

WATER ENVIRONMENT FEDERATION 2019

# COLLECTION SYSTEMS CONFERENCE

Race to Indy – 25 Years of  
Wet Weather Control

June 4–7 | Indianapolis, IN

## CONFERENCE PROGRAM



This conference is held by the Water Environment Federation in cooperation with the Indiana Water Environment Association and The Water Research Foundation.



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**WEF**  
**Collection Systems Conference 2019**  
**Race to Indy – 25 Years of Wet Weather Control**

June 4-7, 2019

Indiana Convention Center  
Indianapolis, Indiana, USA



This conference is held by the Water Environment Federation in cooperation with the Indiana Water Environment Association and The Water Research Foundation.

June 4, 2019

Dear Conference Participant,

The Water Environment Federation's Collection System Committee, in cooperation with the Indiana Water Environment Association (IWEA) and The Water Research Foundation is pleased to bring you the 2019 Collection Systems Conference: Race to Indy – 25 Years of Wet Weather Control. This comprehensive program highlights challenges and innovative solutions and technologies that are utilized across the nation to proactively maintain and improve the efficiency of collection system infrastructure. Throughout the conference, local projects in Indianapolis and the surrounding communities will also be highlighted to show work completed in the last 25 years since Indianapolis last hosted the conference.

As hosts of the conference, we want to welcome you to the "Circle City" Indianapolis. At the Collection System 2019 "Race to Indy" you will have the experience to visit this fabulous city located in the center of the great State of Indiana. You will hear unique perspectives on collection system topics all while enjoying a great environment to network and discuss the latest hot topics with your peers. Summer will almost be here on June 4-7 as we welcome conference attendees from around the country.

**When you arrive:** The greatest spectacle in racing, the 103<sup>rd</sup> running of the Indianapolis 500 occurred on May 26<sup>th</sup>, so to continue the excitement, take a trip to the track and museum or play a round of golf at the Brickyard. There is a lot to enjoy downtown within walking distance from the hotel, including the NCAA Hall of Champions where our social event will be June 4<sup>th</sup>. The Eiteljorg Museum of American Indians and Western Art, the Indianapolis Zoo, and Botanical Gardens are all great local attractions. The Children's Museum is nationally known for their indoor and outdoor experiences. Lucas Oil Stadium, home of the Colts, and Bankers Life Fieldhouse, home of the Pacers, are also remarkable venues. There are many great eatery establishments and breweries, but an inside note "watch out for the hot cocktail sauce at St. Elmo's Steak House". The canal walk located just northeast of the hotel is a great area to walk, jog or even rent pedal boats. Come early and/or stay late. Indianapolis has lots to offer for all family members. If you like horse racing and casinos it is a short 20 miles to Indiana Grand located in Shelbyville.

**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 – *Best Sewer Rehabilitation Practices for Mitigating I/I: Integrated Approaches, Innovative Technologies and Interactive Solutions*, and *Infiltration and Inflow Modeling for Collection System Utilities*. 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 the Mayor and Citizens Energy Group and will highlight the famous Indianapolis Motor Speedway. 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, Mobile Sessions, and Exhibition:** The technical program was developed to provide presentations that cover a wide range of topics, including Tunnels, Trenchless Technology, Combined and Sanitary Sewer Overflows, System Analysis, project Delivery, Condition Assessment, Asset Management and Inflow and Infiltration. In addition, two sessions will also highlight local projects in Indianapolis and the surrounding communities. Two 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.

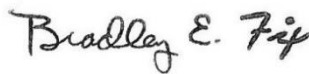
**Facility Tours:** We encourage you to take part in one or both of our local tours. The first goes to the Belmont Advanced Wastewater Treatment Plant and Juan Soloman Park Lift Station. The second is a site visit to the DigIndy Deep Rock Tunnel where attendees descend 240 feet via personnel cage to the bottom of the tunnel.

We look forward to sharing this experience with you and look forward to meeting you over the next several days. Thank you for attending the conference and enjoy your time in Indianapolis.

Sincerely,



Christy Willson  
Horner & Shifrin, Inc  
Specialty Conference  
Committee Chair



Bradley Fix  
Shelbyville Water Resource  
Recovery Facility  
Local Planning Group Chair

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## COLLECTION SYSTEMS CONFERENCE COMMITTEE



Christiana Willson  
*Horner & Shifrin, Inc*  
*Specialty Conference*  
*Committee Chair*



Bradley Fix  
*Shelbyville Water Resource*  
*Recovery Facility*  
*Local Planning Group Chair*

### COLLECTION SYSTEMS SPECIALTY CONFERENCE COMMITTEE & LOCAL PLANNING GROUP

Tony Akles  
*Strand Associates*

Derek Davidson  
*F.A. Wilhelm*  
*Construction*

Eric Haenlein  
*Layne Inliner*

Scott Aurit  
*HDR*

Teddy Deahl  
*Bowen Engineering*

Olivia Hawbaker  
*Citizens Energy*  
*Group*

Tim Back  
*Back Municipal*  
*Consulting*

Kylee Dycus  
*Indiana WEA*

Greg Heath  
*AECOM*

Joe Bartos  
*Wessler Engineering*

Ethan Edwards  
*Cowan Group*

Scott Helfrick  
*ADS Environmental*  
*Services*

Phil Brenner  
*Brenner Solutions*

Jay Gibson  
*CHA*

Jim Hewitt  
*City of Akron*

Eric Carleton  
*National Precast*  
*Concrete*  
*Association*

Walter Graff  
*Water Research*  
*Foundation*

Keith Hicks  
*Gripp Incorporated*

Carl Chan  
*Stantec*

Jeffery Griffiths  
*Hydromax USA*

Luis Leon  
*HDR*

Diane  
Grossenheider  
*HDR*

Jane McLamarrah  
*Stantec*

<b>COLLECTION SYSTEMS CONFERENCE COMMITTEE</b>
--

**COLLECTION SYSTEMS SPECIALTY CONFERENCE COMMITTEE & LOCAL  
PLANNING GROUP CONTINUED**

Gary Moore  
*Washington  
University*

Dan Murray  
*US EPA*

Joe Nagy  
*Citizens Energy  
Group*

Jeremy Nitka  
*Arcadis*

Cheryl Paulin  
*ADS Environmental  
Services*

Karen Saavedra  
*American  
Structurepoint*

Cheryllynn Schilling  
*Powers Engineering*

Dave Servidio  
*Mott MacDonald*

Jim Shelton  
*ARCADIS*

TJ Short  
*City of Ft. Wayne*

Matt Spidel  
*Butler, Fairman,  
Seifert*

Jimmy Stewart  
*Pure Technologies*

Karyn Stickel  
*Hubbell, Roth &  
Clark*

Joe Strauch  
*Gannett Flemming*

Dianne Sumego  
*DMS Water  
Solutions, LLC*

Chad Thompson  
*City of Madison*

Srini Vallabhaneni  
*Stantec*

Kevin Waldron  
*Olsson Associates*

Emily Wehmeyer  
*Donohue Associates*

Jennifer Welsch  
*Metropolitan St.  
Louis Sewer District*

Tony Wood  
*City of Osgood*



## REGISTRATION

**All events are held in the Indiana Convention Center.**

The Registration Desk is located in Lobby D and will be open at the following times:

**Hours:**

Tuesday, June 4	7:30 AM – 5:00 PM
Wednesday, June 5	7:30 AM – 5:00 PM
Thursday, June 6	8:00 AM – 5:00 PM
Friday, June 7	8:00 AM – 12:00 PM

## 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. Please add them to your calendar via the new App. The Speaker Briefing and room schedule is as follows:

Wednesday, June 5 — Room: 105/106	7:30 AM – 8:15 AM
*Sessions 1 through 4	

Thursday, June 6 — Room: 105/106	7:30 AM – 8:15 AM
*Sessions 5 through 13	

## TECHNICAL DISCUSSION & COMMITTEE MEETING

**Collection Systems Technical Discussion & Committee Meeting  
Room 103/104**

**Thursday, June 6  
3:45 PM – 4:45 PM**

All attendees are invited and encouraged to participate in this meeting, which will provide information about WEF's Collection Systems Committee (CSC) and how to get involved. The meeting is intended to be an overview of how the WEF CSC functions and will also include a discussion of technical issues important to those in our industry.

## RECEPTION AND MEAL FUNCTIONS

### **Networking Reception**

### **Exhibit Hall, Hall D**

Come grab a beer while they last! Join us in the exhibit area to mingle with your fellow attendees while you view the exhibits, renew acquaintances, and make new contacts. Light hors d'oeuvres and refreshments will be served. Beer will be available first come, first served with a cash bar to follow. Don't miss out!

### **Wednesday, June 5**

4:45 PM – 6:15 PM

*Sponsored by ARCADIS*

### **Luncheons**

### **Exhibit Hall, Hall D**

Lunch will be provided for all full conference, daily registrants, exhibitors, and students. Please advise staff as soon as possible if you have any special dietary requirements. The luncheons will be held in the Exhibit Hall in Hall D.

### **Wednesday, June 5**

11:45 AM – 1:30 PM

### **Thursday, June 6**

11:45 AM – 1:30 PM

### **Networking Breaks**

The Networking Breaks will be held:

### **Tuesday, June 4**

Meeting Room Foyer Area

10:00 AM – 10:30 AM and 3:00 PM – 3:30 PM

### **Wednesday, June 5**

Exhibit Hall, Hall D

10:00 AM – 10:45 AM and 3:00 PM – 3:45 PM

### **Thursday, June 6**

Exhibit Hall, Hall D

10:00 AM – 10:45 AM and 3:00 PM – 3:45 PM

### **Friday, June 7**

Meeting Room Foyer Area

10:00 AM – 10:15 AM

## MOBILE APP

**This year, we have a NEW Mobile App for #Collections19**



WEF is pleased to offer the **WEF Events Connect Mobile App** which gives you access to all current and future WEF events, including Collection Systems.

Please uninstall the old app, and it will no longer work and search for and install our new "WEF Events Connect" App.

View full program details and the exhibitor list, then start building your #Collections19 agenda.

Download "**WEF Events Connect**" now from the Google Play OR Apple App Store. Use the App on other web-enabled devices can access the app via the web at <https://bit.ly/2EdQCUt>.

***For the first time, we will be going paperless for surveys. All session feedback will be done via the App. Please complete in-app feedback tool on individual presentations, sessions, workshops, and more!***

## CONFERENCE SAFETY AND SECURITY

### Indiana Convention Center Emergency Response Procedures

Should an emergency arise, all attendees shall be informed by public announcement messages and facility personnel of the proper actions to take.

Should attendees witness an emergency situation, i.e. visible smoke, someone in need of medical attention, or the need for security attendees should dial 3350 on a red phone (Emergency Phones Are Located Approximately Every 250 feet). In the event they cannot locate a red phone, please dial 317-262-3350.

## CONTINUING EDUCATION TRACKING

NEW – You can track your activity for workshops, technical sessions and mobile sessions that you have scanned in and out of at the Collection Systems Conference 2019.

Ensure you scan in and out of every activity to earn continuing education credits and track them live at this website: <https://ceu.experientevent.com/WEF195>

You can also find this link on [www.wef.org/CollectionSystems](http://www.wef.org/CollectionSystems)

If you fail to scan in or out of a session and need assistance fixing this, please email [CE@wef.org](mailto:CE@wef.org).

## CONTINUING EDUCATION

**The Collection Systems Conference™ 2019 - Continuing Education files available online immediately after event!**

**Track your scans live here:** <https://ceu.experientevent.com/WEF195>

You will be able to view your participation details and access your Continuing Education Credits for Workshops and Technical Sessions online. Attendees will have immediate access to their certificates and transcripts through an online portal for 1 year after this event. After that time CE files will have to be requested by email through WEF's customer service group. **These details will be posted on the Continuing Education page of WEF.org and emailed to event participants after the conference.**

### **How Do I Receive Credit For this Conference?**

To receive credit for all technical sessions and pre-conference workshops, please scan your badge when entering and exiting that activity.

If an attendee fails to scan in/out of a session(s) they must email detailed information regarding the unscanned session(s)/times to [CE@wef.org](mailto:CE@wef.org).

### **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 will be available immediately upon receiving the website link after the conference.

Please keep in mind that although WEF does provide these files, most states will require the individual licensee 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 without issue. 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...

In keeping with IACET guidelines, 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 8:30am and 5:00pm EST, Monday through Friday to request these files. Please call 1-800-666-0206 or submit an email request to [csc@wef.org](mailto:csc@wef.org).

### State Credit Calculations:

\*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](http://www.wef.org/CollectionSystems)**

## ONLINE PROCEEDINGS

Conference proceedings, consisting of manuscripts for each presentation, have been made available through an online portal. Advance registrants within Full Conference, Daily, Student, and Exhibiting categories will receive access to the Collection Systems 2019 online proceedings on the day prior to the conference. Onsite registrants will receive an access link following the event's conclusion.

Copies of proceedings may be ordered after the conference at the member rate of \$100 USD/nonmember rate of \$150 USD. All orders will be processed after conclusion of the conference. You may call 1-800-666-0206 or visit [www.wef.org/ShopWEF](http://www.wef.org/ShopWEF) and ask for Stock Number – CPCS1903

## TECHNICAL PUBLICATION



### **Wastewater Collection System Operator Certification Studybook (2nd Edition)**

Member: \$50.50

Non-member: \$76.18

The importance and need for properly trained and certified wastewater collection system operators is increasingly being recognized. This recognition is reflected in the many voluntary and mandatory certification requirements for wastewater collection system professionals. These certification programs require that operators pass written examinations that typically cover a wide-range of management and operations and maintenance topics.

