

# COLLECTION SYSTEMS 2021

## A Virtual Event


**Conference Program**  
**March 23–25**

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

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







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# COLLECTION SYSTEMS

A Virtual Event

#WEFCollections

## **WEF**

### **Collection Systems 2021: A Virtual Event**

**Virtual Event**  
**March 23-25, 2021**

**Pre-Conference Workshop**  
**March 18, 2021**

## TABLE OF CONTENTS

<b>Collection Systems Specialty Conference Committee .....</b>	<b>2</b>
<b>Conference Code of Conduct .....</b>	<b>3</b>
<b>Registration .....</b>	<b>4</b>
<b>Continuing Education .....</b>	<b>4</b>
<b>Conference Sponsors .....</b>	<b>5</b>
<b>Online Proceedings .....</b>	<b>7</b>
<b>Sessions-at-a-Glance .....</b>	<b>7</b>
<b>General Virtual Event Information .....</b>	<b>8</b>
<b>Networking Opportunities .....</b>	<b>8</b>
<b>Pre-Conference Workshop .....</b>	<b>9</b>
<b>Virtual Event Detailed Schedule by Day .....</b>	<b>11</b>
<b>Presenter and Moderator Directory .....</b>	<b>16</b>
<b>Upcoming WEF Education &amp; Training Events .....</b>	<b>18</b>



COLLECTION SYSTEMS SPECIALTY CONFERENCE COMMITTEE



Jennifer Welsch  
*Metropolitan St. Louis Sewer District  
Specialty Conference  
Committee Chair*

Scott Aurit  
*HDR*

Kyle Curie  
*OHM*

John Fletcher  
*Duke's Root Control*

Peter Garvey  
*Dewberry*

Walter Graf  
*Water Research Foundation*

Diane Grossenheider  
*Black & Veatch*

Greg Heath  
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Scott Helfrick  
*ADS Environmental Services*

Kip Koszewski  
*HESCO*

Gary Moore  
*Washington University*

Dan Murray  
*US EPA*

Priya Persaud  
*Region of Peel*

Maria Sedki  
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Dave Servidio  
*Mott MacDonald*

Jim Shelton  
*Arcadis*

Jennifer Steffens  
*Xylem*

Kristi Steiner  
*Jacobs*

Karyn Stickel  
*HRC*

Dianne Sumego  
*DMS Water Solutions*

Kevin Vander Tuig  
*Wade Trim*

Christy Wilson  
*Horner & Shifrin, Inc.*

## CONFERENCE CODE OF CONDUCT

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

WEF has zero-tolerance for any form of discrimination or harassment, including but not limited to sexual harassment by participants or our staff at our meetings. WEF will take any action deemed necessary and appropriate, including immediate removal from the meeting without warning or refund, in response to any incident of unacceptable behavior, and WEF reserves the right to prohibit attendance at any future meeting, virtually or in person.

If you experience harassment or hear of any incidents of unacceptable behavior, WEF asks that you immediately email the WEF Executive Director Walter Marlowe.

### **Unacceptable behavior is defined as:**

- Negative comments about race/ethnicity, gender and gender identity, sexual orientation, disability, age, religion, physical appearance, citizenship, or other protected categories
- Unwelcome sexual attention, including inappropriate use of nudity and/or sexual images in public spaces or in presentations
- Threatening, stalking, or endangerment of others
- Any activity meant to cultivate hostility, ad hominem insults or other attacks

### **We do not tolerate the following:**

- Disruption of presentations during sessions, exhibitions, or at other events organized by WEF throughout the virtual meeting. All participants must comply with the instructions of the moderator and any WEF virtual event staff.
- Presentations, postings, and messages should not contain promotional materials, special offers, job offers, product announcements, or solicitation for services. WEF reserves the right to remove such messages and potentially ban sources of those solicitations.
- Participants should not copy or take screen shots of any technical presentations, sponsor demonstration, Q&A or any chat room activity that takes place in the virtual space.

