

Collection Systems Conference 2016

Collections Down South-Go With the Flow

Atlanta, Georgia, USA
1 - 4 May 2016

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For permission requests, please contact Water Environment Federation (WEF)
at the address below.

Water Environment Federation (WEF)
601 Wythe Street
Alexandria, Virginia 22314
USA

Phone: 1-800-666-0206
Fax: 1-703-684-1545

csc@wef.org

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Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
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TECHNICAL PROGRAM

Session 1: Infiltration and Inflow

Monday, May 2, 2016
10:45AM – 11:45AM

Room: Hanover DE
PDHs: 1.0

Moderator: Gary Moore, St. Louis MSD

Assistant Moderator: Jennifer Welsch, St. Louis MSD

- 01A 10:45AM **Rapid Partitioning of Sewer System Infiltration and Inflow1**
Zachary Eichenwald, Mitch Heineman, Ajay Prasad, Cindy Huang, Scott Craig, CDM Smith
- 01B 11:15AM **An Innovative Way To Detect and Quantify Combined Sewer Overflows In Tidal or Free Discharge Conditions6**
Patrick Stevens, Michael Armes, ADS Environmental Services.
- 11:45AM **Session Adjourns**

MOBILE SESSION

Featured Mobile Session

Monday, May 2, 2016
10:30AM – 12:00PM

Held On Exhibit Floor
GCHs: 1.5

Moderator: Jim Shelton, Arcadis

This year we are again offering a session that allows attendees to get out of their chairs and learn while interacting on the exhibit floor. Held in each presenter's booth, this mobile session provides engineers, operators, and managers with hands-on experience and explanation on a variety of technologies. Presentations will be given every half hour by each company's technical staff and will focus on a variety of collection system technologies and topics listed below. Participants will have the opportunity to visit three different booths during these 90 minutes.

10:30AM Presentation 1
11:00AM Presentation 2
11:30AM Presentation 3
12:00PM Session Adjourns

Presentation Topics Include:

- ❖ **CCTV Advances**
Cues, Inc. (Booth 223)
Topics: High definition video capabilities for sewers and manholes
- ❖ **Lateral Inspections**
Jack Doheny Companies (Booth 311)
Topics: Effective use of cleanout launched minicameras and sondes for inspecting and locating laterals
- ❖ **Inspecting Large Diameter Gravity Sewers**
Redzone Robotics, Inc. (Booth 228)
Topics: Multi-tool investigations using cameras, sonar, lidar, and other sensors; data interpretation and uses
- ❖ **Force Main Leak Detection**
Pure Technologies (Booth 110)
Topics: Techniques for locating leaks in pressure pipes
- ❖ **Flow Metering for I&I Prioritization**
ADS Environmental Services (Booth 217)
Topics: Meter type selection, what makes a good and bad meter location; how much data is needed to characterize I&I nature and extent

TECHNICAL PROGRAM

Session 2: Invited Local Session

Monday, May 2, 2016
1:30PM – 4:45PM

Room: Hanover AB
PDHs: 2.5

Moderator: Hatem El-Sayegh, Barge, Waggoner, Sumner & Cannon
Assistant Moderator: Greg Health, AECOM

- 02A 1:30PM **How Changes To The Way The City of Tuscaloosa Water and Sewer Department Managed Daily Operations Assisted In Implementation of A Successful CMOM Program16**
Jarrod Milligan, City of Tuscaloosa
- 02B 2:00PM **Wastewater Management Planning For The Atlanta Region27**
Danny Johnson, Metropolitan North Georgia Water Planning District
- 02C 2:30PM **Jefferson County Consent Decree - 20 Years and Counting36**
Daniel White, Jefferson County Commission
- 3:00PM **Networking Break**
- 02D 3:45PM **Chattanooga Consent Decree Program Unique Strategies and Positive Results47**
Jeffrey Rose, City of Chattanooga; Christopher Palmer, Jacobs Engineering
- 02E 4:15PM **Using Communication and Asset Management To Avoid A Consent Decree51**
Rebecca Shelton, Steve Sheets, Gwinnett County Water Resources
- 4:45PM **Session Adjourns**

