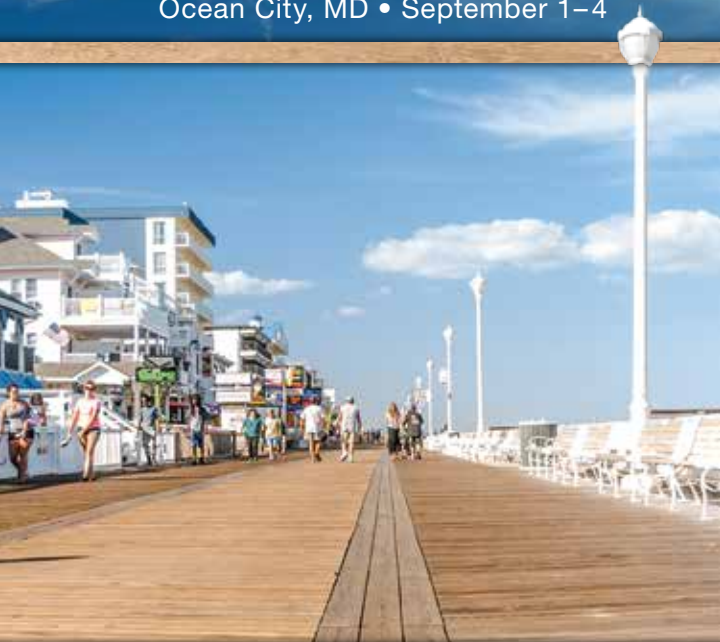




2015

TRI-ASSOCIATION CONFERENCE

Ocean City, MD • September 1-4



LEARN, NETWORK, ENJOY





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WELCOME TO THE 2015 TRI-ASSOCIATION CONFERENCE

The Chesapeake Water Environment Association (CWEA), the Chesapeake Section, American Water Works Association (CSAWWA), and the Water & Waste Operators Association of MD, DE, and DC (WWOA) are pleased to once again host a combined Annual Conference and Exhibition at the Roland E. Powell Convention Center in Ocean City, Maryland from September 1–4, 2015. The Conference Committee has planned the program and schedule, as well as negotiated blocks of rooms at conference rates with several local hotels. Please check the Tri-Association Conference website (www.ChesapeakeTricon.org) frequently for updated information regarding the program, hotel accommodations, registration, golf outing, Water for People Fun Run/Walk, and other valuable information.

This year we are moving Registration, the Information Desk, and Exhibitors to the first floor of the Convention Center!

Our Exhibit Hall will host our biggest exhibition in one room ever! The hall includes 138 booths, and six equipment demonstration areas.

The 7th Annual Operations Challenge will also be spotlighted in the Exhibit Hall, with the exciting *Pipe Cutting Shootout* during Wednesday evening Happy Hour. The Operations (Ops) Challenge Awards will also be presented in the Exhibit Hall during the Thursday afternoon break.

Operators can get 1 credit hour by visiting exhibitors!

Detailed information will be available at the conference.

To maximize time with Exhibitors and highlight the Ops Challenge, **we are hosting the following events in the Exhibit Hall:**

- Tuesday Early Bird Reception
- Wednesday and Thursday breaks and breakfasts
- Wednesday Lunch
- Wednesday Shooters' Happy Hour
- Thursday Ops Challenge Awards

Our 2015 Technical Program will include **over 135 presentations in six concurrent sessions**. In addition to the technical presentations,

two Pre-Conference Workshops will be held on Tuesday, September 1, 2015. Four one-hour presentations are approved for Process Credits.

New for 2015, we will be hosting our **Opening Session in the brand new and state-of-the-art Performing Arts Center**, conveniently located across from our Exhibit Hall. This amazing new feature of the Convention Center will be the perfect atmosphere for our esteemed Keynote Speaker, **Mr. Mark Kim, CFO of DC Water**.

New for 2015, we will host our first-ever Photo Contest!

We know that our attendees take super pictures during the conference and at our events, and we want to share the best of these with all of our members! Numerous categories will be featured, and full contest rules will be available at the Conference, including great prizes for our winners, and recognition in the *Ecoletter* and *Chesapeake Magazine*!