## REGISTRATION

Online registration can be completed at any time before or during Collection Systems 2021: A Virtual Event by visiting the Registration webpage:

<https://registration.experientevent.com/ShowWEF215/>.

The registration fee includes access to educational content; networking features; and digital conference proceedings. The preconference workshop is optional (not included).

Beginning March 19, conference registrants will receive their username, temporary password, and [login](#) instructions from [noreply@learn.wef.org](mailto:noreply@learn.wef.org). If you registered on or after March 19, your [login](#) credentials will be sent to you no later than the next business day (Monday-Friday).

For more information about registration policies, please visit the conference webpage at [www.wef.org/collectionsystems](http://www.wef.org/collectionsystems) and click the "Registration" tab.

## CONTINUING EDUCATION

Did you know that WEF provides an easy way for virtual conference participants to receive continuing education (CE) credits? Attendees can now track credits, access transcripts, archived record keeping, and state reporting.

- **For Professional Engineers:** WEF education and training events are accepted in most U.S. states. WEF maintains Provider Status with several state engineering boards, including the Florida Board of Professional Engineers (FBPE) and the New York State Education Department (NYSED).
- **For Professional Operators:** WEF is pursuing CE credit pre-approval with many state operator licensing boards for Collection Systems 2021: A Virtual Event, including: CA, CO, FL, GA, IL, IN, MI, MO, NJ, NY, OH, OR, PA, TX, VA, WA, and WI.

States' licensing boards encourage licensees to familiarize themselves with credit policies and requirements, and to verify which events are approved or accepted in their state(s). If you have questions about WEF's Continuing Education Program, please contact us at [csc@wef.org](mailto:csc@wef.org) or 1-800-666-0206.

### How to get your certificate?

On each session page, you will see content, quiz and certificate options. In order to obtain your certificate, you will need to watch each session video in its entirety (on the content page), respond to attentiveness polls during the video, and pass the associated quiz with a score of 100%.

CONFERENCE SPONSORS

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



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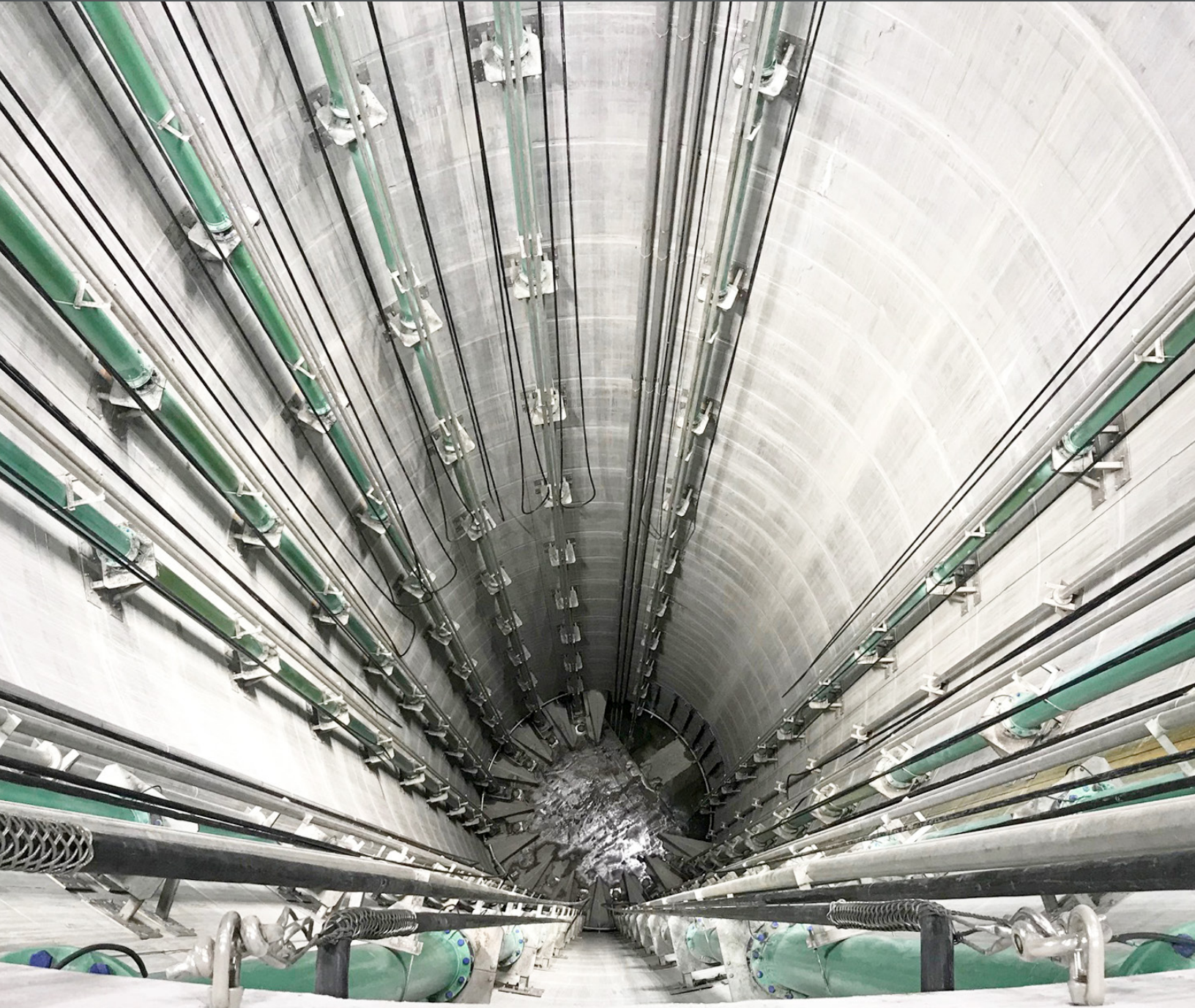
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Rowan Deep Tunnel Submersible  
Pump Station, Louisville, KY