*Price inclusive of 20% discount and 7% Indiana state sales tax*

## SPONSORSHIP INFORMATION

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



[www.infosense.com](http://www.infosense.com)

Gold

Booth 301

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[www.hdrinc.com](http://www.hdrinc.com)

Bronze Elite

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[www.arcadis.com](http://www.arcadis.com)

Networking Reception

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[www.doetschenv.com](http://www.doetschenv.com)

Tote Bag

Booth 225

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[www.stantec.com](http://www.stantec.com)

Opening General Session

## WEF POLICIES & POSITIONS

### **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](http://www.wef.org/about/about-wef).

### **Reporting Concerns**

If you have any concerns during this conference, please stop by the conference registration desk in Lobby D of the Indiana Convention Center or you may email the WEF Executive Director Dr. Eileen O'Neill at [eoneill@wef.org](mailto:eoneill@wef.org).

## WEF SOCIAL MEDIA POLICY

WEF strongly encourages the use of social media to share your experiences at our event. This includes sharing interesting quotes or information, taking pictures with colleagues, and using the event hashtag. 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.



## PRE- CONFERENCE WORKSHOPS

### **Workshop A: Best Sewer Rehabilitation Practices for Mitigating I/I: Integrated Approaches, Innovative Technologies and Interactive Solutions**

**Tuesday, June 4**

**8:30 AM – 5:00 PM**

*(Separate registration fees apply)*

- |                 |  |
|-----------------|--|
| <b>8:30 AM</b>  | <b>Welcome &amp; Workshop Introduction</b><br>Tim Sumner, CMT  |
| <b>8:45 AM</b>  | <b>Back to Basics: An Overview of Sewer Rehabilitation Technologies</b><br>Ted DeBoda, Baltimore County, MD  |
| <b>9:15 AM</b>  | <b>Interactive Session #1: What Practices Do You Use and What Are the Drivers for Your I/I Reduction Program?</b><br>Phil Hubbard, HRSD  |
| <b>10:00 AM</b> | <b>Networking Break in Meeting Room Foyer Area</b>   |
| <b>10:30 AM</b> | <b>Case Study #1: Sewer Rehabilitation Results 30 Years Later in Fayetteville, AR</b><br>David Jurgens, City of Chesapeake, VA   |
| <b>11:00 AM</b> | <b>Case Study #2: Sewer Rehabilitation Practices at Washington Suburban Sanitary Commission</b><br>Omar Muhammad, Washington Suburban Sanitary Commission  |
| <b>11:30 AM</b> | <b>Case Study #4: Utilizing New Technologies to Reduce I/I</b><br>Firat Sever, QuakeWrap   |
| <b>12:00 PM</b> | <b>Break for Lunch in Meeting Room Foyer Area</b>  |
| <b>1:30 PM</b>  | <b>Interactive Session #2: Small Group Exercise – Selecting Effective I/I Reduction Methodologies for Sub-basin #1.</b><br>Britt Babcock, Avanti; Srini Vallabhaneni, Stantec  |
| <b>3:00 PM</b>  | <b>Networking Break in Meeting Room Foyer Area</b>   |
| <b>3:30 PM</b>  | <b>Advances in Rehabilitation Technology #1: Assessment of Life-Cycle Performance of Trenchless Technologies Used for Rehabilitation of Pipelines</b><br>John Matthews, Trenchless Technology Center at Louisiana Tech |
| <b>4:00 PM</b>  | <b>Advances in Rehabilitation Technology #2: Structural Capabilities of No-Dig Manhole Rehabilitation</b><br>Walter Graf, The Water Research Foundation  |
| <b>4:30 PM</b>  | <b>Interactive Session #3: Panel Discussion - Ask the Experts/Speakers</b><br>Tim Sumner, CMT; Phil Hubbard, HRSD  |
| <b>5:00 PM</b>  | <b>Workshop Adjourns</b>   |

## PRE- CONFERENCE WORKSHOPS

### **Workshop B: Infiltration and Inflow Modeling for Collection System Utilities**

**Tuesday, June 4**

**8:30 AM – 5:00 PM**

*(Separate registration fees apply)*

- |                 |   |
|-----------------|---|
| <b>8:30 AM</b>  | <b>Welcome &amp; Workshop Introduction</b><br>Matthias Wittenberg, CDM Smith  |
| <b>8:35 AM</b>  | <b>Elements to Successful Monitoring Programs</b><br>Kevin Enfinger, ADS Environmental Services   |
| <b>9:00 AM</b>  | <b>Breakout Session #1 – Monitoring Plan Development</b><br>Kevin Enfinger, ADS Environmental Services; Table Facilitators  |
| <b>9:40 AM</b>  | <b>How Much Did It Rain? - Understanding Your System Response</b><br>Baxter Vieux, Vieux, Inc.  |
| <b>10:00 AM</b> | <b>Networking Break in Meeting Room Foyer Area</b>  |
| <b>10:30 AM</b> | <b>Rainfall and Flow Data Quality Control at NEORSD - A Mid-West Utility Perspective</b><br>William Fussner, NEORSD   |
| <b>10:55 AM</b> | <b>Breakout Session #2 – Monitoring Data QC</b><br>William Fussner, NEORSD; Table Facilitators  |
| <b>11:20 AM</b> | <b>Hydrologic Modeling Basics for Collections Systems</b><br>Matthias Wittenberg, CDM Smith; Carlos Toro, Brown and Caldwell  |
| <b>11:45 PM</b> | <b>Break for Lunch in Meeting Room Foyer Area</b>   |
| <b>1:30 PM</b>  | <b>Breakout Session #3 - RDII Modeling with RTK</b><br>Matthias Wittenberg, CDM Smith; Table Facilitators   |
| <b>2:20 PM</b>  | <b>Progression of King County's I/I Program - From Monitoring and Modeling to Capital Planning</b><br>Homero Flores, King County  |
| <b>2:40 PM</b>  | <b>Wet Weather Collection System Modeling Made Big – The L.A. Story</b><br>Javier Dennis, City of Los Angeles Sanitation  |
| <b>3:00 PM</b>  | <b>Networking Break in Meeting Room Foyer Area</b>  |
| <b>3:30 PM</b>  | <b>Breakout Session #4 - RDII Modeling with HSPF</b><br>Carlos Toro, Brown and Caldwell; Table Facilitators   |
| <b>4:20 PM</b>  | <b>How RDII Modeling Effectively Focused Rehabilitation and Replacement Projects - A City of Virginia Beach Case Study</b><br>Stephen Motley, Virginia Beach Public Utilities |

*Workshop B Agenda continued on next page*

## PRE- CONFERENCE WORKSHOPS

*Workshop B Agenda continued from previous page*

<b>4:40 PM</b>	<b>Breakout Session Results Comparison and Panel Discussion</b>
<b>4:55 PM</b>	<b>Closing Remarks</b> Carlos Toro, Brown and Caldwell
<b>5:00 PM</b>	<b>Workshop Adjourns</b>

## **FACILITY TOURS**

### **Facility Tour A: Belmont AWTP and Juan Soloman Park Lift Station Thursday, June 6**

**1:00 PM – 4:00 PM**

*Meet at the Registration Desk by 12:45 PM*

*(Separate registration fees apply)*

This tour will include a site visit to one of Indianapolis' most interesting lift stations, with a capacity of XX MGD, constructed under Juan Soloman Park in an Indianapolis neighborhood! Following the lift station tour, attendees will move to the Belmont Advanced Wastewater Treatment Plant (AWTP), one of two treatment plants owned and operated by Citizens Energy Group. Belmont AWTP was expanded to 300 MGD as part of the Combined Sewer Overflow Consent Decree and included improvements like eliminating primary effluent discharge and adding wet weather storage basins, new clarifiers, and UV disinfection. The tour will include a walkthrough of the plant, highlighting recent process improvements.

### **Facility Tour B: DigIndy Deep Rock Tunnel Friday, June 7**

**8:30 AM – 11:30 AM**

*Meet at the Registration Desk by 8:15 AM*

*(Separate registration fees apply)*

This tour will include a site visit to one finished drop shaft location, which serves to drop consolidated combined sewers approximately 240 feet to the deep rock tunnel elevation. The site includes a screen and gate structure to condition flow, two deep shafts, and an equipment building for control. Located in one of Indy's parks, this site will highlight challenges of working with businesses, residents, and park users. Following the drop shaft site, attendees will be transported to the working shaft location for the DigIndy deep rock tunnel project and have the opportunity to descend via personnel cage the 240' to the bottom of the tunnel for a truly groundbreaking experience.

## OPENING GENERAL SESSION

### Opening General Session

Wednesday, June 5

8:30 AM – 10:00 AM

Room 103/104

*Sponsored by Stantec*

- |                 |  |
|-----------------|--|
| <b>8:30 AM</b>  | <b>WEF Collection Systems Conference Chair Welcome</b><br>Christy Willson, Horner & Shifrin, Inc., CS Specialty<br>Conference Committee Chair<br>Bradley E. Fix, City of Shelbyville, Local Planning Group Chair |
| <b>8:35 AM</b>  | <b>WEF Welcome</b><br>Ifetayo Venner, WEF Board of Trustees  |
| <b>8:45 AM</b>  | <b>City of Indianapolis Welcome</b><br>Honorable Mayor Joseph Hogsett  |
| <b>9:00 AM</b>  | <b>Citizens Energy Group Welcome</b><br>Mark Jacob, CEG  |
| <b>9:25 AM</b>  | <b>Race to Indy Keynote</b><br>Jarrod Krisiloff, Indianapolis Motor Speedway   |
| <b>9:55 AM</b>  | <b>WEF Collection Systems 2020 Destination</b><br>Christy Willson, Horner & Shifrin, Inc., CS Specialty<br>Conference Committee Chair  |
| <b>10:00 AM</b> | <b>Session Adjourns for Networking Break in Exhibit Hall</b>   |

## MOBILE SESSION I

### Mobile Session I

Wednesday, June 5

10:30 AM – 11:50 AM

Exhibit Hall

**Facilitators:** Jim Shelton, ARCADIS; Jimmy Stewart, Xylem Inc.; Jeffery Griffiths, Hydromax USA; Carl Chan, Stantec; Tim Back, Back Municipal Consulting; Matt Spidel, Butler, Fairman, Seifert; Christy Willson, Horner & Shifrin, Inc.; Diane Grossenheider, HDR; Scott Helfrick, ADS Environmental Services; Cheryl Paulin, ADS Environmental Services; Teddy Deahl, Bowen Engineering

*The five 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 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	5 Simultaneous Presentation A
11:00 AM	5 Simultaneous Presentation B
11:25 AM	5 Simultaneous Presentation C

**Booth 301**      **How Acoustic Inspection Helps Utilities Develop a Proactive Collections Maintenance Program**  
Alex Churchill, InfoSense Inc

**Booth 319**      **Starting Upstream: Utilizing the Collection System Bioreactor to Enhance WWTP Performance**  
Ian Watson, USP Technologies

**Booth 212**      **Non-Contact LaserFlow Area Velocity Flow Technology**  
Rick L Dey, Teledyne Isco

**Booth 226**      **Using Machine Learning to Continuously Monitor I/I and Collection System Wet Weather Response**  
Kevin Marsh, FlowWorks, Inc

**Booth 107**      **Wastewater Pumps with Integrated Intelligence - The Next Pump Industry Breakthrough**  
Tyler Elkins, Xylem, Inc

## TECHNICAL PROGRAM

### **Session 01: Tunnels**

**Wednesday, June 5**

**10:45 AM – 11:45 AM**

**Room 103/104**

**Moderators:** Dave Servidio, Mott MacDonald; Carl Chan, Stantec

- 10:45 AM**      **The City of Ottawa Combined Sewage Storage Tunnel: Managing Risks from Design Through Construction**  
Shawn Ireland, Colin Goodwin, Adrien Comeau, Stantec;  
Steven Courtland, City of Ottawa
- 11:15 AM**      **The City of Columbus Lower Olentangy Tunnel: Selecting an Alignment to Extend the OARS Tunnel**  
Robert Herr, City of Columbus; Nathan Dickman, Jeffrey Coffey, DLZ Corp
- 11:45 AM**      **Session Adjourns for Lunch in Exhibit Hall**
- Alternate**      **Application of Real-Time Weather Forecast in Collection System Operation**  
Tiantian Xiang, Hazem Gheith, Arcadis; John Newsome, City of Columbus