The Cyber Café will be located in Room 209, and will include several computers and a printer. The Conference Committee has arranged for free wireless internet access at the Convention Center for attendees and exhibitors; however, this service is not guaranteed.

Cyber Café sponsored by:



WELCOME

ROLAND E. POWELL CONVENTION CENTER

The Convention Center is located at 4001 Coastal Highway, between 40th and 41st streets. There are 1,200 parking spaces at the Convention Center. Anyone with a 2015 Tri-Association Conference name badge can ride the Ocean City buses at no charge.



REGISTRATION

Registration Location: First Floor

Tuesday: 7:30 AM – 5:00 PM

Wednesday: 7:30 AM – 5:00 PM

Thursday: 7:30 AM – 5:00 PM

Friday: 7:30 AM – 10:30 AM

Sponsored by:



ATTENTION CERTIFIED OPERATORS

The pre-conference workshops and technical sessions have been approved by the Maryland Board of Waterworks and Waste System Operators, and course codes have been assigned. This year's program includes approved 1-hour Process Credit presentations for water (2 courses) and wastewater (2 courses) operators and superintendents. The course number and applicable certification data will be included on the *Technical Session Attendance Form* that will be available at the conference. Be sure to get your *Technical Session Attendance Form* stamped at the end of each session as this will be the only time to obtain stamps that verify your attendance.

The Maryland Board of Waterworks and Waste System Operators has again approved one hour of non-process credit for Exhibitor Product Briefings which can be obtained by visiting exhibitors in the Exhibit Hall. Operators and superintendents need to meet and discuss available technologies with a minimum of 10 Exhibitors. Exhibitors will then complete and sign the *Exhibitor Product Briefing Form* which is part of the *Technical Session Attendance Form* to receive credit. Operators must obtain signatures from 10 Exhibitors to receive the 1 non-process credit hour as no partial credit will be given.

All operators must get their completed *Technical Session Attendance Form* signed by an authorized committee member at the Information Desk **before you leave the conference**. You will not be able to obtain a signature after Noon on Friday, September 4, 2015.

ATTENTION PROFESSIONAL ENGINEERS

As part of the continuing education requirements for Professional Engineers registered in Maryland and Virginia, you are required to obtain proof of attendance for professional development hours. The *Technical Session Attendance Form* will be available at the conference to provide proof of attendance. Be sure to get your *Technical Session Attendance Form* stamped at the end of each session as this will be the only time to obtain stamps that verify your attendance.

All engineers pursuing continuing education credits must get their completed *Technical Session Attendance Form* signed by an authorized committee member at the Information Desk **before you leave the conference**. You will not be able to obtain a signature after Noon on Friday, September 4, 2015.

CONFERENCE PLANNING COMMITTEE

Jane Bayer, NASSCO, Inc.

Arrangements Chair

Hotel Chair

Sarah Bunk, JMT

EWB Silent Auction Vice Chair

Gian Cossa, DC Water

Keynote Speaker Chair

Pre-Conference Workshop Chair

Gary Geck,

Hatch Mott McDonald

Treasurer

Mike Emery, DC Water

Operations Challenge Vice Chair

Joan Fernandez,

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Awards Chair

Christine Gunsauillas,

Entech, Inc.

Fun Run Chair

Eric Held,

Charles Morrow & Associates

Exhibitor Chair

EWB Silent Auction Chair

Louis Keepers,

Town of Walkersville

Signage Chair

Graeme Lake, Pennoni

Assistant Convention Center Liaison

Technical Program Vice Chair

Sophia Liskovich,

Gannett Fleming

Technical Program Vice Chair

Kraig Moodie, FloWav

Operations Challenge Chair

Zainab Nejati,

Brown & Caldwell

Promotions Chair

Morgan O'Dell,

St. Mary's County

Brochure Chair

Golf Vice Chair

Kristi Perri, GHD Inc.

Deputy Chair

Technical Program Chair

Registration Chair

On-Line Registration Chair

Exhibitor Vice Chair

DuWayne Potter,

St. Mary's County

Committee Chair

Convention Center Liaison

Anthony Rocco, Howard County

Top Ops Chair

Ron Tatariw, Tatariw, Inc.