## ONLINE PROCEEDINGS

Conference proceedings, consisting of manuscripts for each presentation, have been made available through an online portal. Advance registrants will receive an email with instructions on how to access to the Collection Systems 2021 online proceedings before the end of the conference. Later registrants will receive an email with instructions to access proceedings following the event's conclusion.

Not attending this year's Collection Systems Conference? Copies of proceedings may be ordered on Access Water starting March 26th at the member rate of \$120 USD/nonmember rate of \$150 USD. You may call 1-800-666-0206 or visit [www.AccessWater.org](http://www.AccessWater.org) to place your order.

## SESSIONS AT A GLANCE

Session Number	Session Title	Time	CE Credit Total/Type
<b>Thursday, March 18</b>			
Workshop A	Smart Flow Monitoring and Data Analytics to Drive Effective Sewer System Management (Sold Out)	12:00 PM – 4:00 PM Eastern	0.3 CEUs
<b>Tuesday, March 23</b>			
Session 01	Innovation	11:00 AM – 12:00 PM Eastern	1.0 PDHs
Company Demo	Teledyne ISCO	12:00 PM – 12:20 PM Eastern	N/A
Session 02	Flooding Dynamics	1:00 PM – 2:00 PM Eastern	1.0 PDHs
Company Demo	Vaughan Company	2:00 PM – 2:20 PM Eastern	N/A
Session 03	Rehabilitation	3:00 PM – 4:00 PM Eastern	1.0 PDHs
<b>Wednesday, March 24</b>			
Session 04	Planning	11:00 AM – 12:00 PM Eastern	1.0 PDHs
Company Demo	CentralSquare Technologies	12:00 PM – 12:20 PM Eastern	N/A
Session 05	Asset Management	1:00 PM – 2:00 PM Eastern	1.0 PDHs
Session 06	Wet Weather Issues	3:00 PM – 4:00 PM Eastern	1.0 PDHs
<b>Thursday, March 25</b>			
Session 07	Infiltration and Inflow	11:00 AM – 12:00 PM Eastern	1.0 PDHs
Session 08	Data & Analytics	1:00 PM – 2:00 PM Eastern	1.0 PDHs



## GENERAL VIRTUAL EVENT INFORMATION

The Collection Systems 2021 Virtual Event will be held online on an interactive platform where you'll gain access to eight Technical Sessions as well as Company Demos and Networking Opportunities. Technical Sessions will be presented in two ways: Live and Simulated-live (or simu-live) to encourage the most interaction and engagement between speakers and registrants.