## TECHNICAL PROGRAM

### **Session 02: Trenchless**

**Wednesday, June 5**

**1:30 PM – 4:45 PM**

**Room 103/104**

**Moderators:** Dianne Sumego, DMS Water Solutions, LLC; Jeffery Griffiths, Hydromax USA

- 1:30 PM**                      **The Columbus LIS Microtunnel - Providing Wastewater Capacity to the Rapidly Developing Rickenbacker Area**  
Jeremy Cawley, City of Columbus DOSD; Irwan Halim, Steven Thompson, AECOM; Michael Nuhfer, Aldea Services
- 2:00 PM**                      **Employing Combined Technologies to Save Combined Brick Sewers: Trenchless Rehabilitation in Omaha, Nebraska**  
Brian Culich, AP/M Permaform
- 2:30 PM**                      **Kingsbury Run Culvert Repair Project - How a Challenging Urban Bypass Sewer Tunnel Became a United States Record Holder for Double-Curved Microtunneling**  
Amanda Foote, Sven Wiberg, AECOM; Anthony Margevicius, Steve Janosko, Doug Lopata, Brian Daugherty, Northeast Ohio Regional Sewer District
- 3:00 PM**                      **Networking Break in Exhibit Hall**
- 3:45 PM**                      **Private I/I Reduction - Chapel Drive Pump Station No. 2 Service Area Rehabilitation**  
Tad Powell, Hazen and Sawyer
- 4:15 PM**                      **Long-Term Solution to an Age-Old Problem: Maintaining Aging Manholes in Laredo, TX**  
Angel Leon, City of Laredo; Van Young, AP/M Permaform
- 4:45 PM**                      **Session Adjourns for Networking Reception in Exhibit Hall**



## TECHNICAL PROGRAM

**Session 03: Combined Sewer Overflows/Sanitary Sewer Overflows**  
**Wednesday, June 5**  
**1:30 PM – 4:45 PM**  
**Room 107/108**

**Moderators:** Walter Graf, Water Research Foundation; Dave Servidio, Mott MacDonald

- 1:30 PM**                      **Innovative Hydraulic Design to Manage Large Supercritical Flow Diversion for CSO Control**  
James Talian, City of Lynchburg; Nikolaos Apsilidis, Greeley and Hansen; Troy Lyons, IIHR- Hydrosience & Engineering; Tony Loeser, IIHR - University of Iowa
- 2:00 PM**                      **A Suite of Integrated Tools and Processes for Efficiently Planning Sewer System Improvements**  
Kevin Vander Tuig, Derek Wride, Luat Le, Craig Schroeder, Wade Trim; Lita Laven, Northeast Ohio Regional Sewer District
- 2:30 PM**                      **True Integrated Planning - Using Clean Water Act Investments to Transform a Cincinnati Community**  
Michael Ellerbrock, Strand Associates, Inc.
- 3:00 PM**                      **Networking Break in Exhibit Hall**
- 3:45 PM**                      **How Bangor, Maine Will Expand a 20-Year Old Storage Facility Threefold Along a Vibrant Waterfront**  
Kate Mignone, AECOM; John Theriault, Andrew Rudzinski, City of Bangor; Greg Heath, Steven Freedman, AECOM
- 4:15 PM**                      **Preventing Future SSOs through Flow Management Plan and Installation of Flow Equalization Tanks**  
Jun Meng, Greeley and Hansen; Scott Schiller, Rivanna Water and Sewer Authority
- 4:45 PM**                      **Session Adjourns for Networking Reception in Exhibit Hall**
- Alternate**                      **Smart Sewers Serve Up Triple-Play: Preventing Spills, Fines and Intruders in Clayton County**  
Jeffrey Jones, Clayton County Water Authority; Glen Hill, Greg Quist, Smartcover Systems

## TECHNICAL PROGRAM

### **Session 04: Potpourri**

**Wednesday, June 5**

**1:30 PM – 4:45 PM**

**Room 109/110**

**Moderators:** Jennifer Welsch, Metro Saint Louis Sewer District; Christy Willson, Horner & Shifrin Inc.

- 1:30 PM            Asset Management System for the Allegheny County Sanitary Authority (ALCOSAN)**  
David Bingham, AECOM; Jan Oliver, Joseph Sparbanie, Allegheny County Sanitary Authority; George Sarapa, Lauren Terpak, AECOM
- 2:00 PM            Rock Creek Public Sewer District Private Lateral Inspection Program**  
Donald Daniel, Eric Knoll, Rock Creek Public Sewer District
- 2:30 PM            Right Sizing Your Capital Improvement Program: Utilizing Flow Monitoring Data to Determine the Need for Contingency Projects**  
Andrew Kaufman, Richard Kauffman, Metropolitan Sewer District of St. Louis
- 3:00 PM            Networking Break in Exhibit Hall**
- 3:45 PM            Flow Monitoring Data Quality Control and Quality Assurance**  
Christine Heinrich-Josties, Regidia Voong, Lenise Marrero, Ali Poosti, City of Los Angeles Bureau of Sanitation
- 4:15 PM            Lafayette Renew's UOTF CSO LTCP Implementation**  
Tim Healy, Greeley & Hansen; Bradley Talley, City of Lafayette, Lafayette Renew; Teddy Deahl, Bowen
- 4:45 PM            Session Adjourns for Networking Reception in Exhibit Hall**
- Alternate           Considerations for Design, Construction and Operation of Force Mains**  
Ahmad Habibian, Christopher Michalos, CDM Smith

## TECHNICAL PROGRAM

### Session 05: System Analysis

Thursday, June 6

8:30 AM – 11:45 AM

Room 103/104

**Moderators:** Greg Heath, AECOM; Jimmy Stewart, Pure Technologies

- 8:30 AM**                    **Get More Out of Your Real Time Control Facility**  
Robert Kneip, MSDGC; Reese Johnson; Shirish Agarwal, Don Wendorff, Jacobs
- 9:00 AM**                    **How HRSD is Operating Their Collection System Like a Stock Exchange**  
Maria Krug Comuniello, Xylem; Robert Radspinner, HRSD
- 9:30 AM**                    **Supporting Regulatory Compliance Strategies through Water Quality Modeling**  
Christopher Ranck, Arcadis; Olivia Hawbaker, Derek Sutton, Citizens Energy Group
- 10:00 AM**                    **Networking Break in Exhibit Hall**
- 10:45 AM**                    **Death by 1,000 Cuts - Identification of Collection System Rehabilitation Priorities through Modeling, Mass Balance, and Field Investigation**  
Tim Loper, Elisa Garvey, Carollo Engineers
- 11:15 AM**                    **Building Smarter, Healthier Communities Through Wastewater Opioid Monitoring**  
Donald Smith, Town of Cary; Newsha Ghaeli, Biobot Analytics
- 11:45 AM**                    **Session Adjourns for Lunch in Exhibit Hall**
- Alternate**                    **LASAN's Wet Weather Planning: One Year at a Time**  
Christine Heinrich-Josties, Regidia Voong, Lenise Marrero, Ali Poosti, City of Los Angeles, Bureau of Sanitation

## TECHNICAL PROGRAM

### Session 06: Delivering Products

Thursday, June 6

8:30 AM – 11:45 AM

Room 107/108

**Moderators:** Christy Willson, Horner & Shifrin Inc., Dan Murray, EPA

- 8:30 AM**                      **Innovative Flow Equalization, SS-200 Flow EQ Improvements, Northwestern Water & Sewer District**  
Theodore Bennett, Jones & Henry Engineers, Ltd.
- 9:00 AM**                      **Getting the Most out of Your Storage Basin: Optimization Strategies for Planning, Design, and Construction**  
Bryan Rogne, Thomas Noerenberg, Brown and Caldwell
- 9:30 AM**                      **Keeping History Alive: A Phased Plan for Revitalizing an Aged Combined Sewer Interceptor in Conjunction with the Ongoing Redevelopment of the Richmond, Virginia Riverfront**  
Quinton Nottingham, City of Richmond Virginia DPU; Brandon Cooper, Greeley and Hansen; Susan Hamilton, City of Richmond Virginia DPU; George Guhse, Greeley and Hansen
- 10:00 AM**                      **Networking Break in Exhibit Hall**
- 10:45 AM**                      **90-foot-Deep Wastewater Pump Station Increases Wastewater System Reliability**  
Tim Taylor, Carollo Engineers
- 11:15 AM**                      **Design Tools for Upgrading Underground Infrastructure in a Congested Urban Environment**  
Alan Stadler, Cathy Findley, Sam Glovick, Wade Trim; Alison Schreiber, Northeast Ohio Regional Sewer District
- 11:45 AM**                      **Session Adjourns for Lunch in Exhibit Hall**

## TECHNICAL PROGRAM

### **Session 07: Condition Assessment**

**Thursday, June 6**

**8:30 AM – 11:45 AM**

**Room 109/110**

**Moderators:** Cheryl Paulin, ADS Environmental Services; Dianne Sumego, DMS Water Solutions, LLC

- 8:30 AM**                      **Video Brings a New Vision to Water Pipeline Assessments**  
Stephen Jeffus, RJN Group Inc
- 9:00 AM**                      **Creek Crossing Risk Assessment - A Dual Condition Assessment of Sanitary Infrastructure and Urban Streams for Prioritizing Stabilization Projects to Prevent Sewer Failures and SSOs**  
Susan Hamilton, City of Richmond Virginia DPU; Brandon Cooper, Ben Custalow, Greeley and Hansen
- 9:30 AM**                      **Before Upgrading Your Sewer, Upgrade Your Sewer Inspection**  
Christopher Wohlleb, Mott MacDonald
- 10:00 AM**                      **Networking Break in Exhibit Hall**
- 10:45 AM**                      **Using Sewer Slopes and Other Attributes to Identify Areas of Potential Microbial-Induced Corrosion in a Sanitary Sewerage System**  
Sally Duffy, Karyn Stickel, Christopher Ross, Hubbell, Roth & Clark, Inc; Brian Coburn, Oakland County WRC
- 11:15 AM**                      **Concrete Pipe Trunk Sewer Condition Assessment and Rehabilitation**  
Steven Meyer, Bowen, Collins & Associates; Sean O'Rourke, Hazen and Sawyer
- 11:45 AM**                      **Session Adjourns for Lunch in Exhibit Hall**
- Alternate**                      **Condition and Hydraulics Assessments Troubleshoot High Flow Levels on the Carderock/Scotts Run Sewer**  
Jennifer Howells, Paul Batman, Arcadis; Thomas Grala, Fairfax County; John Paul Travis, Arcadis

## MOBILE SESSION II

### Mobile Session II: Emerging Topics and Technologies

Thursday, June 6

12:30 PM – 1:30 PM

Exhibit Hall

**Facilitators:** Jimmy Stewart, Xylem Inc.; Jim Shelton, ARCADIS; Diane Grossenheider, HDR; Scott Helfrick, ADS Environmental Services; Cheryl Paulin, ADS Environmental Services; Keith Hicks, GRIPP; Teddy Deahl, Bowen Engineering; Christy Willson, Horner & Shifrin, Inc.; Jeffery Griffiths, Hydromax USA; Carl Chan, Stantec; Matt Spidel, Butler, Fairman, Seifert

*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. Presentations kickoff concurrently at 12:30 PM, 12:50 PM, and 1:05 PM in each of the four booths.*

12:25 PM	Mobile Session Introduction at entrance to exhibit hall
12:30 PM	4 Simultaneous Presentation A
12:50 PM	4 Simultaneous Presentation B
1:05 PM	4 Simultaneous Presentation C

**Booth 219**      **A New Generation of Monitors Drives Informed, Actionable Decision Impacting Operations, Prioritizing CIP**  
Eric Lott, ADS, LLC

**Booth 107**      **Get Smart: Real Time Decision Support Systems Significantly Reduce LTCP Expenditures**  
Jennifer Steffens, Xylem, Inc

**Booth 302**      **The Future of Sewer Assessment**  
Veronica Alvarez, RapidView IBAK North America

**Booth 317**      **Advanced Robotic Inspection: A Better View Inside Your Pipes**  
Chris White, RedZone Robotics

## TECHNICAL PROGRAM

### **Session 08: Forcemain**

**Thursday, June 6**

**1:30 PM – 3:00 PM**

**Room 103/104**

**Moderators:** Dan Murray, EPA; Jennifer Welsch, Metro Saint Louis Sewer District

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|----------------|--|
| <b>1:30 PM</b> | <b>City of Regina Third Sewage Force Main - Construction of a 60-inch (1,500 mm) PVC Force Main</b><br>Alex Munoz, <u>Michael Georgalas</u> , Jason Gaudet, Stantec Consulting Services Inc.                                     |
| <b>2:00 PM</b> | <b>Force Main Assessment Program Development and Inspection: A Case Study in Baltimore, MD</b><br><u>Amy Bley</u> , RJN Group, Inc.; Thomas Kiefer   |
| <b>2:30 PM</b> | <b>Force Main Criticality Assessment and Prioritization as a Prerequisite to Performing Condition Assessment</b><br><u>William Sukenik</u> , <u>Kent Veech</u> , Woolpert; Amanda Kinnick, Miami-Dade Water and Sewer Department |
| <b>3:00 PM</b> | <b>Session Adjourns for Networking Break in Exhibit Hall</b>   |

## TECHNICAL PROGRAM

**Session 09: Local I**  
**Thursday, June 6**  
**1:30 PM – 3:00 PM**  
**Room 107/108**

**Moderators:** Srinu Vallabhaneni, Stantec; Karyn Stickel, Hubbell, Roth & Clark, Inc

- 1:30 PM**                      **Modeling of the Three Rivers Protection and Overflow Reduction Tunnel**  
Matthew Pierce, Black & Veatch; Wendy Reust, TJ Short, Kristen Buell, City of Fort Wayne
- 2:00 PM**                      **Citizens Energy Group's Septic Tank Elimination Program: STEP-in Forward to Cost-Efficiently Eliminate Septic Tanks**  
Joe Nagy, Jessica Bastin, Citizens Energy Group
- 2:30 PM**                      **Making Informed Decisions: Using GIS with InfoMaster to form an Underground Asset Management Plan**  
Derek Sutton, Bill Adams, Christina Bowers, Rebecca Schaefer, Citizens Energy Group
- 3:00 PM**                      **Session Adjourns for Networking Break in Exhibit Hall**
- Alternate**                      **Souping-Up Indiana's Future Engineers through Citizens Energy Group's Partnership for Excellence in Research & Learning Program**  
Joe Nagy, Rebecca Schaefer, Citizens Energy Group