Golf Chair

AI Will, JMT

Insurance Chair

CTA Representative

Tuesday, September 1
Registration/Check-In First Floor 7:30 AM – 5:00 PM
WFP Golf Event Ocean City Golf Club, Berlin, MD 8:00 AM check-in, 9:00 AM start
Exhibitor Move In Exhibit Hall 10:00 AM – 5:00 PM
Pre-Conference Workshop More Arrows for Your Quiver: Asset Management Tools for Utilities Room 201 9:00 AM – 4:30 PM
Pre-Conference Lunch for Workshop Attendees Noon – 1:00 PM
Pre-Conference Workshop Basics of Backflow, and Cross Connection Control Plan Elements, Regulations, and Implementation Room 203 1:00 PM – 5:00 PM
Early Bird Reception/Golf Awards Exhibit Hall 5:30 PM – 7:30 PM

Wednesday, September 2	
WFP Fun Run/Walk The Grand Hotel (21 st Street) 7:00 AM	OPs Challenge Pre-Competition Meeting Exhibit Hall 11:00 AM – 11:30 AM
Registration/Check-In First Floor 7:30 AM – 5:00 PM	Lunch With Exhibitors Exhibit Hall Noon to 1:30 PM
Presidents'/Chairs' Breakfast Princess Royale Schooners Restaurant 7:30 AM – 9:00 AM (by invitation)	OPs Challenge Exhibit Hall (Classroom/Lab) 1:30 PM – 5:00 PM
Exhibits Open Exhibit Hall 7:30 AM – 6:00 PM	Technical Sessions Rooms 201 – 206 1:30 PM – 3:00 PM
Continental Breakfast Exhibit Hall 7:30 AM	Break/Visit Exhibitors Exhibit Hall 3:00 PM – 3:30 PM
EWB Silent Auction Exhibit Hall 8:00 AM – 6:00 PM	Technical Sessions Rooms 201 – 206 3:30 PM – 5:00 PM
Technical Sessions Rooms 201 – 206 8:30 AM – 10:00 AM	Pipe Cutting Shootout Exhibit Hall 5:00 PM – 6:00 PM
Biosolids Beauty Contest CWEA Table, Exhibit Hall 9:00 AM – 11:00 AM	Shooters' Happy Hour Exhibit Hall 5:00 PM – 6:00 PM
Break/Visit Exhibitors Exhibit Hall 10:00 AM – 10:30 AM	Fun Night! Seacrets® (ticketed event) 7:00 PM – 11:00 PM
Opening Session/Keynote Address Performing Arts Center 10:30 AM – 11:45 AM	

CONFERENCE AT-A-GLANCE

Thursday, September 3	
Registration/Check-In First Floor 7:30 AM – 5:00 PM	CWEA Business Luncheon Room 215 (ticketed event) Noon – 2:00 PM
Exhibits Open Exhibit Hall 7:30 AM – 4:00 PM (Move Out 4:00 PM – 6:00 PM)	WWOA Business Luncheon Rooms 207 – 208 (ticketed event) Noon – 2:00 PM
Continental Breakfast Exhibit Hall 7:30 AM	Ops Challenge Luncheon Rear Patio (invitation only) 12:30 PM – 1:30 PM
EWB Silent Auction Exhibit Hall 8:00 AM – Noon	Technical Sessions Rooms 201 – 206 2:00 PM – 3:30 PM
Technical Sessions Rooms 201 – 206 8:30 AM – 10:00 AM	Top Ops Room 213 3:00 PM – 5:30 PM
OPs Challenge Exhibit Hall 9:00 AM – 4:00 PM	Break/Ops Challenge Awards Exhibit Hall 3:30 PM – 4:00 PM
Break/Visit Exhibitors Exhibit Hall 10:00 AM – 10:30 AM	Technical Sessions Rooms 201 – 206 4:00 PM – 5:30 PM
Technical Sessions Rooms 201 – 206 10:30 AM to Noon	Awards Program Dockside Hall • Cocktails: 5:45 PM – 6:15 PM • Program: 6:15 PM – 7:30 PM
CSAWWA Business Luncheon Room 217 (ticketed event) Noon – 2:00 PM	

