berg,

Matt Burlin, Bureau of Environmental Services

10:00 a.m. Networking Break

10:15 a.m. Full Scale Trial of a Low-Hazard Buffered Iron Product

(SulFeLox®) to Control Hydrogen Sulfide Odors at The

City of Portland, OR

Brenda Sherwood, City of Portland; Khalil Kairouz, Carollo Engineers; Lam Nguyen, Jeff Zucek, John Walton, Michael

Fagan, USP Technologies

10:45 a.m. Targeted Inspections Used to Assess Force Main

Condition After Failure

Allison Zeoli, Arcadis; Bryce Annino, Corrosion Probe, Inc.

11:15 a.m. Conference Adjourns

Session 15: Local Friday, April 22, 2022 **Room 141** 8:30 a.m. - 11:15 a.m. **2.5 PDHs**

Moderators: Karyn Stickel, HRC; Maria Sedki, FTCH

8:30 a.m. Flood Control and Water Quality: Balancing Gray and

Green Infrastructure in Detroit

Humaira Jahangiri, Gregory Kacvinsky, OHM Advisors; Donald Carpenter, Drummond Carpenter PLLC; Palencia Mobley, Lisa Wallick, Sarah Stoolmiller, Detroit Water and Sewerage

Department

9:00 a.m. Innovative Inspection of Pump Station No. 1 Wet Well

David White, Wade Trim; Dan Alford, Great Lakes Water

Authority

Aging Interceptor Systems: A Comprehensive Asset 9:30 a.m.

Management Approach to Address SSOs

Nancy Russell, Gregory Kacvinsky, OHM Advisors

10:00 a.m. Networking Break

10:15 a.m. 60 Years of Progress in Combined Sewer Overflow Control

in Michigan

Dan Beauchamp, EGLE; Sally Duffy, Hubbell Roth and Clark

Inc

10:45 a.m. Milk River CSO Facility Modernization

Carol Hufnagel, Roger Kaliman, Tetra Tech; Pete Trombley,

Southeast Macomb Sanitary District

11:15 a.m. **Conference Adjourns**

EXHIBITION INFORMATION

EXHIBITION SCHEDULE

Wednesday, April 20

10:00 am - 6:15 pm	Exhibit Hall Open
10:00 am – 10:45 am	Networking Break
10:30 am – 11:50 am	Technology Spotlight I
11:45 am - 1:30 pm	Networking Luncheon
3:00 pm – 3:45 pm	Networking Break
4:45 pm – 6:15 pm	Networking Reception

Thursday, April 21

10:00 am - 3:30 pm	Exhibit Hall Open
10:00 am – 10:45 am	Networking Break
10:30 am – 11:50 am	Technology Spotlight I
11:45 am - 1:30 pm	Networking Luncheon
2:30 pm - 3:30 pm	Networking Break

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.

As of March 30, 2022

For Company Descriptions, view Exhibitors in the mobile app.

ADS Environmental Services	Booth 4	.21
Airvac Vacuum Sewer Technology	Booth 3	24
Anua	Booth 2	:25
Centralsquare Technologies	Booth 2	:16
Compliance EnviroSystems LLC	Booth 2	:11
Denso North America	Booth 2	:10

As of March 30, 2022

For Company Descriptions, view Exhibitors in the mobile app.

Doetsch	
ENVIRONMENTAL SERVICES Doetsch Environmental Services, Inc	oth 320
https://doetschenv.com	
Phone: 586-755-2090	
21221 Mullin Ave	
Warren, MI 48089	
Duke's Root Control, Inc Boo	oth 109
www.dukes.com	
Phone: 888-655-4085	
400 Airport Rd, Ste E	
Elgin, IL 60123	
Duperon Corporation Boo	oth 322
www.duperon.com	
Phone: 989-401-7154	
1200 Leon Scott Ct	
Saginaw, MI 48601	
DVM Utilities IncBoo	oth 117
www.dvmutilities.com	
Phone: 810-560-3984	
6045 Sims Dr, Ste 2	
Sterling Heights, MI 48313	
Eastech Flow Controls, Inc Boo	oth 112
www.smartwastewater.com	
Phone: 918-664-1212	
4250 S 76th E Ave	
Tulsa, OK 74145	

As of March 30, 2022

28529 Goddard, Ste 106 Romulus, MI 48174

For Company Descriptions, view Exhibitors in the mobile app.

