Collection Systems 2013
Gold Nuggets of Knowledge

June 9 – 12, 2013
Sacramento Convention Center
Sacramento, California

Organized with the Support of the WEF Collection Systems Committee and California Water Environment Association.

OPENING GENERAL SESSION

Monday, June 10, 2013
8:30am – 12:00pm

The Collection Systems 2013 Conference Opening General Session will take place on the morning of Monday June 10 at 8:30am. Further details will be provided in the coming weeks!

TECHNICAL PROGRAM

Session 1: Private Property Inflow/Infiltration

Monday, June 10, 2013
1:30pm – 4:45pm

01A	**1:30pm**	**Pressure Sewer System Review & I/I Study** Paul Edwards, Urban Water Solutions
01B	**2:00pm**	**Decennial Flow Monitoring Project - Installing and Maintaining 235 Flow Monitoring Locations in Support of King County Conveyance System Improvement Program** Abraham Araya, King County /WTD
01C	**2:30pm**	**Convey Your Storm Water and Plug Your Holes! A proven means of I/I reduction with Private Property Improvements and Trenchless Sewer Rehabilitation** John P. Schroeder, CDM Smith; C. Timothy Fallara, City of Columbus
	3:00pm	**Networking Break**
01D	**3:45pm**	**Cost Effective and Reliable Inlfow-Infiltration Reduction - Have They Got it Right Down Under ?** Stephen C. Carne, GHD Limited
01E	**4:15pm**	**Making Sense of I/I Reduction Case Studies: We're Swimming In Data, But What Does It All Mean?** Heidi G. Oriol, East Bay Municipal Utility District; Jenny H. Tran, East Bay Municipal Utility District; Jacqueline T. Kepke, East Bay Municipal Utility District; Richard Cunningham, City of Albany, CA

Alternate **Sewer Lateral Lining By CIPP Method**
A. BADMUS, DC Water

TECHNICAL PROGRAM

Session 2: Getting Projects Done California Style

Monday, June 10, 2013
1:30pm – 4:45pm

02A	**1:30pm**	**Septic to Sewer Finally Becoming Reality** Bruce J. Corwin, CDM Smith; John Waddell, San Luis Obispo County
02B	**2:00pm**	**Addressing Difficult Access Reach Sewers (DARS)** Gary N. Skipper, Brown and Caldwell; Fernando Gonzalez, City of Los Angeles, CA
02C	**2:30pm**	**SASD'S Pipe Dream = Data Accuracy & Big $$ Savings!** Dave Pitts, Sacramento Area Sewer District (SASD); Chris Penales, Sacramento Area Sewer District (SASD); Marva Thompson, Sacramento Area Sewer District (SASD)
	3:00pm	**Networking Break**
02D	**3:45pm**	**Yes, In Your Backyard Backyard Sewer Main Replacements Benefit from Approach that Combines Trenchless Technologies and Focused Homeowner Outreach** Nancy McWilliams, West Yost Associates; Ian Pietz, Yuba City
02E	**4:15pm**	**Wait !! Should We Design A Pump Station Or Pipeline? - Case Study** Michael Fisher, Waterworks Engineers; Jigar D. Shah, Waterworks Engineers

Alternate **Inverted Siphon Sewer Rehabilitation Using CIPP in Santa Clara, California**
Glenn Hermanson, RMC Water & Environment; Lorenzo Lopez, City of Santa Clara

TECHNICAL PROGRAM

Session 3: Assest Management - Yesterday's Buzzword, Today's Business Practice

Monday, June 10, 2013
1:30pm – 4:45pm

03A 1:30pm **Defending Rehabilitation and Replacement (R&R) Budgets Using KANEW Analyses**
S W. Miles, CDM Smith; Terry McCue, Seminole County, FL; James Carolan, CDM Smith

03B 2:00pm **Developing a Sustainable Training Solution**
James McPherson, Union Sanitary District

03C 2:30pm **The Tri-Angular Flow of Sewers- SD1's Proactive Approach to Asset Management**
Kyle J. Boyle, Sanitation District #1 of Northern Kentucky; Rich McGillis, Sanitation District #1 of Northern Kentucky

3:00pm **Networking Break**

03D 3:45pm **JEA leverages Asset Management Program with PAS-55 and Best Management Practices**
Scott D. Kelly, JEA

03E 4:15pm **Victor Valley Interceptor Emergency Condition Assessment and Rehab Design/Construction**
Michael A. Fleury, Carollo Engineers; Latif Laari, Victor Valley Wastewater Authority; Gina Cloutier, Victor Valley Wastewater Reclamation Authority; Gilbert Perez, Victor Valley Wastewater Authority; Greg Gould, Carollo Engineers, Inc.