Friday, September 4
Registration/Check-In First Floor 7:30 AM – 10:30 AM
Continental Breakfast Outside Rooms 201 – 206 7:30 AM
Technical Sessions Rooms 201 – 206 9:00 AM – 11:30 AM
Last Chance for Technical Session Attendance Form Signatures Information Booth 11:30 AM – Noon
Adjourn/Monster Door Prizes Information Booth 11:45 AM
CSAWWA Board Meeting & Luncheon Room 208 Noon – 2:00 PM
CWEA Board Meeting & Luncheon Room 213 Noon – 2:00 PM
WWOA Board Meeting & Luncheon Room 207 Noon – 2:00 PM

	Room 201	Room 202	Room 203	Room 204	Room 205	Room 206
	Asset Management	Wastewater	Water Research	Collection Systems	Stormwater	Water
8:30 AM	Tracking Levels of Service and Operational Metrics to Align Baltimore DPW's Asset Management Program with Stakeholders	Design of a 600 MGD Aerated Grit Removal Facility	Treatment Technologies for Removal of Emerging Water Contaminant: Iodinated X-ray Contrast Media (ICM)	Reducing Collection System Flow Constraints through the Design of a New 600 Million Gallon per Day Influent Pumping Station	Integrating Local TMDLs with the Chesapeake Bay TMDL – The District of Columbia's Consolidated TMDL Implementation Plan	UV-oxidation for Recalcitrant Chemical Contaminants: Successes, Challenges and Future Applications*
9:00 AM	An Integrated Approach Toward Comprehensive Facility Planning for the Piscataway WWTP	Design Model Meets World – Back River Design combines Physical and Design Models to deliver Wet Weather Solution	Rejection of the Non-biodegradable Toxic Ions via Cross-flow Negatively Charged Polyamide/TiO2 Composite Nanofiltration Membrane System	Design Considerations for Pumping Station Upgrades	TMDL Work Plan for a Maryland State Agency – Upcoming Tasks Leading to Permit Compliance	
9:30 AM	Preventive Maintenance Optimization, where 3R = Win Win	Inside the Fence Investment Returns Outside the Fence Dividends: Back River Wastewater Treatment Plant Headworks Improvements	Reduction of Perchlorate in Aqueous Solution by Bimetallic Catalysts Electrodes	Utilizing Oxygen in Gravity Collection Systems for Odor and Corrosion Control	Hydraulic and Hydrologic Modeling Strategies for Green Infrastructure in Support of Combined Sewer Overflow Reductions	Advanced Ozone Technology is a Practical, Low-Maintenance, and Energy Efficient Option for Many Facilities
10:00 AM	N/A	N/A	N/A	N/A	N/A	
	Room 201	Room 202	Room 203	Room 204	Room 205	Room 206
	Asset Management	Wastewater	Water Regulatory	Collection Systems	Stormwater	Wastewater
1:30 PM	Real Asset Management at Work – Boots on the Ground Making a Difference in Baltimore, MD	Gravity Power: Using a Siphon to Save Energy at a Large MBR Facility	Regulatory Update: Representatives from USEPA, MDE, and DNREC will present information on regulatory issues facing the drinking water industry	Unique Alternative Project Delivery Saved Significant Costs and Time for Conveyance System Rehabilitation and Provides Other Owner Benefits	Implementing Operation and Maintenance Programs for Large (And Rapidly Growing) LID Portfolios	How to Squeeze 4 MGD of Capacity into a 2 MGD Bag: A Detailed Comparison of Performance and Operational Costs for Three High Biomass Inventory Processes*
2:00 PM	"Be Calm and AMP On" – Implementation of an Asset Management Program for the City of Annapolis	Avoiding "Wastewaterfalls" through Steady-State Hydraulic Modeling and Operational Changes		Evaluation of Trenchless Technology for 60-in Diameter Brick Combined Trunk Sewer Rehabilitation	Attempting to Meet the Chesapeake Bay TMDL Goals: Anne Arundel County's Lessons Learned in Program Management	
2:30 PM	Achieving ISO 55000 Certification – Case Study Examples Show How to Leverage Best Practices	Clarion Borough, Pennsylvania Renovates Wastewater Treatment System to Manage Large Peaking Factor		Alternative Project Delivery for Sewer Collections Systems – Developing and Implementing the Sullivan's Island Turnkey Sewer Rehab Construction Program	Combining Grant Funding, Design Assistance, and Stormwater Credit Programs to Leverage Private Sector Investment and Participation in Green Infrastructure Implementation	N/A
	Room 201	Room 202	Room 203	Room 204	Room 205	Room 206
	Asset Management	Wastewater	Water Distribution	Collection Systems	Stormwater	Wastewater
3:30 PM	On Demand Pump Condition Assessment and Optimization	Will You Be Ready When the Septage Trucks Come Rolling In?	A Strategic Approach to Water Main Replacement in the City of Baltimore – Need for a Programmatic Approach	Wanna Learn about Design, Permitting and Construction Challenges of a Large SSO Consent Decree Program and also about Negotiating a Consent Decree Extension?	Ecological Enhancement Through Stream Stabilization and Restoration: Case Studies in Urban and Rural Environments	Impact of Sludge Pretreatment Technologies on Anaerobic Digester Process Operating Conditions*
4:00 PM	WSSC's Emergency Intervention of a Highly Critical PCCP	Multi-Stage Biofiltration for Onsite Wastewater Nitrogen Reduction	Identifying Critical Infrastructure through the Use of Hydraulic Modeling to Support Asset Management and Master Planning	Assessing Baltimore City Sewer Rehabilitation Projects Effectiveness through Flow Monitoring and Hydraulic Modeling Viewpoint	Floatables Away: A case study of Trash TMDL Implementation and Baltimore City's Watershed 263 Program	
4:30 PM	Big Data – Soup to Nuts	Centralizing Wastewater Treatment – Two Recent Examples Explored	The City of Baltimore's 50 Million Gallon Water Storage tanks for Lake Ashburton at Hanlon Park	Optimizing Locality Sewer System Improvements with a Customized Regional Hydraulic Model	Stormwater Improvements and Public Outreach in the Christina Watershed, Delaware	N/A