<b>TECHNICAL PROGRAM</b>
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**Session 10: Operation & Maintenance**

**Thursday, June 6**

**1:30 PM – 3:00 PM**

**Room 109/110**

**Moderators:** Jimmy Stewart, Pure Technologies; Walter Graf, Water Research Foundation

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|----------------|---|
| <b>1:30 PM</b> | <b>The Evolution of CMOM: Historical and Future Perspectives</b><br><u>Jane McLamarrah</u> , Stantec Consulting Services  |
| <b>2:00 PM</b> | <b>Non-Destructive Investigation Options for Hydrogen Sulfide Corrosion in Collection Systems - Uxbridge, MA Investigation and Rehabilitation Case Study</b><br><u>Anastasia Rudenko</u> , Marc Drainville, GHD; Benn Sherman; James Legg, Town of Uxbridge |
| <b>2:30 PM</b> | <b>Golf Course Sewer Cleaning Solution</b><br>Kim Nezat, Nezat Training and Consulting, Inc.; <u>Rusty Nezat</u> , Jigawon, Inc.  |
| <b>3:00 PM</b> | <b>Session Adjourns for Networking Break in Exhibit Hall</b>  |

## TECHNICAL PROGRAM

### Session 11: Asset Management

Friday, June 7

8:30 AM – 11:45 AM

Room 103/104

**Moderators:** Karyn Stickel, Hubbell, Roth & Clark, Inc; Greg Heath, AECOM

- 8:30 AM**                      **Utility Utilizes Decision Matrix built on Triple Bottom Line Elements to Select Highest-Scoring Alternative for Sanitary Sewer Improvements**  
William Gibson, AECOM; Timothy Marsh, Jeffrey Scarano, HRSD
- 9:00 AM**                      **Developing a Focused CIP to Optimize Resources using Pipeline Renewal Models**  
David Baranowski, Felicia James, Eric Harold, Carollo Engineers, Inc.
- 9:30 AM**                      **Asset Management and Sustainability for the North Outfall Trunk Sewer**  
Emilio Lopez, Alfredo Zaldivar, Regidia Voong, Ali Poosti, City of Los Angeles - Department of Public Works
- 10:00 AM**                      **Networking Break in Meeting Room Foyer Area**
- 10:15 AM**                      **Asset Management Regulations Are Coming, Are You Ready?**  
Kevin Slaven, ARCADIS
- 10:45 AM**                      **Performing a Desktop Analysis to Justify Funding a Sustainable Sewer Asset Management Program**  
Timothy Sumner, Crawford, Murphy and Tilly Inc
- 11:15 AM**                      **Faster, Smarter, Cheaper, Safer: Too Good to Be True? Manhole Inspection and Rehabilitation in Chandler, Arizona**  
Robert Buss, Carollo Engineers
- 11:45 AM**                      **Conference Adjourns**

## TECHNICAL PROGRAM

### Session 12: Inflow and Infiltration

Friday, June 7

8:30 AM – 11:45 AM

Room 107/108

**Moderators:** Carl Chan, Stantec; Cheryl Paulin, ADS Environmental Services

- 8:30 AM**                      **Inflow and Infiltration Reduction Success Utilizing a Public-Private Partnership (P3) Framework**  
Matthew Malone, Edward Graham, Civica Infrastructure Inc.; Katy Modaressi, Daniel Bertolo, York Region
- 9:00 AM**                      **Inflow and Infiltration Reduction - In It for The Long Haul**  
Catherine Morley, RJN Group; Paul Burris, City of Elmhurst; Vinnie Bergl, RJN Group
- 9:30 AM**                      **Improving Water Quality in San Francisco Bay through I/I Reduction**  
Christopher Dinsmore, Eileen White, EBMUD; Eric Fontenot, DHI
- 10:00 AM**                     **Networking Break in Meeting Room Foyer Area**
- 10:15 AM**                     **I/I Strategy - a Cultural Change**  
Farshad Salehzadeh, Region of Peel
- 10:45 AM**                     **We Do This for the Kids and Fishes: Implementing Comprehensive Public and Private Rehabilitation to Eliminate SSOs near Schools**  
Tammy Cleys, Carollo Engineers; David Collins, David Collins Engineering; Ian Besaw, Henry Young, City of Portland
- 11:15 AM**                     **Kansas City Missouri Private I/I Program**  
Sara Goebel, Cliff Cate, Burns and McDonnell
- 11:45 AM**                     **Conference Adjourns**
- Alternate**                     **A Practical Approach for Addressing Deficiencies in EPA's 2014 I/I Estimation Method**  
George Kurz, Sewer Capacity Management; Robert O'Dette, State of Tennessee

## TECHNICAL PROGRAM

### Session 13: Local II

Friday, June 7

8:30 AM – 11:45 AM

Room 109/110

**Moderators:** Jane McLamarrah, Stantec; Jeremy Nitka, Arcadis

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|------------------|--|
| <b>8:30 AM</b>   | <b>South Bend, Indiana's Approach for Wet Weather Planning and CSO Control: Reevaluating a \$\$\$ LTCP</b><br><u>Karen Saavedra</u> , American Structurepoint; <u>Kieran Fahey</u> , City of South Bend; <u>Joe Johnson</u> , Stantec; <u>Jordan McCormack</u> , American Structurepoint |
| <b>9:00 AM</b>   | <b>Why Winning the Race to Reduce Sewer Overflows Means Embracing Weather Radar and Rain Gauge Measurements</b><br><u>Baxter Vieux</u> , Vieux & Associates, Inc.; <u>Christopher Ranck</u> , Arcadis; <u>Derek Sutton</u> , Citizens Energy Group                                       |
| <b>9:30 AM</b>   | <b>From Break to Beautiful: Clarksville's Effluent Discharge Relocation from the Ohio River to Mill Creek</b><br><u>Brittany Montgomery</u> , Town of Clarksville  |
| <b>10:00 AM</b>  | <b>Networking Break in Meeting Room Foyer Area</b>   |
| <b>10:15 AM</b>  | <b>Downtown Muncie Sewer Separation Using GSC Project Delivery</b><br><u>Peter Wamsley</u> , Beam Longest and Neff LLC; <u>Teddy Deahl</u> , Bowen   |
| <b>10:45 AM</b>  | <b>Utilizing Neural Networks, Real Time Data, and Forecasting to Improve Wet Weather Operations in Evansville, IN</b><br><u>Patrick Henthorn</u> , Xylem; <u>Harry Lawson</u> , EWSU   |
| <b>11:15 AM</b>  | <b>Design, Full-Scale Operation, and Lessons Learned of the First Installed Pile Cloth-Media Disk Filters for Combined Tertiary &amp; Wet Weather Treatment</b><br><u>Katherine Merkle</u> , Donohue & Associates  |
| <b>11:45 AM</b>  | <b>Conference Adjourns</b>   |
| <b>Alternate</b> | <b>The Change is Continuing: A Better Combined Sewer Model Realizes Capital Savings</b><br><u>Christopher Ranck</u> , Arcadis; <u>Derek Sutton</u> , Citizens Energy Group; <u>Hazem Gheith</u> , Arcadis; <u>Stephen Rowe</u> , Citizens Energy Group                                   |
| <b>Alternate</b> | <b>Overcoming Design Challenges of a Deep Pump Station</b><br><u>Zach Schortgen</u> , City of Fort Wayne; <u>Matthew Pierce</u> , Black & Veatch; <u>Chris Ravenscroft</u> , City of Fort Wayne; <u>Michael Cain</u> , Black & Veatch  |

## PRESENTATIONS AT-A-GLANCE

We encourage attendees to participate in presentations from among all sessions. To better plan your learning, see below and on the following pages a list of presentations offered during each time block.

Don't forget to give us feedback for each session via the new Mobile App.

Wednesday, June 5 Morning		
Room	Room 103/104	Exhibit Hall
Session	Session 01: Tunnels	
10:45 AM	The City of Ottawa Combined Sewage Storage Tunnel: Managing Risks from Design Through Construction	<b>10:30 - 11:50 AM: Mobile Session I</b>  -How Acoustic Inspection Helps Utilities Develop a Proactive Collections Maintenance Program;  -Starting Upstream: Utilizing the Collection System Bioreactor to Enhance WWTP Performance;  -Non-Contact LaserFlow Area Velocity Flow Technology;  -Using Machine Learning to Continuously Monitor I/I and Collection System Wet Weather Response;  -Wastewater Pumps with Integrated Intelligence - The Next Pump Industry Breakthrough
11:15 AM	The City of Columbus Lower Olentangy Tunnel: Selecting an Alignment to Extend the OARS Tunnel	
ALT	Application of Real-Time Weather Forecast in Collection System Operation	

## PRESENTATIONS AT-A-GLANCE

### Wednesday, June 5 Afternoon

Room	Room 103/104	Room 107/108	Room 109/110
	<b>Session 02: Trenchless</b>	<b>Session 03: Combined Sewer Overflows/Sanitary Sewer Overflows</b>	<b>Session 04: Potpourri</b>
1:30 PM	The Columbus LIS Microtunnel - Providing Wastewater Capacity to the Rapidly Developing Rickenbacker Area	Innovative Hydraulic Design to Manage Large Supercritical Flow Diversion for CSO Control	Asset Management System for the Allegheny County Sanitary Authority (ALCOSAN)
2:00 PM	Employing Combined Technologies to Save Combined Brick Sewers: Trenchless Rehabilitation in Omaha, Nebraska	A Suite of Integrated Tools and Processes for Efficiently Planning Sewer System Improvements	Rock Creek Public Sewer District Private Lateral Inspection Program
2:30 PM	Kingsbury Run Culvert Repair Project - How a Challenging Urban Bypass Sewer Tunnel Became a United States Record Holder for Double-Curved Microtunneling	True Integrated Planning - Using Clean Water Act Investments to Transform a Cincinnati Community	Right Sizing Your Capital Improvement Program: Utilizing Flow Monitoring Data to Determine the Need for Contingency Projects
3:45 PM	Private I/I Reduction - Chapel Drive Pump Station No. 2 Service Area Rehabilitation	How Bangor, Maine Will Expand a 20- Year Old Storage Facility Threefold Along a Vibrant Waterfront	Flow Monitoring Data Quality Control and Quality Assurance
4:15 PM	Long-Term Solution to an Age-Old Problem: Maintaining Aging Manholes in Laredo, TX	Preventing Future SSOs through Flow Management Plan and Installation of Flow Equalization Tanks	Lafayette Renew's UOTF CSO LTCP Implementation
<b>ALT</b>		Smart Sewers Serve Up Triple-Play: Preventing Spills, Fines and Intruders in Clayton County	Considerations for Design, Construction and Operation of Force Mains

## PRESENTATIONS AT-A-GLANCE

### Thursday, June 6 Morning

Room	Room 103/104	Room 107/108	Room 109/110
	<b>Session 05: System Analysis</b>	<b>Session 06: Delivering Products</b>	<b>Session 07: Condition Assessment</b>
8:30 AM	Get More Out of Your Real Time Control Facility	Innovative Flow Equalization, SS-200 Flow EQ Improvements, Northwestern Water & Sewer District	Video Brings a New Vision to Water Pipeline Assessments
9:00 AM	How HRSD is Operating Their Collection System Like a Stock Exchange	Getting the Most out of Your Storage Basin: Optimization Strategies for Planning, Design, and Construction	Creek Crossing Risk Assessment - A Dual Condition Assessment of Sanitary Infrastructure and Urban Streams for Prioritizing Stabilization Projects to Prevent Sewer Failures and SSOs
9:30 AM	Supporting Regulatory Compliance Strategies through Water Quality Modeling	Keeping History Alive: A Phased Plan for Revitalizing an Aged Combined Sewer Interceptor in Conjunction with the Ongoing Redevelopment of the Richmond, Virginia Riverfront	Before Upgrading Your Sewer, Upgrade Your Sewer Inspection
10:45 AM	Death by 1,000 Cuts - Identification of Collection System Rehabilitation Priorities through Modeling, Mass Balance, and Field Investigation	90 foot Deep Wastewater Pump Station Increases Wastewater System Reliability	Using Sewer Slopes and Other Attributes to Identify Areas of Potential Microbial- Induced Corrosion in a Sanitary Sewerage System
11:15 AM	Building Smarter, Healthier Communities Through Wastewater Opioid Monitoring	Design Tools for Upgrading Underground Infrastructure in a Congested Urban Environment	Concrete Pipe Trunk Sewer Condition Assessment and Rehabilitation
<b>ALT</b>	LASAN's Wet Weather Planning: One Year at a Time		Condition and Hydraulics Assessments Troubleshoot High Flow Levels on the Carderock/Scotts Run Sewer

## PRESENTATIONS AT-A-GLANCE

Thursday, June 6 Afternoon	
Room	Exhibit Hall
	<b>Mobile Session II: Emerging Topics and Technologies</b>
12:30 - 1:30 PM	A New Generation of Monitors Drives Informed, Actionable Decision Impacting Operations, Prioritizing CIP
	Get Smart: Real Time Decision Support Systems Significantly Reduce LTCP Expenditures
	The Future of Sewer Assessment
	Advanced Robotic Inspection: A Better View Inside Your Pipes