**Live sessions** will take you to a Zoom meeting where the speakers and moderators are giving their presentations on screen in real time while you watch. There will be one session each day hosted live on Zoom.

**Simu-live sessions** will be pre-recorded, complete with moderator interaction and questions, and the recordings will be played at the scheduled date and time during the virtual event. Speakers will be present at that time to answer any questions asked by our audience live via chat.

## NETWORKING OPPORTUNITIES

We are utilizing Kumospace to allow for casual networking. The space will be open throughout the entire conference, so stop in any time. You can choose from any of the rooms listed and talk with people inside your sound bubble. The closer you get to a group, the louder they become. Some rooms even have music and a chance to fill up a virtual drink. Explore and see what you can do!

We encourage you to join this platform after technical sessions and company demos to continue the conversation.

### **Scavenger Hunt**

**Wednesday, March 24, 2:00 PM – 3:00 PM Eastern**

Join the Collection Systems Conference Scavenger Hunt! We want to mix up your day a bit with something fun. The hunt will take place in the same networking space you will have access to all week. You need to find all four clues to complete this challenge. Receive your first clue in room "Scavenger Hunt Starts Here". When you figure out the answer to the clue, provide the answer to the person holding the next clue in one of the other rooms. Each person with a clue will be named "I have Clue #X", so make sure you check all the rooms to find them! You have to go in order to get them all!

Winner gets a \$20 gift card to Amazon.

## PRE-CONFERENCE WORKSHOP

### **Smart Flow Monitoring and Data Analytics to Drive Effective Sewer System Management**

**Thursday, March 18, 2021**

**12:00 PM - 3:30 PM Eastern – Live**

#### ***SOLD OUT***

This workshop is intended to offer participants an opportunity to learn about or expand your knowledge of advancements in flow monitoring and data analytics to support effective management of wastewater collection systems and continuous digital transformation. This workshop will be hosted via Zoom and include a diverse group of speakers and interactive break-out groups.

- 12:00 PM**      **Welcome and Prelude: Flow Monitoring and Data Analytics**  
Srini Vallabhaneni, Kansas City Water, MO
- 12:10 PM**      **Interactive Session 1**  
*Topic: What are your prevailing practices for flow monitoring and data analytics?*  
Srini Vallabhaneni, Kansas City Water; Hatem El-Sayegh, Barge Design Solutions
- 12:30 PM**      **Case Study 1**  
James Kauffman, Metropolitan St. Louis Sewer District, MO
- 1:00 PM**        **Break**
- 1:10 PM**        **Technology Forum - Prevailing technologies/practices/trends**  
Kevin Enfinger, ADS; Jim Caruso, Hach; Rick Dey, Teledyne
- 2:25 PM**        **Interactive Session 2**  
*Topic: Frame future of smart sewer sensor networks and data analytics to drive effective sewer systems management and digital transformation*  
Srini Vallabhaneni, Kansas City Water; Hatem El-Sayegh, Barge Design Solutions
- 2:50 PM**        **Case Study 2**  
Tracey Heidersbach, East Bay Municipal Utility District, CA
- 3:20 PM**        **Closing Thoughts from Panelists**
- 3:30 PM**        **Workshop adjourns**

*Please Note: this workshop will not be recorded, so make sure you can join live before you register.*