*Course approved for 1-hour Process Credits for Operators and Superintendents.

	Room 201	Room 202	Room 203	Room 204	Room 205	Room 206
	Asset Management	Wastewater	Water Distribution	Collection Systems	Sustainability	Water
8:30 AM	How Much to Spend on Sewer Inspection, Renewal and Replacement? A Risk-Based Assessment for DC Water	Design of UV System for Mixture of Industrial and Municipal Wastewater	Case History of Cross-Town Tunnel Water Main Rehabilitation: Review of Risks and Mitigations from Investigation through Construction and Ultimate Return to Service	Know Before You Go – Lessons Learned Using Trenchless Alternatives to CIPP Sewer Rehabilitation	Refining Green Infrastructure Design Standards for Optimized Combined Sewer System Performance	Design Approaches for Creating Value and Overcoming Challenges in Construction of a \$200 Million Surface Water Treatment Plant Upgrade and Expansion
9:00 AM	A Value Driven Approach to Long Term Planning: DC Water's Experience	Startup of Nutrient Removal in a 3.75 MGD SBR Plant with Tertiary Cloth Filters and Microwave UV	Planning, Design and Construction of WSSC's Bi-County Water Supply Tunnel	Through a Levee and Under a Stream: The Rehabilitation of a 102-inch Sewer Pipeline	84-Inch Diameter Gravity Pipeline Significantly Reduces Electrical Costs at 100 MGD Water Treatment Plant	
9:30 AM	The Role of GIS in Asset Management and Utilities Operations	Disinfecting Wet Weather Flows in the 21st Century – Design & Operational Challenges	The Next Chapter – Non-Destructive Condition Assessment of Aerial Crossing Pipelines	Risk Analysis for Sewer Assets in Creekbeds in the District of Columbia	Issues and Resolutions for Specifications of Cured-in-Place Pipe (CIPP) in DC Water Sewer Rehabilitation Projects	N/A
	Room 201	Room 202	Room 203	Room 204	Room 205	Room 206
	Asset Management	Wastewater	Water	Collection Systems	Sustainability	Water
10:30 AM	Leveraging Organizational Culture and Agility to Ensure Successful Transition to World Class Asset Management	Process Control Evaluation Provides Optimization and Energy Reduction	Keeping it Simple through Collaboration: A Fast-Track and Cost Effective Utility Upgrade	iSSES: A Smarter Way to Prioritize and Implement Gravity System Condition Assessment Activities	Life Cycle Assessment: Quantifying Sustainability Performance of Wastewater Treatment Plants	125 MGD Intermediate Ozone Upgrade of the Hap Cremean WTP
11:00 AM	Innovative Water Main Replacement Planning Using a Combination of Statistical Modeling and Condition Assessment	Long-Term Energy Conservation at HRSD	Program Management Toolbox for a Major New Water Supply Program	MAN-UP! The Manned Inspection of An Unreinforced Concrete Sewer Asset	Changing our Urban Infrastructure with Symbiotic Streetscapes	
11:30 AM	Not All Data Is Created Equal: Impact to Decision Making	Greenhouse Gas Emissions From Wastewater Treatment – A Comprehensive Review	Bringing ASR to the Finish Line – Reuse of Existing Infrastructure to Develop a New Peak Demand Supply Source	Broadband Electromagnetic Survey of 59 Wastewater Force Mains and What Did We Find?	An Assessment of an Alternative Pathway for Utilization of Biogas Derived from Anaerobic Digestion	N/A