## PRESENTATIONS AT-A-GLANCE

Thursday, June 6 Afternoon			
Room	Room 103/104	Room 107/108	Room 109/110
Session	Session 08: Forcemain	Session 09: Local I	Session 10: Operation & Maintenance
1:30 PM	City of Regina Third Sewage Force Main - Construction of a 60-inch (1,500 mm) PVC Force Main	Modeling of the Three Rivers Protection and Overflow Reduction Tunnel	The Evolution of CMOM: Historical and Future Perspectives
2:00 PM	Force Main Assessment Program Development and Inspection: A Case Study in Baltimore, MD	Citizens Energy Group's Septic Tank Elimination Program: STEP-in Forward to Cost-Efficiently Eliminate Septic Tanks	Non-Destructive Investigation Options for Hydrogen Sulfide Corrosion in Collection Systems - Uxbridge, MA Investigation and Rehabilitation Case Study
2:30 PM	Force Main Criticality Assessment and Prioritization as a Prerequisite to Performing Condition Assessment	Making Informed Decisions: Using GIS with InfoMaster to form an Underground Asset Management Plan	Golf Course Sewer Cleaning Solution
ALT		Souping-Up Indiana's Future Engineers through Citizens Energy Group's Partnership for Excellence in Research & Learning Program	

## PRESENTATIONS AT-A-GLANCE

### Friday, June 7 Morning

Room	Room 103/104	Room 107/108	Room 109/110
	<b>Session 11: Asset Management</b>	<b>Session 12: Inflow and Infiltration</b>	<b>Session 13: Local II</b>
8:30 AM	Utility Utilizes Decision Matrix built on Triple Bottom Line Elements to Select Highest-Scoring Alternative for Sanitary Sewer Improvements	Inflow and Infiltration Reduction Success Utilizing a Public-Private Partnership (P3) Framework	South Bend, Indiana's Approach for Wet Weather Planning and CSO Control: Reevaluating a \$\$\$ LTCP
9:00 AM	Developing a Focused CIP to Optimize Resources using Pipeline Renewal Models	Inflow and Infiltration Reduction - In It for The Long Haul	Why Winning the Race to Reduce Sewer Overflows Means Embracing Weather Radar and Rain Gauge Measurements
9:30 AM	Asset Management and Sustainability for the North Outfall Trunk Sewer	Improving Water Quality in San Francisco Bay through I/I Reduction	From Break to Beautiful: Clarksville's Effluent Discharge Relocation from the Ohio River to Mill Creek
10:15 AM	Asset Management Regulations Are Coming, Are You Ready?	I/I Strategy - a Cultural Change	Downtown Muncie Sewer Separation Using GSC Project Delivery
10:45 AM	Performing a Desktop Analysis to Justify Funding a Sustainable Sewer Asset Management Program	We Do This for the Kids and Fishes: Implementing Comprehensive Public and Private Rehabilitation to Eliminate SSOs near Schools	Utilizing Neural Networks, Real Time Data, and Forecasting to Improve Wet Weather Operations in Evansville, IN
11:15 AM	Faster, Smarter, Cheaper, Safer: Too Good to Be True? Manhole Inspection and Rehabilitation in Chandler, Arizona	Kansas City Missouri Private I/I Program	Design, Full-Scale Operation, and Lessons Learned of the First Installed Pile Cloth-Media Disk Filters for Combined Tertiary & Wet Weather Treatment
<b>ALT</b>		A Practical Approach for Addressing Deficiencies in EPA's 2014 I/I Estimation Method	The Change is Continuing: A Better Combined Sewer Model Realizes Capital Savings
<b>ALT</b>			Overcoming Design Challenges of a Deep Pump Station

## SESSIONS AT A GLANCE

Session Number	Session Title	Time	CE Credit Total/Type	Room
<b>Tuesday, June 4<sup>th</sup></b>				
<b>Workshop A</b>	Best Sewer Rehabilitation Practices for Mitigating I/I	8:30am-5:00pm	<b>0.6 CEUs</b>	<b>103/104</b>
<b>Workshop B</b>	Infiltration and Inflow Modeling for Collection System Utilities	8:30am-5:00pm	<b>0.6 CEUs</b>	<b>107/108</b>
<b>Wednesday, June 5<sup>th</sup></b>				
<b>OGS</b>	Opening General Session	8:30am-10:00pm	<b>1.5 GCHs</b>	<b>103/104</b>
<b>Mobile Session I</b>	Mobile Session - Technical	10:30am-11:50am	<b>1.25 GCHs</b>	<b>Hall D</b>
<b>Session 1</b>	Tunnels	10:45am-11:45am	<b>1.0 PDHs</b>	<b>103/104</b>
<b>Session 2</b>	Trenchless	1:30pm-4:45pm	<b>2.5 PDHs</b>	<b>103/104</b>
<b>Session 3</b>	Combined Sewer Overflows/Sanitary Sewer Overflows	1:30pm-4:45pm	<b>2.5 PDHs</b>	<b>107/108</b>
<b>Session 4</b>	Potpourri	1:30pm-4:45pm	<b>2.5 PDHs</b>	<b>109/110</b>
<b>Thursday, June 6<sup>th</sup></b>				
<b>Session 5</b>	System Analysis	8:30am-11:45am	<b>2.5 PDHs</b>	<b>103/104</b>
<b>Session 6</b>	Delivering Products	8:30am-11:45am	<b>2.5 PDHs</b>	<b>107/108</b>
<b>Session 7</b>	Condition Assessment	8:30am-11:45am	<b>2.5 PDHs</b>	<b>109/110</b>
<b>Mobile Session II</b>	Mobile Session – Emerging Topics & Technologies	12:30pm-1:30pm	<b>1.0 GCHs</b>	<b>Hall D</b>
<b>Tour 1</b>	Belmont AWTP and Juan Soloman Park Lift Station	1:00pm-4:00pm	<b>3.0 GCHs</b>	<b>Registration</b>
<b>Session 8</b>	Forcemain	1:30pm-3:00pm	<b>1.5 PDHs</b>	<b>103/104</b>
<b>Session 9</b>	Local I	1:30pm-3:00pm	<b>1.5 PDHs</b>	<b>107/108</b>
<b>Session 10</b>	Operation & Maintenance	1:30pm-3:00pm	<b>1.5 PDHs</b>	<b>109/110</b>
<b>Friday, June 7<sup>th</sup></b>				
<b>Session 11</b>	Asset Management	8:30am-11:45am	<b>3.0 PDHs</b>	<b>103/104</b>
<b>Session 12</b>	Inflow and Infiltration	8:30am-11:45am	<b>3.0 PDHs</b>	<b>107/108</b>
<b>Session 13</b>	Local II	8:30am-11:45am	<b>3.0 PDHs</b>	<b>109/110</b>
<b>Tour 2</b>	DigIndy Deep Rock Tunnel	8:30am-11:30am	<b>2.0 GCHs</b>	<b>Registration</b>

## THE EXHIBITION

### Exhibition Schedule

#### Wednesday, June 5

<b>10:00 AM – 6:15 PM</b>	<b>Exhibit Hall Open</b>
10:00 AM – 10:45 AM	Networking Break
10:30 AM – 11:50 AM	Mobile Session 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, June 6

<b>10:00 AM – 3:45 PM</b>	<b>Exhibit Hall Open</b>
10:00 AM – 10:45 AM	Networking Break
11:45 AM – 1:30 PM	Networking Luncheon
12:30 PM – 1:30 PM	Mobile Session II – Emerging Topics and Technologies
3:00 PM – 3:45 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.*

## EXHIBITOR DIRECTORY

As of 5/20/2019

### **502 Equipment / Visual Imaging Resources..... Booth 110**

[www.visualimagingresources.com/502-equipment](http://www.visualimagingresources.com/502-equipment)

Phone: 502-536-9125

*PO Box 7304*

*Louisville, KY 40257*

Distributor of premium, new and used municipal and industrial equipment based in Louisville, Kentucky.

### **ADS Environmental Services..... Booth 219**

[www.adsenv.com](http://www.adsenv.com)

Phone: 708-341-9701

*340 The Bridge St, Ste 204*

*Huntsville, AL 35806*

Visit ADS to learn about TRUSTED SOLUTIONS for critical wastewater problems, including SSOs, optimized sewer cleaning, CSOs, inflow and infiltration, hydraulic modeling, accurate sewer billing, and sewer capacity management.

### **Advanced BioCatalytics Corp..... Booth 112**

[www.abiocat.com](http://www.abiocat.com)

Phone: 949-442-0880 x18

*18010 Skypark Cir, Ste 130*

*Irvine, CA 92614*

Advanced BioCatalytics focuses the discovery of its Protein Surfactant Complex™ based chemistry for chemical and biological treatment of wastewater for FOG, biofilm, odor and H<sub>2</sub>S while maintaining ecofriendly and safe chemistry.

### **Advanced Drainage Systems, Inc ..... Booth 327**

[www.ads-pipe.com](http://www.ads-pipe.com)

Phone: 317-417-0385

*288 Lafayette St*

*London, OH 43140*

Advanced Drainage Systems, Inc. manufactures high performance thermoplastic corrugated pipe, providing a comprehensive suite of water management products and drainage solutions for use in the construction and infrastructure marketplace.

## EXHIBITOR DIRECTORY

### **AP/M Permaform/ConShield Technologies ..... Booth 330**

[www.permaform.net](http://www.permaform.net)

Phone: 800-662-6465

*6250 NW Beaver Dr, Ste 1*

*Johnston, IA 50131*

AP/M Permaform® CentriPipe® and Permacast® systems enable trenchless repair of failing manholes and pipes. CONmicSHIELD® liquid additive prevents MIC in concrete sanitary sewers, while Crystal-X® liquid additive provides waterproofing for concrete.

### **Aqseptence Group, Inc. .... Booth 215**

[www.aqseptence.com](http://www.aqseptence.com)

Phone: 813-855-6297

*3180 Curlew Rd, Unit 207*

*Oldsmar, FL 34677*

AIRVAC –Aqseptence Group, Inc. manufactures vacuum valves, valve pits and station equipment. We assist with the design, construction and operation of complete systems with 600+ systems worldwide.

### **Avanti International..... Booth 118**

[www.avantigrout.com](http://www.avantigrout.com)

Phone: 800-877-2570

*822 Bay Star Blvd*

*Webster, TX 77598*

Avanti International is the only full-service producer and most experienced supplier of high-quality chemical and cement grouts. Our products provide contractors, municipalities, and geotechnical engineers with cost-effective technology to stop leaks, stabilize soils, and control groundwater permanently.

### **BLD Services, LLC ..... Booth 308**

[www.bldllc.net](http://www.bldllc.net)

Phone: 770-317-1600

*2424 Tyler St*

*Kenner, LA 70062*

BLD offers a range of services to include all forms of heavy and civil engineering construction for large projects, while also providing a diverse range of specialty services including trenchless rehabilitation of pipes and manholes.

## EXHIBITOR DIRECTORY

### **Civica Infrastructure, Inc ..... Booth 315**

[www.civi.ca](http://www.civi.ca)

Phone: 905-417-9792

*3-330 Rodinea Rd, Unit 3*

*Vaughan, ON L6A 4P5*

*Canada*

Civica provides field-tested-and-proven, innovative data management tools and expertly managed services which are designed to address all aspects of wastewater resource management.

### **CSL Services, Inc ..... Booth 325**

<https://cslservices.com>

Phone: 609-332-6493

*7905 Browning Rd, Ste 316*

*Merchantville, NJ 08109*

CSL Services is an engineering field services company that specializes in wastewater collection systems flow monitoring and condition assessment. We offer our services primarily to municipal utilities and engineering firms.

### **Compliance EnviroSystems, LLC ..... Booth 213**

[www.ces-sses.com](http://www.ces-sses.com)

Phone: 800-675-9409

*1401 Seaboard Dr*

*Baton Rouge, LA 70810*

Compliance EnviroSystems, LLC was incorporated in 1994 as a full service professional sewer evaluation firm. Our core mission is to provide a complete range of sanitary and storm sewer system evaluation services.

### **Contech Engineered Solutions ..... Booth 202**

[www.ContechES.com](http://www.ContechES.com)

Phone: 800-338-1122

*9025 Centre Pointe Dr, Ste 400*

*West Chester, OH 45069*

Contech Engineered Solutions LLC provides site solutions for the civil engineering industry. Contech's portfolio includes bridges, drainage, erosion control, retaining wall, sanitary, stormwater and wastewater treatment products.

## EXHIBITOR DIRECTORY

### **Cretex Specialty Products..... Booth 101**

[www.cretexseals.com](http://www.cretexseals.com)

Phone: 800-345-3764

*N25 W23790 Commerce Cir, Ste E*

*Waukesha, WI 53188*

Leading manufacturer of mechanical internal and external manhole frame-chimney seals, including PRO-RING™, a lightweight grade adjustment system used for manholes, catch basins and underground utility structures.

### **DHI Water & Environment, Inc ..... Booth 208**

[www.dhigroup.com](http://www.dhigroup.com)

Phone: 323-828-2030

*141 Union Blvd, Ste 250*

*Lakewood, CO 80228*

DHI's solutions combine state-of-the art technology (MIKE Powered by DHI software) and time-tested methodologies to ensure that our clients' specific requirements and challenges are met.