Alternate **Why Adopting Asset Management is really about Sustainability and Leveraging not New Business Practices**
Claire R. Baldwin, CDM Smith; Meha Patel, CDM Smith

TECHNICAL PROGRAM

Session 4: Northern California Collection Systems Compliance

Tuesday, June 11, 2013
8:30am – 11:45am

04A	**8:30am**	**SSO Estimation System** Shawn Nesgis, Union Sanitary District; Jose Rodrigues, Union Sanitary District
04B	**9:00am**	**Implementing An Effective Remote Manhole Level Monitoring Network** Justin Waples, Central Contra Costa Sanitary District
04C	**9:30am**	**Citizen Suits and the Public Agency; Both a Legal and Operations Perspective** Victoria L. Caulfield, El Dorado Irrigation District; Bobbi Larson, California Association of Sanitation Agencies
	10:00am	**Networking Break**
04D	**10:45am**	**Implementing 21st Century Solutions to a 19th Century System: Integrated Combined Sewer System Planning Achieves Regulatory Compliance in the City of Sacramento** David M. Wood, AECOM; Brett Grant, City of Sacramento, CA Department of Utilities; Sherrill Hunn, City of Sacramento, CA Department of Utilities
04E	**11:15am**	**Lights. Camera. Action! Who Knew Sewers Were so Glamorous?** Sharon Perlstein, City of West Hollywood, CA; Gary N. Skipper, Brown and Caldwell

Alternate **Effective Traceable Natural Gas Crossbore Investigations**
Greg Scoby, Frontline Energy Services

TECHNICAL PROGRAM

Session 5: Green Infrastructure and Integrated Wet Weather Management

Tuesday, June 11, 2013
8:30am – 11:45am

05A	**8:30am**	**Green Infrastructure Opportunities in Gray Wet Weather Plans** Lawrence J. Lennon, P.E., D WRE, Lennon, Smith, Souleret Engineering, Inc.; Sam Shamsi, Ph D., P.E., Michael Baker Corp; Anthony Igwe, P.E., Wade Trim Inc.; John Schombert, Three Rivers Wet Weather
05B	**9:00am**	**Simplifying Bioretention Monitoring and Maintenace** Kristen E. Buell, Malcolm Pirnie/ARCADIS-US; Jonathan Ondracek, City of Fort Wayne-City Utilities
05C	**9:30am**	**Wilmington's LTCP Story: Proven Track Record Of Addressing CSOs** Colleen Arnold, City of Wilmington; Sean Duffy, City of Wilmington; Diana Qing Tao, Tetra Tech; Luc Robitaille, Tetra Tech
	10:00am	**Networking Break**
05D	**10:45am**	**Master Planning Collection Systems in a Time of Uncertainty: Climate Change, Adaptive Management, and Defining New Levels of Service** Shawn A. Dent, Carollo Engineers
05E	**11:15am**	**North Street Reconstruction & Integrated Stormwater Management System** Neil Myers, Williams Creek Consulting

Alternate **Green Stormwater Infrastructure Design - Lessons Learned in Philadelphia**
Stephen C. Maakestad, Hatch Mott MacDonald

TECHNICAL PROGRAM

Session 6: Operations and Maintenance – The Core Business

Tuesday, June 11, 2013
8:30am – 11:45am

06A	**8:30am**	**Off-Line Wastewater Storage Facility O&M: Lessons Learned from Knoxville Utilities Board's First Six Years of Operation** Craig S. Parker, Gresham Smith & Partners; Brad Brummett, Knoxville Utilities Board
06B	**9:00am**	**Assessment of WSSC's Maintenance Effectiveness for Preventing SSOs and Backups and Recommended Enhancements** Carlos G. Cuneo, Black and Veatch
06C	**9:30am**	**Virginia Beach Sewer Operations Performance Measures** Daren Williams, City of VA Beach Public Utilities Operation
	10:00am	**Networking Break**
06D	**10:45am**	**Work Order Planning for Wastewater Force Main Condition Assessment** Phil Hubbard, Hampton Roads Sanitation District (HRSD); Paul C. Wilson, Brown & Caldwell
06E	**11:15am**	**Improved Proactive Asset Renewal: Targeting I/I Utilizing Micromonitoring** Joseph Kamalesh, Stantec Consulting Services Inc; John Barton, Stantec Consulting Services Inc; Donald Isaacs, Sanitation District No.1, Northern KY; Rich McGillis, Sanitation District No.1, Northern KY