	Room 201	Room 202	Room 203	Room 204	Room 205	Room 206
	Asset Management	Wastewater	Water Treatment	Collection Systems	Biosolids	Wastewater
2:00 PM	Capital Region Water Asset Management Program	Analyzer Based Methanol Dose Optimization at Blue Plains AWTP	Impacts of Ferric Chloride on WSSC's Potomac Water Filtration Plant	Horizontal Directional Drilling – Challenges and Successes from the Design Engineer's Perspective	Not Just Hot Air: Comparing and Selecting Biosolids Thermal Dryer Technologies	Treatment Performance Results of Multiple Operating Modes for a New Four-Stage Bardenpho Process at the Maryland City Water Reclamation Facility
2:30 PM	Corrosion Control and Asset Management – The Basics of Cathodic Protection	Optimizing Nutrient Removal at a 75 mgd ENR Facility – From Process Modeling to Practice	Chlorination and Biological Growth in Drinking Water Treatment Plant Filters – A Case Study	Application of an External V-Wrap Carbon Fiber Technology Aides Force Main Repair	Evaluation and Pilot Testing of a Direct Turbo Dryer at a 5.0 MGD Facility	
3:00 PM	Exposed Sewer Asset Assessment, Prioritization and Protection: Rock Creek Park, Washington, DC	Achieving NR with Variable Industrial Loads: IFAS – with a side (stream) of Chemical Treatment	The Long-Term Lead and Copper Rule: Understanding Potential Changes and Impacts on Community Water Systems	Fiber Reinforced Polymer Technology and Uplifting Forces in Wastewater Manholes	Implementing Thermal Hydrolysis to Expand Solids Handling Capacity at the HRSD Atlantic Treatment Plant	N/A
	Room 201	Room 202	Room 203	Room 204	Room 205	Room 206
	Asset Management	Wastewater	Water Distribution	Collection Systems	Biosolids	Wastewater
4:00 PM	Planning for Tomorrow using ArcGIS Today	Wetland Treatment for Nutrient Removal: Grand Lake St. Mary's	It's a Blasting Good Time! Installation of a 30-inch HDPE Transmission Main in a Corrosive Environment, through Rock, Under a River and Adjacent to an Active Failing Pipe	Suppressing the Surge: A Two-Stage Modeling Approach to Transient Analysis and Mitigation for a Deep CSO Storage Tunnel	Starting from Scratch – Commissioning the First Thermal Hydrolysis Digesters in North America	Biosolids 'Quality' – What Does it Mean and Why Does it Matter?
4:30 PM	How Do You Spell Relief? O-O: Operational Optimization through Industry Best Practice	Unique Challenges of Small Wastewater Treatment Plants Design	'Parting the Sea of Groundwater:' Trenchless Installation of 36-inch Water Transmission Beneath Severn Run	Hydraulic Modeling to Meet Peak Flow Recurrence Requirements – The New Trend	Performance of the Two-Phase Anaerobic Digestion System at Baltimore City's Back River WWTP	
5:00 PM	Using Open Communication and Detailed Planning to Minimize ENR Construction Effects on Operation of a Major Facility	Unique Design Yields Major WRRF Cost Savings: The Strasburg, VA Experience	Planning and Executing a Successful Pipe Diver Condition Assessment	WSSC Clarksburg Ten Mile Creek Sewer Facility Study – Balancing Commission, County and Community Needs	Enhanced Anaerobic Digester Performance and Efficiency with Improved Heating and Mixing	N/A