# FIX IT BEFORE IT MAKES THE 5 O'CLOCK NEWS

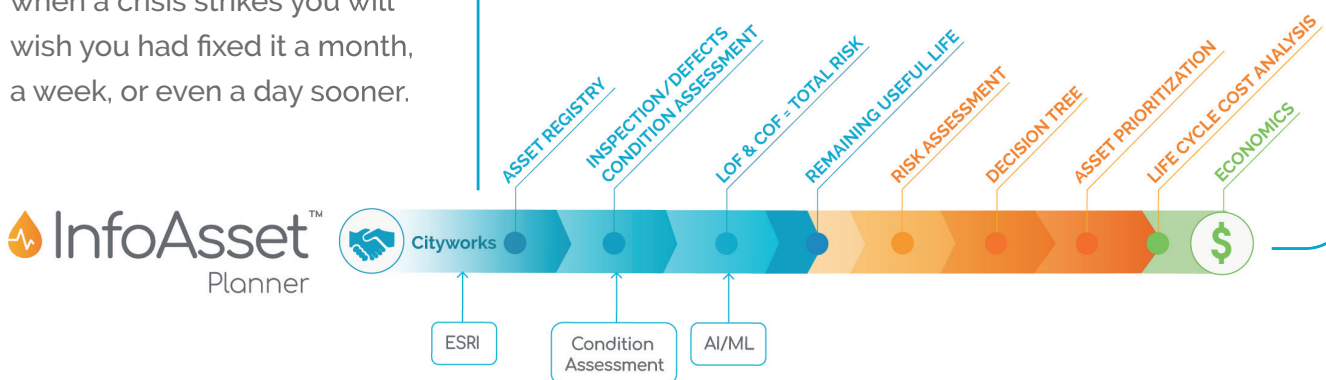


## DON'T LET THIS HAPPEN TO YOU

With the aging infrastructure utility teams face today, the deck is stacked against you. To make matters worse, your budget and time won't allow you to fix everything. However, when a crisis strikes you will wish you had fixed it a month, a week, or even a day sooner.

### INTRODUCING INFOASSET PLANNER

Using the power of **Cityworks AMS** to drive InfoAsset Planner by Innovyze, you can better respond to aging infrastructure by fixing it before it breaks. Giving you a 3 to 1 advantage in saving money.



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## VIRTUAL EVENT – TUESDAY, MARCH 23

### Session 01: Innovation

Tuesday, March 23, 2021

11:00 AM - 12:00 PM Eastern – Live

**Moderators:** Walter Graf, Water Research Foundation; Priya Persaud, Region of Peel

**11:00 AM**      **Houston's Effective Approach in Tracking and Preventing SSOs using Web-based Dynamic GIS and Power BI.**

Fazle Rabbi, Aby Varghese, Houston Public Works

**11:20 AM**      **Turbocharged Engines of Two Resilient Collection Systems**

Annette Duron, San Antonio Water System; Michael Mosier, City of Arlington; Paris Neofotistos, SmartCover

**11:40 AM**      **Implementation of Model Predictive Control for the Sewer System in Kolding, Denmark**

Nikolaj Mølbye, Kruger; Camilla Ravn, Thomas Faarbaek, BlueKolding; Mark Drake, Laurent Monier, Veolia

### Company Demo

**12:00 PM**      **Teledyne ISCO: Sneak Peek from Teledyne ISCO**

Sponsoring companies demonstrate the latest products, resources and problem-solvers with live chat Q&A.

### Session 02: Flooding Dynamics

Tuesday, March 23, 2021

1:00 PM - 2:00 PM Eastern – Simu-Live

**Moderators:** Kevin Vander Tuig, Wade Trim; Walter Graf, Water Research Foundation

**1:00 PM**      **Rising Lake Michigan Water Level Leads to 70 MGD Emergency Pump Station**

Allen Williams, Donohue & Associates

**1:20 PM**      **Adapting Collection System Infrastructure to Changing Flood Vulnerabilities - Southeastern Massachusetts Case Studies**

Anastasia Rudenko, Marc Drainville, GHD

**1:40 PM**      **How One Community Is Using Radar Rainfall to Reduce Overflows and Basement Flooding While Enabling Real-Time Control of Its Wastewater System**

Baxter Vieux, Vieux & Associates Inc; Michael Faye, Region of Peel

*Tuesday, March 23 schedule cont. on next page*

## VIRTUAL EVENT – TUESDAY, MARCH 23

*Tuesday, March 23 schedule cont. from previous page*

### Company Demo

- 2:00 PM**      **Vaughan Company: Vaughan Chopper Pump Recirculation Family & the New Sewage**  
Sponsoring companies demonstrate the latest products, resources and problem-solvers with live chat Q&A.