### **Do2e Waste Water Treatment, LLC ..... Booth 331**

<https://do2e.com>

Phone: 251-937-8200

*36220 State Hwy 59*

*Stapleton, AL 36578*

DO2E specializes in advanced FOG control, aeration, odor/H2S control, wastewater pretreatment, algae control, on site sludge digestion, lagoon aeration, collection systems/lift station solutions, and chemical alternatives.



### **Doetsch Environmental Services, Inc ..... Booth 225**

[www.doetschenvironmental.com](http://www.doetschenvironmental.com)

Phone: 586-755-2090

*21221 Mullin Ave*

*Warren, MI 48089*

We are a full service environmental company specializing in large diameter sewer cleaning and sewer inspection.



## EXHIBITOR DIRECTORY

### **Duke's Root Control, Inc ..... Booth 305**

[www.dukes.com](http://www.dukes.com)

Phone: 315-472-4781

*1020 Hiawatha Blvd W*

*Syracuse, NY 13204*

Duke's Root Control, Inc. has sewer root control down to a science. We prevent sanitary sewer overflows (SSOs) before they cause major havoc to systems and communities.

### **Environment One Corporation..... Booth 221**

[www.eone.com](http://www.eone.com)

Phone: 518-344-9802

*2773 Balltown Rd*

*Niskayuna, NY 12309*

Are you dealing with failing septic tanks? Is I&I from your existing sewer system eating up budgets? ALL-TERRAIN SEWER low pressure systems from E/One are significantly more affordable than conventional gravity sewers and safer than septic systems.

### **Envirosight..... Booth 206**

[www.pipelinert.com](http://www.pipelinert.com)

Phone: 412-216-8701

*111-B3 Canfield Ave*

*Randolph, NJ 07869*

Specializing in underground pipe and confined space inspection, Envirosight is a full-service manufacturer of manhole cameras, zoom survey cameras, robotic crawlers, push cameras, video nozzles, asset management software, and inspection vehicles.

### **Evoqua Water Technologies, LLC ..... Booth 309**

[www.evoqua.com](http://www.evoqua.com)

Phone: 506-452-7307

*370 Wilsey Rd*

*Fredericton, NB E3B 6E9*

*Canada*

Technologies for primary and secondary clarification, biological treatment, ultrafiltration, tertiary filtration, anaerobic digestion, odor control, UV, and disinfection. Brands: Envirex®, MEMCOR®, Wallace & Tiernan®, Neptune Benson®, Jet Tech, DAVCO™, RJ Environmental.

## EXHIBITOR DIRECTORY

### **FloWav, Inc ..... Booth 303**

www.flowwav.com

Phone: 423-394-3735

1152 Mae St

Hummelstown, PA 17036

FloWav offers the highest quality flow monitoring and measurement products available to provide our customers with the most accurate data possible. We offer adaptable velocity sensors that have been lab and field tested for reliability and accuracy.

### **Flow-Tronic S.A. .... Booth 127**

www.flow-tronic.com

Phone: 867-445-6432

Chemin des Tilleuls 32

Welkenraedt, B-4840

Belgium

FLOW-TRONIC is internationally recognized as the leading manufacturer of innovative and accurate Smart flow monitoring solutions for both open channel (wastewater and surface water) and full pipe (drinking and raw water).

### **FlowWorks ..... Booth 226**

www.flowworks.com

Phone: 206-496-2574

101 4th Ave, #3200

Seattle, WA 98154

FlowWorks, the industry's leading provider of cloud-based data management, is featuring our new Infinitii line of Machine Learning based solutions that automate I&I analysis and forecast combined sewer overflows.

### **Grande Water Management Systems..... Booth 232**

www.grandeinc.com

Phone: 855-315-1115

3950 Montee Masson

Laval, QC H7B 1C4

Canada

Grande Water Management Systems specializes in stormwater management, wastewater management and CSO abatement. We provide engineered systems for tank and sewer flushing, overflow control, overflow screening and regulation.

## EXHIBITOR DIRECTORY

### **Granite Inliner ..... Booth 324**

[www.inliner.com](http://www.inliner.com)

Phone: 502-585-1241

*4520 N State Rd 37*

*Orleans, IN 47452*

Granite Inliner is a leader in the pipeline rehabilitation industry specializing in water, steam, and UV cure CIPP.

### **Hach..... Booth 231**

[www.hach.com](http://www.hach.com)

Phone: 800-368-2723

*5600 Lindbergh Dr*

*Loveland, CO 80550*

Hach provides innovations to support our customers. We give customers confidence in their water analysis by delivering expert answers, outstanding support, and reliable, easy-to-use solutions. Flow meter innovation, reliability, and accuracy are the hallmark of our products.

### **Hobas Pipe USA ..... Booth 109**

[www.hobaspipe.com](http://www.hobaspipe.com)

Phone: 800-856-7473

*1413 E Richey Rd*

*Houston, TX 77073*

Centrifugally cast, fiber-reinforced, polymer mortar HOBAS pipe is inherently corrosion resistant. Key applications are sanitary and storm sewers, other corrosive environments and potable water. Pipe diameters range from 18 to 126 inches.

### **Huber ..... Booth 332**

[www.huber-technology.com](http://www.huber-technology.com)

Phone: 704-990-2053

*9735 Northcross Center Ct, Ste A*

*Huntersville, NC 28078*

HUBER Technology, an expert in liquid/solid separation technologies, with a line of screening, grit and sludge handling processes. Serving municipal and industrial wastewater treatment markets with precision fabricated stainless steel equipment.

## EXHIBITOR DIRECTORY

### **Hydromax USA ..... Booth 320**

[www.hydromaxusa.com](http://www.hydromaxusa.com)

Phone: 757-353-1521

2501 S Kentucky Ave

Evansville, IN 47714

Hydromax USA is a professional services firm that transforms infrastructure data into actionable business intelligence for those maintaining the country's natural gas distribution, water distribution and wastewater collection utilities.

### **IER Environmental Services, Inc. .... Booth 100**

[www.gener-ox.com](http://www.gener-ox.com)

Phone: 509-885-3992

PO Box 18978

Spokane, WA 99228

IER Environmental Services is a supplier of (a) specialized wastewater treatment equipment designed for liquid/solids separation; (b) specialty chemical products; and (c) innovative chemical-free odor control technologies.



**InfoSense, Inc.**  
Innovating Acoustic Inspection Technology™

### **InfoSense, Inc. .... Booth 301**

[www.infosense.com](http://www.infosense.com)

Phone: 803-230-9134

8116 S Tryon St, Ste B3-203

Charlotte, NC 28273

Stop cleaning clean pipe and focus collections resources with the Sewer Line Rapid Assessment Tool, or SL-RAT. Use acoustic technology to quickly screen sewer pipes for blockages. Assess 10-20,000ft per day. Low cost, no flow contact, GPS enabled.

### **Innovyze ..... Booth 121**

[www.innovyze.com](http://www.innovyze.com)

Phone: 626-568-6868

605 E Huntington Dr, Ste 205

Monrovia, CA 91016

World leader in hydraulic and water quality water, sewer, storm water, wet infrastructure rehabilitation prioritization, SCADA integration, and real-time analyses.

## EXHIBITOR DIRECTORY

### **IPEX USA, LLC..... Booth 131**

www.ipexna.com

Phone: 812-470-0306

1425 N Service Rd E, Unit 3

Oakville, ON L6H 1A7

Canada

IPEX provides unsurpassed product engineering expertise to meet the demanding requirements of today's complex municipal pressure and gravity applications.

### **ITpipes..... Booth 233**

www.itpipes.com

Phone: 970-209-7374

4921 Alexander Blvd NE, Ste B

Albuquerque, NM 87107

Turn your pipe inspections into actionable intelligence! OEM hardware, inspection type, and compliance system neutral-ITpipes field collection tools, streamlined data mgt and powerful reporting w/dynamic mapping take you from proactive to predictive!

### **Kanaflex Corp USA ..... Booth 122**

www.landiainc.com

Phone: 224-545-2012

800 Woodlands Pkwy

Vernon Hills, IL 60061

Kanaflex manufactures steel reinforced polyethylene pipe (SRPE) serving the storm, sanitary, and drainage markets in North America. US facilities and headquarters are located in Vernon Hills, IL. Available in 12-72" diameters.

### **Landia, Inc..... Booth 311**

www.landiainc.com

Phone: 919-466-0603

111 Triangle Trade Dr

Cary, NC 27513

Landia offers custom-engineered solutions for pumping and mixing of sludge and sewage. Visit Landia's booth and learn more about the manufacturer of the world's first chopper pump, and experience Landia's award-winning customer service.

## EXHIBITOR DIRECTORY

### **LF Manufacturing ..... Booth 120**

[www.lfm-frp.com](http://www.lfm-frp.com)

Phone: 800-237-5791

*5528 E Hwy 290*

*Giddings, TX 78942*

Established in 1974, LF Manufacturing is the leading manufacturer of fiberglass-reinforced manholes and wetwells. Manholes and wetwells are available in diameters up to 16-ft and depths in excess of 50-ft.

### **LMK Technologies ..... Booth 119**

[www.lmktechnologies.com](http://www.lmktechnologies.com)

Phone: 815-433-1275

*1779 Chessie Ln*

*Ottawa, IL 61350*

LMK Technologies has been a leader in trenchless Cured-In-Place-Pipe lining since 1993. LMK is recognized by many municipalities and engineering firms as the innovative leader for the trenchless renewal of sewer laterals, mainlines and manholes.

### **Logiball, Inc ..... Booth 218**

[www.logiball.com/en](http://www.logiball.com/en)

Phone: 800-246-5988

*440 Papin St*

*Quebec, QC G1P 3T9*

*Canada*

Equipment for the maintenance and trenchless rehabilitation of sewers. Complete line of inflatable pipe plugs and sleeve installers for cipp sectional liners and mechanical locking sleeves.

### **Lucity, Inc..... Booth 323**

[www.lucity.com](http://www.lucity.com)

Phone: 800-492-2468

*10561 Barkley, Ste 100*

*Overland Park, KS 66212*

Lucity, Inc., a CentralSquare company, develops and supports LucityAM, a comprehensive, flexible and scalable enterprise asset and maintenance management solution for public works and utility departments.

## EXHIBITOR DIRECTORY

### **Milliken Infrastructure Solutions, LLC ..... Booth 314**

<https://infrastructure.milliken.com>

Phone: 855-655-6750

*920 Milliken Rd*

*Spartanburg, SC 29303*

Milliken Infrastructure helps strengthen, repair, protect and rehabilitate existing assets – from pipes underground to buildings in the sky. See how our proven materials and systems can help solve your toughest infrastructure challenges.

### **MTA Messtechnik GmbH ..... Booth 125**

[www.mta-messtechnik.at](http://www.mta-messtechnik.at)

Phone: 43 4212 71491

*Handelsstrasse 14-16*

*St Veit An Der Glan, KAE 9300*

*Austria*

Leader in technology for specialized problems in the water and wastewater industry: reviewing and rating of water supply and wastewater disposal networks, evaluation of systems, and profile measurement for operating companies of wastewater disposal systems and waste dumps.

### **Nezat Training and Consulting, Inc ..... Booth 333**

[www.nezat.com](http://www.nezat.com)

Phone: 281-788-5221

*24991 Hayden Rd*

*Splendora, TX 77372*

Supplies training and consultation services to contractors and municipalities involved in sewer cleaning, inspection, and rehabilitation processes.

### **OBIC, LLC ..... Booth 318**

[www.obicproducts.com](http://www.obicproducts.com)

Phone: 419-408-5079

*01116 County Rd 17*

*Bryan, OH 43506*

OBIC, LLC manufactures and installs proprietary polymer lining systems for wastewater structures, potable water structures, and for corrugated and concrete drainage culverts.

## EXHIBITOR DIRECTORY

### **Orenco Systems, Inc..... Booth 103**

[www.orenco.com](http://www.orenco.com)

Phone: 800-348-9843

814 Airway Ave

Sutherlin, OR 97479

Orenco Systems, Inc. has researched, designed, and manufactured innovative onsite and decentralized wastewater collection and treatment technologies.

### **Pipemedic By Quakewrap ..... Booth 116**

<https://pipemedic.com>

Phone: 866-782-5397

6840 S Tucson Blvd

Tucson, AZ 85756

We offer turnkey solutions for repair of large diameter Prestressed Concrete Cylinder Pipes (PCCP) with carbon Fiber Reinforced Polymer (FRP) products which include sealed engineering drawings, materials, and installation by certified contractors

### **Process Wastewater Technologies, Inc..... Booth 214**

[www.pwtech.us](http://www.pwtech.us)

Phone: 410-238-7977

9004 Yellow Brick Rd, Ste D

Rosedale, MD 21237

Provider of the world's leading range of screening technologies for CSO/SSO treatment, unique biological wastewater treatment processes, and the Volute Dewatering Press sludge dewatering system.

### **R&R Visual, Inc..... Booth 227**

[www.seepipe.com](http://www.seepipe.com)

Phone: 800-776-5653

1828 W Olson Rd

Rochester, IN 46975

R&R Visual provides pipeline inspection services including video, sonar, laser, lateral launching and 360(deg) scanning.