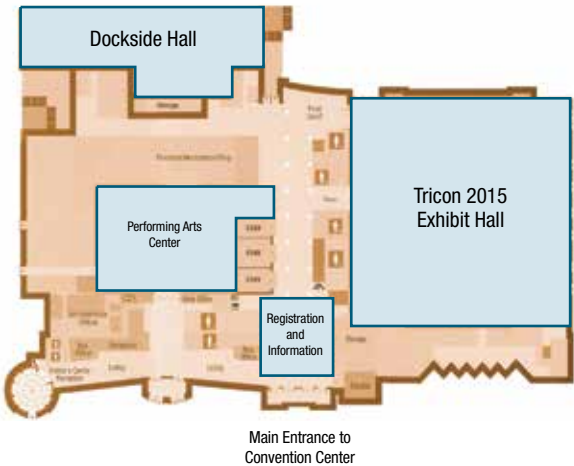
	Room 201	Room 202	Room 203	Room 204	Room 205	Room 206
	Asset Management	Wastewater	Utility Management	Collection Systems	Biosolids	Wastewater/Water
9:00 AM	An Economical Program to Improve Water Quality from Your Old Cast Iron Mains	The New Gold Rush: WSSC Proposal Turns Treated Wastewater Into Revenue	Overcoming the Conservation Conundrum	A Pilot Study of Hydrological Model Enhancements to Improve Accuracy of Continuous Simulations that Result in Right-Sized Sewer Improvements for Baltimore	Analysis of Thermal Hydrolysis and Recuperative Thickening at UOSA	Solutions of Operational Flexibility for Aerated Grit Amidst Ambiguous Design Recommendations
9:30 AM	Streamlining Asset Management, Identifying Gaps between Data Analysts and Engineers	More than Metal: The Finer Points of Specifying Slide Gate Systems	Rising to the Surface: Why and How Water Utilities Should Use Social Media	Consent Decree SRRR Collection System implementation using GIS for Baltimore County, MD.	Design and Integration of WAS Storage and Thickening Facilities at the Fort George G. Meade Wastewater Treatment Plant	
10:00 AM	Corrosion Control and Asset Management – Coating Design, Inspection and Maintenance Programs	Attack of The Blob! (Clarifier Algae) What to do When Dollars Are at Stake	NYCDEP Creates an Accountable Manager Certification Program to Transfer Critical Knowledge and Improve Capital Program Delivery Performance	Gaming the System – How to Choose Favorable (and Defensible) Design Conditions for Capacity and SSO Planning and Design	Why Class A Does Not Always Make Cents: Cost Model to Drive Biosolids Planning Decisions	Renovation and Upgrading Potable Water Gravity Filter Underdrains for Improved Performance, Longer Filter Runs, and Backwash Water Minimization*
10:30 AM	Overcoming Challenges Developing an Asset Management System for a Containerized Cargo Port Terminal	Hydrogen Sulfide Damage to the Primary Clarifiers at the Back River WWTP	Information Management Governance – Taming Data Chaos to Reach Informed Business Decisions	Find That Cross Connection or Dye Trying – The Process of Identifying Cross Connections Between Sanitary and Storm Sewers	Starting with a Product in Mind – Biosolids Design Based on Beneficial Use Goals	
11:00 AM	Leveraging Smart Data Collection with Asset Management Principles	Identifying Potential Sites In Delaware For The Application And Infiltration Of Wastewater	Contractor Prequalification – Is it RIGHT for Your Project?	SSOs by The Numbers – Implications for Preventive & Corrective Strategies	Structuring Regionally-Based Class A Biosolids Processing Facilities in Response to Regulatory, Public Policy and Economic Drivers	N/A