### Session 03: Rehabilitation

**Tuesday, March 23, 2021**

**3:00 PM - 4:00 PM Eastern –Simu-Live**

**Moderators:**    Scott Aurit, HDR Inc.; Kristi Steiner, Jacobs

- 3:00 PM**      **In-Place Emergency Rehabilitation of Northwest Interceptor In Urban Conditions**  
Mini Panicker, Biren Saparia, GLWA; Sara Kucharek, Joseph Alberts, Fritz Klinger, FK Engineering Associates; Karen Ridgway, Applied Science, Inc.; Steve Zadjel, Inland Waters Pollution Control
- 3:20 PM**      **CIPP in Paradise — Large Diameter Gravity Interceptor Sewer Rehabilitation by Lining with UV Cured-in-Place Pipe**  
Amanda Dobbs, Michael Burgett, Gresham Smith; Kenneth Rekdahl, Dueñas, Camacho and Associates; Ronald Abraham, Ken Stewart, Gresham Smith
- 3:40 PM**      **Inside the Fence: Assessing and Remediating 60+ Year Old Critical Plant Piping**  
Daniel Rodriguez, Black & Veatch

## VIRTUAL EVENT – WEDNESDAY, MARCH 24

### Session 04: Planning

Wednesday, March 24, 2021

11:00 AM - 12:00 PM Eastern –Simu-Live

**Moderators:** Dianne Sumego, DMS Water Solutions; Karyn Stickel, HRC

**11:00 AM Modern Master Planning in South Florida: Resilience and Condition Assessment Considerations for Regional Wastewater Transmission**

Jeremy Seiden, Broward County Water and Wastewater Services; Amanda Schwerman, Christopher Ranck, Brian Ball, Amanda Zarazua, Black & Veatch

**11:20 AM ReNewark: How Newark's Sewer Project Revitalized a Community**

Tim Schutz, Hazen and Sawyer; Roger Loomis, City of Newark, OH; Stephanie Weagraff, Arcadis

**11:40 AM Design Considerations and Deep Tunnel Construction on the Reedy River Basin Sewer Tunnel Project in Greenville, SC**

Jason Gillespie, Renewable Water Resources; Stephen O'Connell, Horry Parker, Black & Veatch

### Company Demo

**12:00 PM CentralSquare Technologies: CentralSquare Enterprise Asset Management Overview**

Sponsoring companies demonstrate the latest products, resources and problem-solvers with live chat Q&A.

### Session 05: Asset Management

Wednesday, March 24, 2021

1:00 PM - 2:00 PM Eastern –Simu-Live

**Moderators:** Karyn Stickel, HRC; Peter Garvey, Dewberry

**1:00 PM Don't Give Up When Things Get Tough to Perform Your Critical Force Main Inspections**

Celine Hyer, Harrison Steed, Arcadis

**1:20 PM Enhanced Monitoring and Infrastructure Management of Sewers and Anaerobic Biodigesters Using Innovative Fiber Optic-Based Sensor Systems**

Bruno Rente, Matthias Fabian, City, University of London; Louisa Vorreiter, Jerry Sunarho, Heriberto Bustamante, Sydney Water; Tong Sun, Kenneth Grattan, City, University of London