### **RapidView IBAK North America ..... Booth 302**

[www.rapidview.com](http://www.rapidview.com)

Phone: 800-656-4225

1828 W Olson Rd

Rochester, IN 46975

Provides high quality pipeline inspection and rehabilitation equipment including the revolutionary new PANORAMO 360° pipeline and manhole scanning systems.



## EXHIBITOR DIRECTORY

### **RedZone Robotics, Inc ..... Booth 317**

[www.redzone.com](http://www.redzone.com)

Phone: 412-476-8980 x292

91 43rd St

Pittsburgh, PA 15201

As a leader and innovator in advanced pipeline assessment, RedZone Robotics pioneered inspection for wastewater collection systems. Using proprietary data acquisition robotics and industry leading ICOM software, RedZone helps owners and engineers get all of the information they need and make it useful.

### **RELINER / Duran, Inc ..... Booth 312**

[www.reliner.com](http://www.reliner.com)

Phone: 800-508-6001

9 Matthews Dr, Unit A1/A2

East Haddam, CT 06423

RELINER® / Duran Inc. manufactures simple, cost effective, durable products for use in the wastewater and construction industries. Our product lines include Inside Drop Bowls, Stainless Steel Pipe Supports and Modular Manhole Invert Channels.

### **REXA ..... Booth 230**

[www.rexa.com](http://www.rexa.com)

Phone: 617-694-9797

4 Manley St

West Bridgewater, MA 02379

Our industrial grade linear and rotary actuators are ideal for any application requiring precise positioning, stiff control, and high reliability with minimal maintenance.

### **Rhomar Industries, Inc. .... Booth 115**

[www.rhomar.com](http://www.rhomar.com)

Phone: 800-688-6221

2107 E Rockhurst

Springfield, MO 65802

Dedicated to the innovation of environmentally responsible maintenance solutions and creative solutions for the frustrating problems that plague operation and maintenance departments.

## EXHIBITOR DIRECTORY

### **RJN Group, Inc ..... Booth 224**

[www.rjn.com](http://www.rjn.com)

Phone: 954-415-3742

200 W Front St

Wheaton, IL 60187

RJN Group is a professional engineering consulting firm focused on improving underground municipal sewer, stormwater, and water infrastructure.

### **Robinson Pipe Cleaning Co ..... Booth 124**

<https://robinsonpipe.com>

Phone: 412-921-2100

2656 Idlewood Rd

Pittsburgh, PA 15205

Offers full length digital CCTV inspection, sewer cleaning, sonar inspection, chemical grouting, lateral TV inspection, lateral grouting, manhole rehabilitation, sectional CIPP liner repairs, laser ring pipe profiling, chemical root treatment.

### **Sewer History Exhibit ..... Booth 126**

[www.sewerhistory.org](http://www.sewerhistory.org)

Phone: 410-442-7473

2470 Longstone Ln, Ste M

Marriottsville, MD 21104

NASSCO's Sewer History Exhibit has artifacts related to sewage conveyance systems dating back to about 3500 BCE through the 1930s. It demonstrates the evolution of the assessment, maintenance and rehabilitation of underground infrastructure.

### **Smartcover Systems..... Booth 300**

[www.smartcoversystems.com](http://www.smartcoversystems.com)

Phone: 760-291-1980

2067 Wineridge Pl, Ste E

Escondido, CA 92029

SmartCover Systems provides a real-time wireless communication solution that monitors sewer system flows to uncover and alert agency staff to potential overflows and provide real-time condition assessment of pipelines to identify problems.

## EXHIBITOR DIRECTORY

### **Sunbelt Rentals ..... Booth 133**

[www.sunbeltrentals.com](http://www.sunbeltrentals.com)

Phone: 678-725-2553

*2341 Deerfield Dr*

*Fort Mill, SC 29715*

Sunbelt Rentals Pump and Power Services offers a wide selection of pumps, including diesel and electric models from 4" to 24". Our dedicated engineers and industry experts will work with you to find the right equipment rental solutions for your job.

### **Teledyne ISCO ..... Booth 212**

[www.teledyneisco.com](http://www.teledyneisco.com)

Phone: 800-228-4373

*4700 Superior St*

*Lincoln, NE 68504*

Teledyne Isco builds reliable in-plant and field-portable instruments for water quality and pollution monitoring. Products include automatic samplers, open-channel flowmeters, data communication packages, and analysis software.

### **Trimble Water ..... Booth 207**

[www.trimblewater.com](http://www.trimblewater.com)

Phone: 888-835-6437

*830 Canning Pkwy*

*Victor, NY 14564*

Trimble Water with the Telog product brand provides integrated solutions and tools for smart water monitoring and management enabling utility automation that results in increased productivity, regulatory compliance and improved customer service/response.

### **Trumbull MFG ..... Booth 220**

[www.trumbull-mfg.com](http://www.trumbull-mfg.com)

Phone: 724-699-8776

*3850 Hendricks Rd*

*Youngstown, OH 44515*

Trumbull MFG, located in Ohio, manufactures polymer manhole lids and frames which are lightweight, traffic load rated, non-corrosive, and radio transparent. We also manufacture tools for use in water and wastewater industries.

## EXHIBITOR DIRECTORY

### **Uni-Bell PVC Pipe Association ..... Booth 307**

[www.PVCPA.org](http://www.PVCPA.org)

Phone: 972-243-3902

*2711 Lyndon B Johnson Fwy, #1000*

*Dallas, TX 75234*

Uni-Bell PVC Pipe Association is the technical trade association for the manufacturers of gasketed PVC pipe. Uni-Bell PVC Pipe Association staff will be on hand to answer PVC pipe questions.

### **USP Technologies..... Booth 319**

[www.usptechnologies.com](http://www.usptechnologies.com)

Phone: 360-303-5782

*1375 Peachtree St NE, Ste 300 N*

*Atlanta, GA 30309*

USP Technologies offers full-service chemical-based solutions to solve pain points for our municipal wastewater customers including cost-effective odor and corrosion control technologies for lift stations, force mains and gravity lines.

### **Utility Systems, Science & Software, Inc..... Booth 113**

[www.uscubed.com](http://www.uscubed.com)

Phone: 714-542-1004

*601 N Parkcenter Dr, Ste 209*

*Santa Ana, CA 92705*

Utility Systems Science & Software (US3) is a leading Sewer Flow Monitoring company in the USA, providing both temporary and permanent sewer flow monitoring with a 95% uptime guaranteed. Includes all Hach instrumentation, manpower and reporting.

### **Vaughan Company, Inc ..... Booth 201**

[www.chopperpumps.com](http://www.chopperpumps.com)

Phone: 360-249-4042

*364 Monte Elma Rd*

*Montesano, WA 98563*

Vaughan chopper pumps and Triton screw centrifugal pumps are available in several configurations and sizes to suit most needs for agricultural, municipal and industrial processing applications. Durability and performance are critical in any application.

## EXHIBITOR DIRECTORY

### **VEGA Americas, Inc..... Booth 326**

www.vega.com

Phone: 513-272-4030

4170 Rosslyn Dr

Cincinnati, OH 45209

VEGA is a global manufacturer of sensors for measuring level, point level, pressure as well as devices and software for integrating them into process control systems.

### **Vieux & Associates, Inc..... Booth 200**

www.vieuxinc.com

Phone: 405-325-1818

301 DL Boren Blvd, Ste 3050

Norman, OK 73072

Vieux & Associates, Inc. leads the industry in rain gauge adjusted radar rainfall services, rain gauge network evaluation, radar-based design storm development for municipal sewer districts and regional water management authorities.

### **WinCan, LLC..... Booth 209**

www.wincan.com

Phone: 412-335-8271

300 Cedar Ridge Dr, Ste 308

Pittsburgh, PA 15205

WinCan is the industry's most preferred sewer inspection software, with more than 8,500 licenses worldwide. WinCan works with all brands of sewer inspection technology—including crawlers, zoom cameras and push cameras.

### **WSG & Solutions, Inc ..... Booth 306**

www.wsgandsolutions.com

Phone: 610-316-1443

160 Commerce Dr, Ste 100

Montgomeryville, PA 18936

WSG & Solutions is the market leader in the supply of municipal and industrial wastewater and CSO products for screening, grit removal, and tank flushing applications. We are the exclusive North American CSO distributor of the CSO Group and Biogest.

## EXHIBITOR DIRECTORY

**Xylem, Inc..... Booth 107**

[www.xylem.com](http://www.xylem.com)

Phone: 314-238-7383

*8920 State Route 108, Ste D*

*Columbia, MD 21045*

Xylem is a leading global water technology company committed to "solving water" by creating innovative and smart technology solutions to meet the world's water and wastewater needs.

**ZCL | Xerxes..... Booth 114**

[www.zcl.com](http://www.zcl.com)

Phone: 952-887-1890

*7901 Xerxes Ave S*

*Minneapolis, MN 55431*

Xerxes Corporation is a manufacturer of underground and aboveground fiberglass storage tanks for water and wastewater applications including onsite, potable/non-potable, landfill leachate and chemicals, oil/water separators, grease interceptors and wet wells.

# EXHIBITION FLOOR PLAN

## LUNCHEON

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106	108	110	112	114	116	118	120	122	124
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BREAK STATION

BREAK STATION

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Trimble WinCan, LLC	WISG & BLD SVN
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Solubris	Solubris

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202	Radview Back North
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Quinn	Quinn
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Quinn	Quinn

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308	310
Un-Ball PVC Pipe	Boqua Water Tech LLC

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Flowview, Inc.	Flowview, Inc.
302	304
Flowview, Inc.	Flowview, Inc.

ENTRANCE

## PRESENTER AND MODERATOR DIRECTORY

**Shirish Agarwal**  
Jacobs **Speaker**  
**Session 05**

**Nikolaos Apsilidis**  
Greeley and Hansen  
**Speaker Session 03**

**Britt Babcock** Avanti  
International **Speaker**  
**WKSP A**

**Paul Batman** Arcadis  
**Alternate Session 07**

**Theodore Bennett**  
Jones & Henry  
Engineers, Ltd.  
**Speaker Session 06**

**David Bingham**  
AECOM **Speaker**  
**Session 04**

**Amy Bley** RJN Group,  
Inc. **Speaker Session**  
**08**

**Robert Buss** Carollo  
Engineers, Inc.  
**Speaker Session 11**

**Jeremy Cawley** City of  
Columbus DOD  
**Speaker Session 02**

**Carl Chan** Stantec  
**Moderator Session 01,**  
**12**

**Tammy Cleys** Carollo  
Engineers **Speaker**  
**Session 12**

**Jeffrey Coffey** DLZ  
Corp **Speaker Session**  
**01**

**Brandon Cooper**  
Greeley and Hansen  
**Speaker Session 06,**  
**07**

**Brian Culich** AP/M  
Permaform **Speaker**  
**Session 02**

**Donald Daniel** Rock  
Creek Public Sewer  
Dist **Speaker Session**  
**04**

**Teddy Deahl** Bowen  
**Speaker Session 04,**  
**13**

**Ted Deboda** Baltimore  
County **Speaker**  
**WKSP A**

**Javier Dennis** LA  
Sanitation **Speaker**  
**WKSP B**

**Nathan Dickman** DLZ  
**Speaker Session 01**

**Christopher**  
**Dinsmore** EBMUD  
**Speaker Session 12**

**Michael Ellerbrock**  
Strand Associates, Inc.  
**Speaker Session 03**

**Kevin Enfinger** ADS  
Environmental  
Services **Speaker**  
**WKSP B**

**Catherine Findley**  
Wade Trim **Speaker**  
**Session 06**

**Javier Homero Flores**  
**Cervantes** King  
County Dept Of Nat'l  
Res & Parks **Speaker**  
**WKSP B**

**Amanda Foote**  
AECOM **Speaker**  
**Session 02**

**William Fussner**  
Northeast Ohio  
Regional Sewer District  
**Speaker WKSP B**

**Michael Georgalas**  
Stantec Consulting  
Services Inc. **Speaker**  
**Session 08**

**Sara Goebel** Burns  
and McDonnell  
**Speaker Session 12**

**Walter Graf** The Water  
Research Foundation  
**Speaker WKSP A,**  
**Moderator Session**  
**03, 10**

**Jeffery Griffiths**  
Hydromax USA  
**Moderator Session 02**

**Ahmad Habibian** CDM  
Smith **Speaker**  
**Alternate Session 04**

**Susan Hamilton** City  
of Richmond Virginia  
DPU **Speaker Session**  
**07**

**Eric Harold** Carollo  
Engineers **Speaker**  
**Session 11**

**Olivia Hawbaker**  
Citizens Energy Group  
**Speaker Session 05**

**Tim Healy** Greeley &  
Hansen **Speaker**  
**Session 04**

**Greg Heath** AECOM  
**Moderator Session**  
**05, 11**

**Christine Heinrich-**  
**Josties** City of Los  
Angeles, Bureau of  
Sanitation **Speaker**  
**Session 04, Alternate**  
**Session 05**