Eganix, Inc	Booth 123
www.eganix.com	
Phone: 248-880-5046	
1091 Centre Rd, Ste 120	
Auburn Hills, MI 48326	
Environment One Corporation	Booth 409
www.eone.com	
Phone: 518-579-3033	
2773 Balltown Rd	
Niskayuna, NY 12309	
FOG BMP	Booth 228
www.fogbmp.com	
Phone: 614-519-1769	
PO BOX 461	
Carroll, OH 43112	
Grande Water Management Syste	ems Booth 314
https://grandeinc.com	
Phone: 450-315-1115	
3950 Montee Masson	
Laval, QC H7B 1C4	
Canada	
Granite Inliner LLC	Booth 121
www.inliner.com	
Phone: 734-955-2508	

As of March 30, 2022

For Company Descriptions, view Exhibitors in the mobile app.



Charlotte, NC 28273

Inland Environmental Resources Booth 223 https://ierwater.com

Phone: 509-439-9626 1717 S Rustle St Spokane, WA 99224

Landia, Inc..... Booth 115

www.landiainc.com Phone: 919-592-9955 111 Triangle Trade Dr Cary, NC 27513

Logan Clay Products, LLC Booth 229

www.loganclay.com Phone: 248-977-8652 6008 Petros Dr

West Bloomfield Township, MI 48324

Logiball Inc. Booth 328

www.logiball.com Phone: 418-656-9767 440 Papin St Quebec, QC G1P 3T9

Canada

As of March 30, 2022

Warrendale, PA 15086

For Company Descriptions, view Exhibitors in the mobile app.

h 129
h 221
h 310
h 217
h 108
11 100
h 222
<i>LLL</i>

As of March 30, 2022

For Company Descriptions, view Exhibitors in the mobile app.

Reliant Water Technologies	Booth 411
www.reliantwater.us.com	
Phone: 504-444-2200	
141 Robert . Lee Blvd, #284	
New Orleans, LA 70124	
Rexa, Inc	Booth 316
www.rexa.com	
Phone: 508-584-1199	
4 Manley St	
West Bridgewater, MA 2379	
RJN Group Inc	Booth 425
www.rjn.com	
Phone: 630-682-4700 x1365	
200 W Front St	
Wheaton, IL 60187	
SewerAl	Booth 128
https://www.sewerai.com	
Phone: 855-952-2200	
2815 Mitchell Dr, Ste 215	
Walnut Creek, CA 94598	
SmartCover Systems	Booth 423
https://smartcoversystems.com	
Phone: 908-507-0915	
2110 Enterprise St	
Escondido, CA 92029	
Taplin Group, LLC	Booth 120
www.TaplinGroup.com	
Phone: 269-375-9595	
5140 W Michigan Ave	
Kalamazoo, MI 49006	

As of March 30, 2022

For Company Descriptions, view Exhibitors in the mobile app.



Teledyne Isco...... Booth 429

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

Phone: 402-465-2046 4700 Superior St Lincoln, NE 68504

Trimble Utilities Booth 111

https://utilities.trimble.com Phone: 585-667-2285 295 Woodcliff Dr Fairport, NY 14450

Trumbull MFG...... Booth 308

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

Uni-Bell PVC Pipe Association Booth 110

www.uni-bell.org

Phone: 972-243-3902

201 East John Carpenter Freeway, Ste 750

Irving, TX 75062



Vaughan Company, Inc. Booth 417

www.chopperpumps.com Phone: 360-249-4042 x227 364 Monte-Elma Rd Montesano, WA 98563

As of March 30, 2022

For Company Descriptions, view Exhibitors in the mobile app.

Vogelsang USA	Booth 116
www.vogelsangusa.com	
Phone: 330-296-3820	
PO Box 751, 7966 St Rt 44	
Ravenna, OH 44266	
WinCan, LLC	Booth 209
www.wincan.com/en/home	
Phone: 412-335-8271	

Phone: 412-335-8271 300 Cedar Ridge Dr, Ste 308 Pittsburgh, PA 15205

EXHIBITION FLOOR PLAN

LUNCHEON

128 SewerAl Corporation	228 FOG BMP 129 M.E. Simpson	328 Logiball Inc 229 Logan Clay	Teledyne Isco
126			
124	•	324 Airvac Sewer Tech	425 RJN Grr Inc
122	RedZone 220 123 Eganix, Inc	322 Duperor Corp Carp 223	423 SmartCove
120 Taplin Grp LLC	RedZone Robotics 220 123 121 Eganix, Granite Inc. Inliner	322 320 Duperon Environal Corp Sylicolar Corp Sylic	425 423 421 RJN Grp SmanCover ADS LLC
Vogelsang 114	Centralssquare Tech 216 117 115 DVM Landia, Utilities Inc	316 314 Rexa, Rexa, Management 20' Orenco Sys	Vaughan 415
112 Eastech Flow Controls			
	Denso North 210 111 Trimble Utilities	310 OBIC LLC Completes Endestgliebens	411 Reliant Water Tech
110 108 Uni-Bell Wastewater PVC Pipe Tech LLC	InfoSense 208 109 Duke's Root Control	310 308 OBIC Trumbull LLC MFG 211 209 Companies Wincan, LLC	409 Environment One Corp

ENTRANCE

Khaled Abdo

Arcadis Speaker Session 06

Veronica Alvarez RedZone Robotics.