**1:40 PM Factors that Influence the Formation and Surface Adhesion of Fat, Oil, and Grease (FOG) Deposits**

Samrin Kusum, Mohammad Pour-Ghaz, Joel Ducoste, North Carolina State University

*Wednesday, March 24 schedule cont. on next page*



## VIRTUAL EVENT – WEDNESDAY, MARCH 24

*Wednesday, March 24 schedule cont. from previous page*

### **Session 06: Wet Weather Issues**

**Wednesday, March 24, 2021**

**3:00 PM - 4:00 PM Eastern – Live**

**Moderators:** Dan Murray, EPA; Greg Heath, AECOM

**3:00 PM**      **SSO Consenting and Design Storm Selection Based on Continuous Simulation of 25-Year Historical Rainfall**

Joel Wilson, WCS Engineering; Tyler McMillan, Christchurch City Council

**3:20 PM**      **Assessing Climate Change's Impact on the Size of CSO Facilities in King County (WA)**

Robert Swarner, Bruce Crawford, Brian Phillips, Homero Flores, Elizabeth Clark, Liaqat Khan, Hal Mullis, King County Wastewater Treatment Division

**3:40 PM**      **Jefferson County's Story of Applying Asset Management Principles to Optimize its O&M Program and Achieve Significant SSO Reduction**

David Denard, Daniel White, Jefferson County; John Evans, Blue Cypress Consulting

## VIRTUAL EVENT – THURSDAY, MARCH 25

### Session 07: Infiltration & Inflow

Thursday, March 25, 2021

11:00 AM - 12:00 PM Eastern –Simu-Live

**Moderators:** Peter Garvey, Dewberry; Dianne Sumego, DMS Water Solutions

**11:00 AM**      **Modeling Rainfall Runoff Responses with Antecedent Moisture Effects**  
Robert Czachorski, OHM Advisors

**11:20 AM**      **Investigating I/I into a Collection System with a Network of 87 Pump Stations Using SCADA Data**  
Patrick Flynn, Cameron Marra, Stantec

**11:40 AM**      **Addressing Spokane's Wet Weather Challenges with Real-Time Controls**  
Marcia Davis, Beryl Fredrickson, City of Spokane; Santtu Winter, Jacobs

### Session 08: Data & Analytics

Thursday, March 25, 2021

1:00 PM - 2:00 PM Eastern – Live

**Moderators:** Diane Grossenheider, Black & Veatch; Jennifer Welsch, Metropolitan St. Louis Water District

**1:00 PM**      **Real-time Assessment of the GLWA's Regional Operating Plan Using Digital Twin Technology**  
Zachary Eichenwald, Greg McGrath, CDM Smith; Joe Birchi, Betty Thomas, Biren Saparia, Sherri Gee, Great Lakes Water Authority

**1:20 PM**      **Holistic Wet Weather Management Combining Machine Learning, Treatment Plant Optimization, and Predicting Collection System Influent Flow Hydrographs**  
Katya Bilyk, Hazen and Sawyer; Erika Bailey, Raleigh Water

**1:40 PM**      **Best Practice of Intelligent Algorithms to Optimize and Prioritize Capital Investments and Asset Rehabilitation for Jefferson County, AL**  
Joel Wilson, Sasa Tomic, David Garcia, WCS Engineering; Stephen King, Hazen and Ssawyer; Daniel White, Jefferson County