Alternate **Clean as a Whistle: Evaluation of Brick Sewers and Siphons**
Robert A. Curti, Hatch Mott MacDonald

TECHNICAL PROGRAM

Session 7: Modeling

Tuesday, June 11, 2013
1:30pm – 3:00pm

07A 1:30pm **Infiltration & Inflow -- How Much Do Collection Systems Degrade in 10 Years? Results From Monitoring and Modeling 235 Basins**
Robert (Bob) E. Swarner, King County Wastewater Treatment Division

07B 2:00pm **Simulate Your Way out of a Difficult Real Time Control Problem**
Maxym Lachance, BPR CSO, a Tetra Tech Company; Sid Lodewyk, City of Edmonton

07C 2:30pm **Developing More Representative Design Storms for Collection System Modeling**
Baxter E. Vieux, Vieux & Associates, Inc.; Eric Saylor, Metropolitan Sewer District of Greater Cincinnati; Susan Moisio, CH2MHILL

Alternate **Catch and Release Strategies: Using Available in-Plant Storage for Wastewater Peak Flow Attenuation**
Fernando F. Gonzalez, City of Los Angeles; C. B. Trussell, City of Los Angeles; Ali Poosti, City of Los Angeles; Adel H. Hagekhalil, City of Los Angeles; Al Bazzi, City of Los Angeles

TECHNICAL PROGRAM

Session 8: Legal and Regulatory - The Rules and How to Change Them

Tuesday, June 11, 2013
1:30pm – 3:00pm

08A 1:30pm **A Hitchhiker's Guide to Private I/I: Innovative GIS, Modeling and Field Techniques for Achieving Cost-Effective I/I Reductions from Private Laterals and Sewers**
Jeff Scarano, Brown and Caldwell; Phil Hubbard, Hampton Roads Sanitation District; Richard Stahr, Brown and Caldwell; Andy Lukas, Brown and Caldwell

08B 2:00pm **City of Baltimore Design Management Approach for CD Wet Weather Program - Need for Standardization**
Samuel O. Atolaiye, P.E. CCM, Baltimore City; Arthur A. Jones-Dove, P.E, CCM, Louis Berger Water Services

08C 2:30pm **Challenges In Fats, Oils, and Grease (FOG) Measurement**
Yi Wang, North Carolina State University; Joel J. Ducoste, North Carolina State University

Alternate **How My Hydraulic Retention Time Affects Odors and Corrosion**
Kevin A. Jacobs, ECO Oxygen Technologies, LLC

TECHNICAL PROGRAM

Session 9: Combined Sewer Overflows

Tuesday, June 11, 2013
1:30pm – 3:00pm

09A 1:30pm **The Metropolitan St. Louis Sewer District Strikes Gold with "Strapped Plumbing"**
Michael F. Lorenzo, URS Corporation

09B 2:00pm **Taking up the Challenge of CSO Monitoring: The City of Winnipeg Experience in Setting up an Ambitious Program**
Cynthia Wiebe, City of Winnipeg; Diana Tao, Tetra Tech; Alain Charron, Tetra Tech

09C 2:30pm **South Bend Long Term Control Plan Optimization of Conveyance, Storage, Linear Transport/Storage, Green Infrastructure and Real Time Control**
Jeff Frey, PE, Optimatics LLC; Joel Wilson, CPEng, Optimatics LLC; Patrick Henthorn, City of South Bend Public Works; Gary Gilot, PE, City of South Bend Public Works; Scott Girman, PE, Greeley and Hansen; Rebecca Schaefer, PE, Greeley and Hansen; Luis Mon

Alternate **Force Main Condition Assessment is an Iterative Process**
Derek M. Wurst, V&A