TECHNICAL PROGRAM

Session 3: Modeling

Monday, May 2, 2016
1:30PM – 4:45PM

Room: Hanover FG
PDHs: 2.5

Moderator: Christy Willson, Horner & Shifrin
Assistant Moderator: Tim Ruggaber, EmNet, LLC

- 03A** **1:30PM** **Hydrologic and Hydraulic Modeling Methods Developed For Philadelphia’s Long-Term CSO Control Program - Green City, Clean Waters56**
Gary Martens, Rajesh Rajan, CDM Smith; Julie Midgette, Philadelphia Water Department; Henry Fan, Dwayne Myers, CDM Smith
- 03B** **2:00PM** **Using Neural Networks For Advanced Data Analytics and Operational Improvements66**
Luis Montestruque, Melissa Davidson, EmNet, LLC; Missy Gatterdam, Metropolitan Sewer District of Greater Cincinnati; Biju George, District of Columbia Water and Sewer Authority, Ali Partovi, EmNet, LLC.
- 03C** **2:30PM** **Inflow and Infiltration Analysis Innovations - Evaluating Actual Reduction of Rainfall Derived Inflow and Infiltration Using Control Basin and Hydraulic Modeling Methods71**
William Barrack II, John Paul Travis, James Shelton, Eric Harold, Arcadis
- 3:00PM** **Networking Break**
- 03D** **3:45PM** **Dynamic Modeling of The City of Atlanta’s South River Water Reclamation Center Linked With Collection System88**
Rasheed Ahmad, City of Atlanta; Giny Jacob, Gresham Smith and Partners; Alberto Bechara, City of Atlanta; Tim O'Brien; Ann Blissit, Gresham Smith and Partners; Vahe Kokorian, City of Atlanta
- 03E** **4:45PM** **Multi-Scale Collection System Performance Assessment Using The Hampton Roads Regional Hydraulic Model100**
Michael Morgan, CDM Smith; Phillip Hubbard; Robert Martz, Hampton Roads Sanitation District; Charles Moore, Matthias Wittenberg; Benjamin Sherman, CDM Smith
- 4:45PM** **Session Adjourns**
- Alternate** **A Middle Way To Major Storage Facility Design Using Long Term Continuous Simulation112**
Jeff Shiner, Metropolitan St. Louis Sewer District; Todd Williams, M3 Engineering Group P.C.

TECHNICAL PROGRAM

Session 4: Rehab

Monday, May 2, 2016
1:30PM – 4:45PM

Room: Hanover DE
PDHs: 2.5

Moderator: Luis Leon, CDM Smith

Assistant Moderator: CeCe Nguyen, Brown and Caldwell

- 04A 1:30PM Alternative Project Deliver For Sewer Collections Systems - Developing and Implementing The Sullivan's Island Turnkey Sewer Rehab Construction Program139**
James Shelton, ARCADIS; Greg Gress, Town of Sullivan's Island
- 04B 2:00PM DeKalb County's Department of Watershed Management Leverages Technological Tools To Enhance Delivery of Its CMOM Condition Assessment and Rehabilitation Activities150**
LaCresha Johnson, Darren Eastall, DeKalb County Department of Watershed Management; Reggie Rowe; Andy Rankin, R2T
- 04C 2:30PM Not Enough Space, Now What?- Rehabilitation of The 65 MGD Krause Pumping Station In Downtown Tampa161**
Freddy Betancourt, Greeley and Hansen
- 3:00PM Networking Break**
- 04D 3:45PM Implementing A Proactive Asset Renewal Program Through The Use of A Performance Time and Materials Contract178**
Kyle Boyle, Sanitation District No. 1 of Northern Kentucky; Sean O' Rourke, Hazen and Sawyer
- 04E 4:15PM When Engineers, Contractors, and Manufacturers Collaborate - Improvements In Chemical Grouting Practices From The Sullivan's Island Construction Management At Risk Project190**
James Shelton, Emily Sadowsky, Arcadis; Don Rigby, Avanti, Pete Fleetwood, Jon Peigler, Wes Hepler, Jason Hemphill, Bio-nomic Services; James Brown, Tri-State Grouting; Marc Antil, Logiball
- 4:45PM Session Adjourns**