## SPEAKER AND MODERATOR DIRECTORY

<p>Scott Aurit <i>HDR</i> Moderator Session 03</p>	<p>Peter Garvey Dewberry Moderator Session 05, 07</p>	<p>Dan Murray U.S. EPA Moderator Session 06</p>
<p>Katya Bilyk <i>Hazen and Sawyer</i> Speaker Session 08</p>	<p>Jason Gillespie <i>Renewable Water Resources</i> Speaker Session 04</p>	<p>Paris Neofotistos <i>SmartCover</i> Speaker Session 01</p>
<p>Michael Burgett <i>Gresham Smith</i> Speaker Session 03</p>	<p>Walter Graf <i>Water Research Foundation</i> Moderator Session 01, 02</p>	<p>Stephen O'Connell <i>Black &amp; Veatch</i> Speaker Session 04</p>
<p>Robert Czachorski <i>OHM Advisors</i> Speaker Session 07</p>	<p>Kenneth Grattan <i>City, University of London</i> Speaker Session 05</p>	<p>Mini Panicker <i>GLWA</i> Speaker Session 03</p>
<p>David Denard <i>Jefferson County Environmental Services</i> Speaker Session 06</p>	<p>Diane Grossenheider <i>Black &amp; Veatch</i> Moderator Session 08</p>	<p>Horry Parker <i>Black &amp; Veatch</i> Speaker Session 04</p>
<p>Amanda Dobbs <i>Gresham Smith</i> Speaker Session 03</p>	<p>Greg Heath <i>AECOM</i> Moderator Session 06</p>	<p>Priya Persaud <i>Region of Peel</i> Moderator Session 01</p>
<p>Mark Drake <i>Veolia Water Technologies, Inc.</i> Speaker Session 01</p>	<p>Celine Hyer <i>Arcadis US</i> Speaker Session 05</p>	<p>Fazle Rabbi <i>City of Houston, PWE</i> Speaker Session 01</p>
<p>Zachary Eichenwald <i>CDM Smith</i> Speaker Session 08</p>	<p>Fritz Klingler <i>FK Engineering Associates</i> Speaker Session 03</p>	<p>Christopher Ranck <i>Black &amp; Veatch</i> Speaker Session 04</p>
<p>John Evans <i>HDR Inc</i> Speaker Session 06</p>	<p>Samrin Kusum <i>North Carolina State University</i> Speaker Session 05</p>	<p>Daniel Rodriguez <i>Black &amp; Veatch</i> Speaker Session 03</p>
<p>Patrick Flynn <i>Stantec</i> Speaker Session 07</p>	<p>Roger Loomis <i>City of Newark Sewer &amp; Maint</i> Speaker Session 04</p>	<p>Anastasia Rudenko <i>GHD</i> Speaker Session 02</p>
<p>David Garcia <i>WCS Engineering</i> Speaker Session 08</p>	<p>Biren Saparia <i>Great Lakes Water Authority</i> Speaker Session 08</p>	

## SPEAKER AND MODERATOR DIRECTORY

Tim Schutz  
*Hazen and Sawyer*  
Speaker Session 04

Amanda Schwerman  
*Black & Veatch*  
Speaker Session 04

Jeremy Seiden  
*Broward County Water  
and Wastewater Services*  
Speaker Session 04

Kristi Steiner  
*Jacobs*  
Moderator Session 03

Karyn Stickel  
HGR  
Moderator Session 04, 05

Dianne Sumego  
DMS Water Solutions  
Moderator Session 04, 07

Robert Swarner  
*King County Wastewater  
Treatment Division*  
Speaker Session 06

Kevin Van Der Tuig  
*Wade Trim*  
Moderator Session 02

Baxter Vieux  
*Vieux & Associates Inc*  
Speaker Session 02

Jennifer Welsch  
*Metropolitan St. Louis  
Sewer District*  
Moderator Session 08

Allen Williams  
*Donohue & Associates*  
Speaker Session 02

Joel Wilson  
*WCS Engineering*  
Speaker Session 06

Santtu Winter  
*Jacobs*  
Speaker Session 07



## UPCOMING WEF EDUCATION & TRAINING EVENTS

### **Odors and Air Pollutants 2021: A Virtual Event**

Registration is open now!

April 20-22, 2021

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

### **Residuals and Biosolids 2021: A Virtual Event**

Registration is open now!

May 11-13, 2021

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

### **Innovations in Process Engineering 2021: A Virtual Event**

June 9-10 and 15-16, 2021

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

### **Stormwater Summit 2021: A Virtual Event**

June 22-23, 2021

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

### **AWWA/WEF Utility Management Conference 2021**

Atlanta, GA

August 3-6, 2021

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

### **WEFTEC 2021**

McCormick Place, Chicago, IL and Online

October 16-20, 2021

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

### **Save the Date for 2022**

Collection Systems Conference 2022

Detroit, MI

April 19-22, 2022

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