TECHNICAL PROGRAM

Session 10: Planning - How to Stay Ahead of the Game

Wednesday, June 12, 2013
8:30am – 11:45am

10A	**8:30am**	**Evaluation of Life-Cycle Costs and Cost/Benefit Analysis in Comparing Sewer Replacement vs. Sewer Rehabilitation** John Killips, Tetra Tech; Chad A. Gamble, City of Lansing
10B	**9:00am**	**City of San José Sewer Capacity Planning: Moving Beyond the Master Plan** Catherine Greenman, RMC Water & Environment; Shelley Guo, City of San Jose
10C	**9:30am**	**What Is The Capacity Of That Force Main?** James Tomaine, Wyoming Valley Sanitary Authority; Thomas M. Walski, Bentley Systems
	10:00am	**Networking Break**
10D	**10:15am**	**Use of Acoustic Inspection for Prioritizing Renewal and Replacement Projects at Ft. Jackson, SC** Ivan Howitt, InfoSense, Inc.; Jeffery C. Johnson, Brady Engineering; George Selembo, InfoSense, Inc.; Alex Churchill, InfoSense, Inc.
10E	**10:45am**	**Sewer Corrective Action Recommendations an Automated Product of Northern Kentucky Sanitation District On's Asset Management Process** Rich McGillis, Northern Kentucky Sanitation District One; Reggie Rowe, CH2M Hill; Susan Moisio, CH2M HILL; Courtney C. Kennedy, Critigen
10F	**11:15am**	**MSD St. Louis - Bonfils I/I Removal Pilot Study - Bust or Lucky Strike?** Gary S. Beck, George Butler Associates; Gary T. Moore, Metropolitan St. Louis Sewer District

Alternate **City of Baltimore Design Management of Wet Weather Program - Need for Standardization**
Wazir Qadri, City of Baltimore; Arthur Jones-Dove, Louis Berger Water Services; Muhammad Tak, Louis Berger Water Services

TECHNICAL PROGRAM

Session 11: Design and Construction - Delivering Capital Projects

Wednesday, June 12, 2013
8:30am – 11:45am

11A	**8:30am**	**Utilizing New Technologies to Protect Old Assets** Ahmad Habibian, Black & Veatch Corporation; Phil Hannan, Black & Veatch Corporation
11B	**9:00am**	**Rehabilitating Early 20th Century Bricks and Mortar Sewer with 21st Century Technology** Timothy F. Sumner, Crawford, Murphy and Tilly Inc
11C	**9:30am**	**From Concept to Practice: South Bend, IN's Intelligent Collection System** Timothy Ruggaber, Emnet LLC; Gary Gilot, City of South Bend, IN; Patrick Henthorn, City of South Bend, IN
	10:00am	**Networking Break**
11D	**10:15am**	**Small Bore Sewer System in Developing Countries: Challenges Solved** Ahmed Fadel A. Fadel, Mansoura University; Hatem A. Fadel, Misr Higher Institute for Engineering and Technology
11E	**10:45am**	**$225 Million Investment in Infrastructure Demands Comprehensive Planning** Matthew J. Winkelman, GHD Inc.; David Y. Coleman, GHD Inc.; Yousra Tilden, GHD Inc.; Robert Donaldson, South Bayside System Authority; Roanne Ross, Whitley Burchett & Associates
11F	**11:15am**	**Historic Civil War Era 48" Outfall Sewers Fully Renewed Using CIPP Technology in Hoboken, NJ** Mark G. Wade, CH2M Hill

TECHNICAL PROGRAM

Session 12: Modeling II

Wednesday, June 12, 2013
8:30am – 11:45am

12A	**8:30am**	**Models for Capacity Assessment: More than Just Pretty Pictures!** David Powell, Woolpert; Dudley C. Smith, Woolpert; Jason Mitchell, City of Hampton, VA; Deva Borah, Woolpert; Michael Kirby, Woolpert
12B	**9:00am**	**The Tale Of Two Solutions - 1D vs. 2D Solution For Combined Sewer System Modeling** Mira Chokshi, AECOM; Nicholas Birth, San Francisco Public Utilities Commission
12C	**9:30am**	**Steady-State or Dynamic? Choosing a Hydraulic Model that is Most Appropriate for Your Needs** Alison Hill, RMC Water and Environment; Paul Giguere, RMC Water and Environment
	10:00am	**Networking Break**
12D	**10:15am**	**Case Study: Fort Wayne's Hydraulic Model Recalibration and its Application for Real Time Control Evaluations** Wendy Reust, City of Fort Wayne, Indiana; Srinivas Vallabhaneni, CDM Smith; Carl Chan, CDM Smith; Dan Lexsa, CDM Smith; Pat Flynn, CDM Smith
12E	**10:45am**	**What Should I Expect From My Operations: Comparison of Collection System Operating Performance** Paul H. Causey, Causey Consulting
12F	**11:15am**	**Where Vision Meets Dollars and Cents: Comprehensive Plan Impacts to a Sanitary Sewer System** Stephen Maldonado, Jr, City of College Station; Sharon M. Miller, HDR Engineering Inc; Tina Whitfield, HDR Engineering