TECHNICAL PROGRAM

Session 5: Integrated/Master Plan

Tuesday, May 3, 2016
8:30AM – 11:45AM

Room: Hanover AB
PDHs: 2.5

Moderator: Dianne Sumego, Black & Veatch

Assistant Moderator: Christy Willson, Horner & Shifrin

- 05A** **8:30AM** **Northeast Ohio Regional Sewer District Approach To Clean Water Act Integrated Planning202**
Imad Salim, Wade Trim Associates; Devona Marshall, Andrea Remias, Northeast Ohio Regional Sewer District; Anthony Igwe, Wade Trim Associates; Joe Pavlick, Water Resources and Coastal Engineering
- 05B** **9:00AM** **Reframing Impact To Opportunity: Adapting Collection System Infrastructure For High-Density Strategic Growth213**
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- 05C** **9:30AM** **Estimating and Minimizing Both CSO and WRRF Discharge Impact By Water Quality Based Control223**
Sovanna Tik, Université Laval; Thibaud Maruéjols, Suez Environnement, Lyonnaise des Eaux Research Center, LyRE; Paul Lessard, Université Laval; Peter Vanrolleghem, Université Laval
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- 05D** **10:45AM** **Using An Integrated Modeling Approach To Better Understand Wet Weather Dynamics and Deliver Environmental Outcomes At Least Cost.229**
Elliot Gill, CH2M; Per Henrik Nielsen, VCS Denmark; Susan Moisio, CH2M; Lorenzo Benedetti, Waterways
- 05E** **11:15AM** **When You Fail To Plan, You Plan To Fail: Workforce Planning For Public Utilities240**
Rich McGillis, SD1 of Northern Kentucky; James Turner, Coldwater Consulting, LLC
- 11:45AM** **Session Adjourns**
- Alternate** **Re-Planning The Plan - A New Master Planning Approach for Capital Savings250**
Christopher Ranck, Arcadis; Bill Grout, Citizens Energy Group; Aaron Goslee, MS Consultants

TECHNICAL PROGRAM

Session 6: Combined Sewer Overflows

Tuesday, May 3, 2016
8:30AM – 11:45AM

Room: Hanover FG
PDHs: 2.5

Moderator: Tim Ruggaber, EmNet, LLC

Assistant Moderator: Hatem El-Sayegh, Barge, Waggoner, Sumner & Cannon

- 06A 8:30AM Functional Design For The South Hartford CSO Storage Tunnel263**
Kate Mignone, Gregory Heath, AECOM; Scott Craig, CDM Smith; James Sullivan, AECOM
- 06B 9:00AM The Need For Speed: Design/Build Delivery of The Media Lot Combined Sewer Storage Vault283**
Steve Bupp; Christopher Haney, BGR JV; JoAnn Macrina, City of Atlanta; Mark Hellerstedt, BGR JV; Nolton Johnson, City of Atlanta; Anthony Crist, BGR JV
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- 06D 10:45AM Compliance Strategies For Your CSO Long-term Control Program: A Case Study of The Citizens Energy Group (Indianapolis, IN) Approach310**
Olivia Hawbaker, Rebecca Schaefer, Citizens Energy Group; Kristin Comer, Greeley and Hansen
- 06E 11:15AM Northeast Ohio Regional Sewer District Combined Sewer Overflow Control/Project Clean Lake Advanced Facilities Planning - Optimize Before Design323**
Kevin Vander Tuig, Wade Trim; Andrea Remias, Devona Marshall, Doug Lopata, Northeast Ohio Regional Sewer District; Tim O'Rourke, Wade Trim; Dan Dobbels, McMillen Jacobs Associates
- 11:45AM Session Adjourns**

TECHNICAL PROGRAM

Session 7: Asset Management

Tuesday, May 3, 2016
8:30AM – 11:45AM

Room: Hanover DE
PDHs: 2.5

Moderator: Fernando Gonzalez, LA City

Assistant Moderator: Neal Stubblefield, Barge, Waggoner, Sumner & Cannon

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<u>Diego Calderon</u> , MWH Global; Madeleine Driscoll, Baltimore City DPW |
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<u>Keith McCormack</u> , Hubbell Roth & Clark Inc.; Timothy Inman, Karyn Stickel, Hubbell, Max Clever, Nathan Shepherd, Spicer Group |
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<u>Richard Underhill</u> , Greeley and Hansen; Mujahid Ali, Fairfax County Department of Public Works |
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<u>Hal Balthrop</u> , Matt Lott, Metro Water Services Nashville |
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<u>Celine Hyer</u> , Arcadis |
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<u>Mark Smith</u> , Brown and Caldwell |