**Patrick Henthorn**  
Xylem **Speaker**  
**Session 13**

**Phillip Hubbard** HRSD  
**Speaker WKSP A**

**Shawn Ireland** Stantec  
**Speaker Session 01**



## PRESENTER AND MODERATOR DIRECTORY

**Stephen Jeffus** RJN  
Group Inc **Speaker**  
**Session 07**

**Jeff Jones** CCWA  
**Alternate Session 03**

**David Jurgens** City of  
Fayetteville **Speaker**  
**WKSP A**

**Andrew Kaufman**  
Metropolitan Sewer  
District of St. Louis  
**Speaker Session 04**

**Maria Krug**  
**Comuniello** Xylem  
**Speaker Session 05**

**Angel Leon** City of  
Laredo **Speaker**  
**Session 02**

**Kyle Logue** Brown  
and Caldwell **Speaker**  
**WKSP B**

**Tim Loper** Carollo  
Engineers **Speaker**  
**Session 05**

**Matthew Malone**  
Civica Infrastructure  
Inc **Speaker Session**  
**12**

**John Matthews**  
Louisiana Tech  
University **Speaker**  
**WKSP A**

**Jane McLamarrah**  
Stantec Consulting  
Services **Speaker**  
**Session 10,**  
**Moderator Session 13**

**Jun Meng** Greeley and  
Hansen **Speaker**  
**Session 03**

**Katherine Merkle**  
Donohue & Associates  
**Speaker Session 13**

**Steven Meyer** Bowen,  
Collins & Associates  
**Speaker Session 07**

**Kate Mignone**  
AECOM **Speaker**  
**Session 03**

**Priyanka Mohandoss**  
**Speaker WKSP B**

**Brittany Montgomery**  
Town of Clarksville  
**Speaker Session 13**

**Catherine Morley** RJN  
Group Inc **Speaker**  
**Session 12**

**Stephen Motley** City  
Of Virginia Beach Dept  
Public Utilities **Speaker**  
**WKSP B**

**Omar Muhammad**  
WSSC **Speaker WKSP**  
**A**

**Dan Murray**  
Environmental  
Protection Agency  
**Moderator Session**  
**06, 08**

**Joe Nagy** Citizens  
Energy Group  
**Alternate Session 09**

**Rusty Nezat** Jigawon,  
Inc. **Speaker Session**  
**10**

**Jeremy Nitka** Arcadis  
**Moderator Session 13**

**Quinton Nottingham**  
City of Richmond  
Virginia DPU **Speaker**  
**Session 06**

**Robert O'Dette** State  
of Tennessee  
**Alternate Session 12**

**Sean O'Rourke** Hazen  
and Sawyer **Speaker**  
**Session 07**

**Cheryl Paulin** ADS  
Environmental  
Services **Moderator**  
**Session 07, 12**

**Matthew Pierce** Black  
& Veatch **Speaker**  
**Session 09, Alternate**  
**Session 13**

**Tad Powell** Hazen and  
Sawyer **Speaker**  
**Session 02**

**Christopher Ranck**  
Arcadis **Alternate**  
**Session 13**

**A Retana** Brown and  
Caldwell **Speaker**  
**WKSP B**

**Wendy Reust** City of  
Fort Wayne **Speaker**  
**Session 09**

**Bryan Rogne** Brown  
and Caldwell **Speaker**  
**Session 06**

**Stephen Rowe**  
Citizens Energy Group  
**Alternate Session 13**

**Anastasia Rudenko**  
GHD **Speaker**  
**Session 10**

**Karen Saavedra**  
American  
Structurepoint **Speaker**  
**Session 13**

**Farshad Salehzadeh**  
Region of Peel  
**Speaker Session 12**

**Jeffrey Scarano**  
HRSD **Speaker**  
**Session 11**

**Zach Schortgen** City  
of Fort Wayne  
**Alternate Session 13**

## PRESENTER AND MODERATOR DIRECTORY

**Alison Schreiber**  
Northeast Ohio  
Regional Sewer District  
**Speaker Session 06**

**Dave Servidio** Mott  
MacDonald **Moderator**  
**Session 01, 03**

**Firat Sever**  
QuakeWrap, Inc.  
**Speaker WKSP A**

**Kevin Slaven**  
ARCADIS **Speaker**  
**Session 11**

**Donald Smith** Town of  
Cary **Speaker Session**  
**05**

**Jimmy Stewart** Pure  
Technologies  
**Moderator Session**  
**05, 10**

**Karyn Stickel** Hubbell,  
Roth & Clark, Inc  
**Speaker Session 07,**  
**Moderator Session**  
**09, 11**

**Pradeep Sudini** CDM  
Smith **Speaker WKSP**  
**B**

**William Sukenik**  
Woolpert **Speaker**  
**Session 08**

**Dianne Sumego** DMS  
Water Solutions, LLC  
**Moderator Session**  
**02, 07**

**Timothy Sumner**  
Crawford, Murphy and  
Tilly Inc **Coordinator**  
**WKSP A, Speaker**  
**Session 11**

**Derek Sutton** Citizens  
Energy Group **Speaker**  
**Session 09**

**Tim Taylor** Carollo  
Engineers **Speaker**  
**Session 06**

**Carlos Toro-Escobar**  
Brown and Caldwell  
**Speaker WKSP B**

**Srini Vallabhaneni**  
Stantec **Speaker**  
**WKSP A, Moderator**  
**Session 09**

**Kevin Vander Tuig**  
Wade Trim **Speaker**  
**Session 03**

**Kent Veech** Woolpert  
**Speaker Session 08**

**Baxter Vieux** Vieux &  
Associates, Inc. / AE  
Monitoring **Speaker**  
**WKSP B, Speaker**  
**Session 13**

**Peter Wamsley** Beam  
Longest and Neff LLC  
**Speaker Session 13**

**Jennifer Welsch**  
Metro Saint Louis  
Sewer District  
**Moderator Session**  
**04, 08**

**Christy Willson**  
Horner & Shifrin Inc.  
**Moderator Session**  
**04, 06**

**Matthias Wittenberg**  
CDM Smith  
**Coordinator WKSP B**

**Christopher Wohlleb**  
Mott Macdonald  
**Speaker Session 07**

**Tiantian Xiang** Arcadis  
**Alternate Session 01**

**Alfredo Zaldivar** City  
of Los Angeles -  
Department of Public  
Works **Speaker**  
**Session 11**

## CONFERENCE SCHEDULE AT-A-GLANCE

### **Tuesday, June 4**

7:30 AM – 5:00 PM  
8:30 AM – 5:00 PM  
8:30 AM – 12:00 PM

Registration  
Workshop A  
Workshop B

### **Wednesday, June 5**

7:30 AM – 5:00 PM  
8:30 AM – 10:00 PM  
10:00 AM – 6:15 PM  
10:30 AM – 11:50 AM  
10:45 AM – 11:45 AM  
11:45 AM – 1:30 PM  
1:30 PM – 4:45 PM  
4:45 PM – 6:15 PM

Registration  
Opening General Session  
Exhibition Open  
Mobile Session I  
Technical Session 1  
Networking Lunch  
Technical Sessions 2, 3, 4  
Networking Reception

### **Thursday, June 6**

8:00 AM – 5:00 PM  
8:30 AM – 11:45 AM  
10:00 AM – 3:45 PM  
11:45 AM – 1:30 PM  
12:30 PM – 1:30 PM  
  
1:00 PM – 4:00 PM  
  
1:30 PM – 3:00 PM

Registration  
Technical Sessions 5, 6, 7  
Exhibition Open  
Networking Lunch  
Mobile Session: Emerging Topics  
and Technologies  
Facility Tour A: Belmont AWTP and  
Juan Soloman Park Lift Station  
Technical Sessions 8, 9, 10

### **Friday, June 7**

8:00 AM – 12:00 PM  
8:30 AM – 11:30 AM  
  
8:30 AM – 11:45 AM

Registration  
Facility Tour B: DigIndy Deep Rock  
Tunnel  
Technical Sessions 11, 12, 13

### **Indianapolis Marriott Downtown**

Marriott International aspires to be the global leader that demonstrates how responsible hospitality management can be a positive force for the environment and create economic opportunities around the world, and in the communities where we work and live!

Marriott Hotels and Resorts replaced light bulbs with energy-efficient bulbs, installed low-flow showerheads and toilets, introduced a water/energy saving linen program, involves its global workforce in eco-volunteerism and operates the most ENERGY STAR® certified properties in the industry, as part of Marriott's portfolio of brands.

Meetings and Events at Marriott use 100% recycled note pads, pens made from recycled materials, eco-friendly water service, and meeting room recycling where available. Organic Flowers are available upon request. Leftover food is donated to Second Helpings, an organization who uses it to create 4,000 hot, nutritious meals each day to feed people in need in Central Indiana.

Indianapolis Marriott Downtown has an amenity reuse program, water saving shower heads and toilets in all guest rooms, motion sensor and timed light switches in service landings and storage rooms, sensors and water conserving faucets in all public restrooms, optional linen reuse program for multiple night guests, recycling program for paper, cardboard, newspapers and ink cartridges, and fluorescent lighting throughout meeting areas. The HVAC system is scheduled to turn on and off in meeting rooms based on event agendas. Starbucks uses recyclable cups from post-consumer paper.

Learn about Marriott's green programs at <https://serve360.marriott.com/sustain/>. Contact us to make your next meeting green.

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### **Indiana Convention Center**

#### **FOOD SERVICE**

Strategic partnerships have been developed with local farmers to purchase seasonal fresh fruits, vegetables, meats and poultry. Second Helpings, a food rescue program, reclaims food after a food function and takes it to their kitchens. Local residents, under the supervision of training chefs, participate in a job-training program, learning to prepare food donated to homeless shelters and missions.

An entire line of biodegradable disposable service ware products is available upon request, giving meetings a green alternative to standard china and silverware. Green Seal Certified cleaning products are used throughout the facility.

### **RECYCLING**

The Indiana Convention Center & Lucas Oil Stadium recycles approximately 60 tons of aluminum cans, plastic bottles, glass and cardboard annually – from Colts games to expos and mega meetings. In addition, the facilities have a program for wholesalers to recycle pallets, paper and cooking oils. Batteries, light bulbs and computers are recycled to local organizations. A Cardboard baler compacts cardboard, making it easier to pick-up. A food waste pulper recycles dishwater and condenses waste before going into the landfill.

### **ENERGY EFFICIENCY**

It is standard operating procedure to reduce lighting and HVAC during move in and move out in the exhibit hall and in unoccupied areas of the building. Escalators are also scheduled according to in house groups.

High-efficiency exterior curtainwall glass throughout the Convention Center helps keep energy use low. Motion sensor lights controls are installed in restrooms. Building design allows us to use natural light daylight in most of lobby areas and exterior lighting is on low level on non-event days. Meeting rooms and lobby areas utilize compact fluorescent lamps and exhibit halls provide more efficient lower wattage lamps with the same light output.

### **WATER**

In an effort to save water, the center provides water stations rather than individual bottles for attendees. Sink faucets are sensory guided to use less water. In the public areas of the facility, the toilets have low valves with automatic flush. Also, for clean-up, all parking lots are swept – not sprayed – saving this valuable resource. Stormwater water infiltration basins separate storm water from oils and grease traveling to nearby waterways.

### **WALKABLE**

With over 7,100 hotel rooms, 200 restaurants and 50 attractions within walking distance of the center, attendees can walk while convening. Indy's walkability keeps transportation costs down. New bike racks have also been installed to promote alternative forms of transportation.

## UPCOMING WEF EDUCATION AND TRAINING EVENTS

### **Nutrient Removal and Recovery Symposium 2019**

*July 23-25, 2019  
Minneapolis, Minnesota  
[www.wef.org/Nutrients](http://www.wef.org/Nutrients)*

### **WEF/AWWA Transformative Issues Symposium 2019**

*August 7-9, 2019  
Washington, D.C.  
[www.wef.org/TISWorkforce](http://www.wef.org/TISWorkforce)*

### **WEFTEC 2019**

*September 21 – 25, 2019  
Chicago, Illinois  
[www.weftec.org](http://www.weftec.org)*

### **WEF/AWWA The Utility Management Conference 2020**

#### **Call for Abstracts Open Now**

*February 25-28, 2020  
Anaheim, California  
[www.wef.org/UtilityManagement](http://www.wef.org/UtilityManagement)*

### **Odors and Air Pollutants Conference 2020**

*March 15-18, 2020  
Cincinnati, Ohio  
[www.wef.org/OdorsAir](http://www.wef.org/OdorsAir)*

### **Residuals and Biosolids Conference 2020**

*Late March/Early April 2020  
Minneapolis, Minnesota  
[www.wef.org/ResidualsBiosolids](http://www.wef.org/ResidualsBiosolids)*

### **Stormwater & Green Infrastructure Symposium 2020**

*Late March/Early April 2020  
Minneapolis, Minnesota  
[www.wef.org/StormwaterGI](http://www.wef.org/StormwaterGI)*

### **Collection Systems Conference 2020**

*Early June 2020  
El Paso, Texas  
More Info Coming Soon  
[www.wef.org/CollectionSystems](http://www.wef.org/CollectionSystems)*

**NOTES**

**NOTES**



<b>NOTES</b>
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**NOTES**



# COLLECTION SYSTEMS CONFERENCE

Early June 2020 | El Paso, Texas

[www.wef.org/CollectionSystems](http://www.wef.org/CollectionSystems)

A background image showing a stack of large, dark-colored pipes, likely for water collection, viewed from the end. The pipes are stacked in a way that creates a series of concentric circles and a sense of depth. The image is overlaid with a semi-transparent red filter.

# 2020



## Local Connections, **Global Ideas**

Our clients face tough decisions with limited resources. That's why we support leading water associations—like WEF—to help make great things possible for our industry.



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[hdrinc.com](http://hdrinc.com)