Speaker Session 03

Nicholas Anderson

Stantec Consulting Inc Speaker Session 06

Bryce Annino

Corrosion Probe. Inc. Speaker Session 14

Rachael Barlock

SEMCOG Speaker Session 01

Dan Beauchamp

EGLE Speaker Session 15

Alex Beck

Johnson County Wastewater Speaker Session 03

Pei Boayue

Detroit Water and Sewerage Dept Speaker Session 04

Erika Campbell

Detroit Water and Sewerage Dept Speaker Session 11

Jenn Campbell

University of Virginia Coordinator Workshop B

Charlie Card

Township of Plymouth Speaker Workshop

Kent Carlson

National Clay Pipe Institute Speaker Session 02

Paul Causey

Causey Consulting Speaker Session 03

Alex Churchill

InfoSense Moderator Session 03

Chiara Clayton

Detroit Riverfront Conservancy Speaker OGS

Paul Costa

RJN Group Moderator Session 07

Jim Dartez

Reliant Water Technologies Speaker Technology Spotlight II

Aryana Davin

Mead & Hunt Speaker Session 10

Arnold Engelmann

DHI Water and Environment Speaker Session 14

Patrick Fellrath

Township of Plymouth Speaker Workshop

David Garcia

WCS Engineering Speaker Session 05. Moderator Session

Derek Gardels

HDR Speaker Session 14

Chris Garrett

Brown & Caldwell Speaker Workshop Α

Vincent Genco

HDR Speaker Session 14

Hazem Gheith

Arcadis Speaker ALT

William Gibson

AECOM Speaker Session 08

Andres Gomez

AECOM Speaker Session 11

Walter Graf

GHD Speaker Workshop

Jeffrey Griffiths

RedZone Robotics Speaker Technology Spotlight I

Eric Harold

Carollo Moderator Session 05

Gregory Heath

AECOM Moderator Session 02, Session 05; Speaker Session 13

Scott Helfrick

ADS Environmental Services Moderator Session 02

Mark Holstad

Albuquerque Bernalillo County Water Utility Authority Speaker Session 02

Brian Huang

V&A Engineering
Speaker Session 10

Carol Hufnagel

Tetra Tech Speaker Session 15

Celine Hyer

Arcadis
Speaker Session 14

Mike Jankowski

Drummond
Carpenter
Moderator Session
11

Constantine Karos

CDM Smith Speaker Session 02

Larry Kiest

LMK Technologies Speaker Session 04

Darrell Kuta

Teledyne ISCO Speaker Technology Spotlight I

William Landshof

Arcadis Speaker Session 02

Suibing Liu

Jacobs Moderator Session 06

Andy Lukas

Brown and Caldwell Speaker Session 05

Douglas Lumley

DHI Sweden AB Speaker Session 11

Steve Matheny

Logan Clay Pipe Institute Speaker Session 04

Cecilia Mazzei

City of Cleveland Speaker Session 04

Matthew McCloskey

Detroit Water and Sewerage Dept Speaker Session 04

Keith McHale

Environment One Corporation Speaker Technology Spotlight I

Sam McLeod

Fats, Oils, & Grease Best Management Plan Speaker Session 03

Bill McMillin

Jacobs Moderator Session 08, Session 13

Christene Mitchell

AECOM Coordinator Workshop A

Gevork Mkrtchyan

LA Sanitation
Speaker Session 12

Palencia Mobley

Detroit Water and Sewerage Dept Speaker OGS, Session 15

Zachary Monge

Jacobs
Speaker Session 06

Kraig Moodie

RJN Group Moderator Session 09

Jennifer Morales

City of Omaha, Nebraska Speaker Session 14

Patricia Nelson

Jacobs Speaker Session 13

Lam Nguyen

USP Technologies
Speaker Session 14

Rosaleen Nogle

Buffalo Sewer Authority Speaker Session 10

John Norton

Great Lakes Water Authority Speaker Session 13

Robert Page

HNTB Corporation Speaker Session 13

Dinesh Kumar Palaniswamy

Jacobs Speaker Session 08

Mini Panicker

Great Lakes Water Speaker Session 12

Scott Parker

Kansas City Water Speaker Workshop A

Mark Pasco

Detroit Riverfront Conservancy Speaker OGS

Ashok Perera

Atkins Global Moderator Session 06

Eduardo Perez

LA Sanitation Speaker Session 12