TECHNICAL PROGRAM

Session 8: Sulfides & Odor

Tuesday, May 3, 2016
1:30PM – 3:00PM

Room: Hanover AB
PDHs: 1.5

Moderator: Neal Stubblefield, Barge, Waggoner, Sumner & Cannon
Assistant Moderator: Greg Health, AECOM

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Philip Wolstenholme, Brown and Caldwell; Magloire Akpo-Sanni, Rob Bocarro, Jo Ann Macrina, City of Atlanta; Rachel Revis, Craig Ferguson, Brown and Caldwell
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Lam Nguyen, Vincent Marano, USP Technologies
- 08C** **2:30PM** **Controlling Force Main Gas Emissions Including Methane and Hydrogen Sulfide: Modeling Gas Generation, Emissions and Control Strategies For A Wastewater Force Main Network445**
Chris Easter, Greeley and Hansen; Matthew Ward, CH2M; Matt Poe, HRSD
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Mark Smith, Brown and Caldwell

Following the networking break in the exhibit hall, please join fellow conference participants at the Collection Systems Technical Discussion & Committee Meeting in Hanover FG from 3:45 pm – 4:45 pm

TECHNICAL PROGRAM

Session 9: Metering

Tuesday, May 3, 2016
1:30PM – 3:00PM

Room: Hanover FG
PDHs: 1.5

Moderator: Dan Murray, Metropolitan Sewer District of Greater Cincinnati
Assistant Moderator: Jennifer Welsch, St. Louis, MSD

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Margaret Fryer, Elizabeth Aquin, RJN Group, Inc.
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Patrick Stevens, Howard Carter, ADS Environmental Services
- 3:00PM** **Session Adjourns**

Following the networking break in the exhibit hall, please join fellow conference participants at the Collection Systems Technical Discussion & Committee Meeting in Hanover FG from 3:45 pm – 4:45 pm

TECHNICAL PROGRAM

Session 10: Trenchless Technology

Tuesday, May 3, 2016
1:30PM – 3:00PM

Room: Hanover DE
PDHs: 1.5

Moderator: David Servidio, Hatch Mott MacDonald

Assistant Moderator: Dianne Sumego, Black & Veatch

- | | | |
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<u>Neepa Shah</u> , Greeley and Hansen; Susan Hamilton, Quinton Nottingham, City of Richmond; George Guhse, Greeley and Hansen |
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<u>Joshua Farmer</u> , Hazen and Sawyer |
| | 3:00PM | Session Adjourns |

Following the networking break in the exhibit hall, please join fellow conference participants at the Collection Systems Technical Discussion & Committee Meeting in Hanover FG from 3:45 pm – 4:45 pm

TECHNICAL PROGRAM

Session 11: Sanitary Sewer Overflow

Wednesday, May 4, 2016
8:30AM – 11:45AM

Room: Hanover AB
PDHs: 3.0

Moderator: **Greg Heath**, AECOM

Assistant Moderator: **David Servidio**, Hatch Mott MacDonald

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Jane McLamarrah, MWH Americas; Rod Lovette, Juan Bedoya, Eduardo Baez, Miami-Dade Water & Sewer Department
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Anthony Crist, Gresham, Smith and Partner
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TECHNICAL PROGRAM

Session 12: Operation & Maintenance

Wednesday, May 4, 2016
8:30AM – 11:45AM

Room: Hanover FG
PDHs: 3.0

Moderator: Carl Chan, CDM Smith

Assistant Moderator: Pono Hanson, Brown and Caldwell

- | | | |
|-----|---------|---|
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<u>Mark Stirrup</u> , Tom Agnew, Gillian Harris, Hatch Mott MacDonald; Chris Anders, City of Niagara Falls |
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| | 11:45AM | Conference Adjourns |