Mark Perkins

Mead & Hunt Speaker Session 10

Christopher Ranck

Black & Veatch
Speaker Session 10

Karen Rico

RJN Group Inc Speaker Session 07

Brian Rubel

Tetra Tech Speaker Session 02

Nancy Russell

OHM Advisors Speaker Session 15

Diane Ryu

InfoSense Speaker Technology Spotlight I

Arthur Savage

Landia, Inc. Speaker Technology Spotlight II

David Servidio

Mott MacDonald Moderator Session 04. Session 13

Maria Sedki

FTCH Moderator Session 15

Firat Sever

QuakeWrap Inc Speaker Session 04

Samuel Shelley

NURON LIMITED Speaker Session 13

James Shelton

Arcadis Speaker Session 07

Joseph Siwek

Fishbeck Speaker Session 03

Jennifer Steffens

SUEZ Moderator Session 14

Karyn Stickel

HRC Moderator Session 15

Pradeep Sudini

Arcadis
Speaker Session 11

Eric Sullivan

SewerAl Moderator Session 10

Dianne Sumego

dms water solutions Speaker Session 01; Moderator Session 04. Session 07

Ronald Thomann

TREKK Moderator Session 10

Kevin Trainor

Woodard & Curran Inc Speaker Session 11

Kaushal Trivedi

Teledyne ISCO Speaker Session 10, Technology Spotlight II

Kevin Vander Tuig

Wade Trim Moderator Session 01, Session 08; Speaker Session 05

John Van Wingerden

Inland

Environmental Resources

Speaker Technology Spotlight II

Mark Wade

BlueWater Solutions Group Speaker Session 07

John Weiland

Camp Dresser & McKee Inc Speaker Session 12

Jennifer Welsch

Metropolitan St. Louis Sewer District Moderator Session 03, Session 12

David White

Wade Trim

Speaker Session 15

Christy Willson

Horner & Shifrin, Inc. Moderator Session 01, Session 12

Richard Wischmann

WSP

Speaker Session 12

Kevin Wojciechowski

GPD Group

Speaker Session 04

Allison Zeoli

Arcadis

Speaker Session 14

CONFERENCE SCHEDULE-AT-A-GLANCE

Tuesday, April 19

7:30 a.m. –	5:00 p.m.	Registration
8:30 a.m. –	5:00 p.m.	Workshop A: Asset Management –
		What's in it for me?
1:30 p.m. –	5:00 p.m.	Workshop B: Using Design Thinking to
		Uncover Insights on Collection Systems

Wednesday, April 20

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
1:00 p.m. – 3:00 p.m.	GLWA Conner Creek CSO Tour
1:30 p.m. – 4:45 p.m.	Technical Sessions 2, 3, 4
4:45 p.m. – 6:15 p.m.	Networking Reception

Thursday, April 21

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
10:30 a.m. –.11:50 a.m.	Technology Spotlight II
10:45 a.m. – 11:45 a.m.	Technical Sessions 8, 9
11:45 a.m. – 1:30 p.m.	Networking Luncheon
1:30 p.m. – 4:00 p.m.	South Huron Valley Utility Authority Tour
1:30 p.m. – 4:30 p.m.	Technical Sessions 10, 11, 12

Friday, April 22

8:00 a.m. – 12:00 p.m.	Registration
8:30 a.m. – 11:15 a.m.	Technical Sessions 13, 14, 15
11:15 a.m.	Conference Adjourns

UPCOMING WEF EDUCATION & TRAINING EVENTS

Residuals and Biosolids Conference

May 24-27, 2022 Columbus, Ohio www.wef.org/residualsbiosolids

Innovations in Process Engineering Conference

June 20-23, 2022 Miami, Florida www.wef.org/processengineering

Stormwater Summit

June 27-29, 2022 Minneapolis, Minnesota www.wef.org/stormwatersummit

WEFTEC

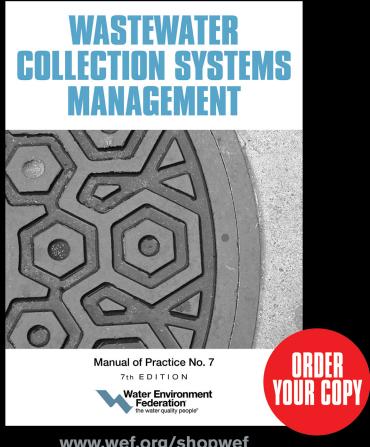
October 8-12, 2022 New Orleans, Louisiana www.weftec.org

NOTES

NOTES

NEW INSIGHTS ON COLLECTION SYSTEMS MANAGEMENT

Get the guidance, strategies, and ideas you need to become proficient in the skills required to operate and maintain a collection system effectively. Now in its 7th Edition, MOP 7 features new chapters, including "Collection System Assessment and Capital Improvement Planning" and "Emergency Preparedness and Security."



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