*Course approved for 1-hour Process Credits for Operators and Superintendents.

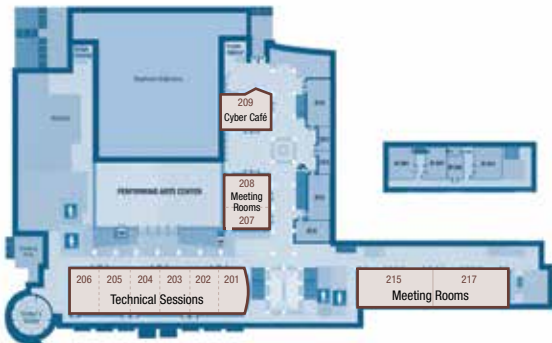


CONVENTION CENTER MAPS

LEVEL 1



LEVEL 2



Cyber Café: Room 209
Technical Sessions: Rooms 201-206
Meeting Rooms: 207, 208, 215, 217

PRE-CONFERENCE WORKSHOPS

TUESDAY, SEPTEMBER 1, 2015

The 2015 Tri-Association Conference Committee is pleased to offer Pre-Conference Workshops. The technical program includes two workshops: one focused on **Asset Management** and one on **Cross Connection Control**. You must pre-register for these workshops. Registration includes lunch at noon. *All workshops are subject to cancellation dependent upon the number of registrants. If your workshop is cancelled you will be notified and your workshop payment will be refunded in full.*

ASSET MANAGEMENT WORKSHOP

More Arrows for Your Quiver: Asset Management Tools for Utilities

9:00 AM – 4:30 PM • Room 201

Facilitators: Gian Cossa and Craig Daly

This pre-conference workshop will focus on current topics of interest within Asset Management, specifically: Asset Management Plans; Condition Assessment and Remaining Useful Life; Levels of Service and Performance Measurement; and Business Case Evaluations. This workshop includes a combination of presentations and “hands-on” breakout sessions to work through example problem statements and to reinforce certain elements of the asset management decision making process.

Agenda

9:00 AM – 9:15 AM	Overview and Introductions (Charles Card, EBA Engineering, Inc.)
9:15 AM – 10:00 AM	Asset Management Plans (Seth Yoskowitz, GHD Inc.)
10:00 AM – 10:15 AM	Break
10:15 AM – 11:15 AM	Condition Assessment and Remaining Useful Life (Gage Muckleroy, GHD Inc. Travis Wagner, Pure Technologies, Inc.)
11:15 AM – Noon	Breakout Session
Noon – 1:00 PM	Lunch
1:00 PM – 2:00 PM	Levels of Service and Performance Measurement (Jon Davis, Raftelis Financial Consultants, Inc., Gage Muckleroy, GHD Inc.)
2:00 PM – 3:15 PM	Business Case Evaluations (Fred Pfeifer, WSSC/Hugh Sinclair, WSSC)
3:15 PM – 3:30 PM	Break
3:30 PM – 4:15 PM	Breakout Session
4:15 PM – 4:30 PM	Wrap-up

TUESDAY, SEPTEMBER 1, 2015

CROSS CONNECTION CONTROL WORKSHOP

Basics of Backflow, and Cross Connection Control Plan Elements, Regulations, and Implementation

Noon – 5:00 PM • Room 203 • Moderator: Graeme Lake

Training Objectives

Upon completion of the course the participant should be able to:

1. Understanding common causes of cross-connections.
2. Understand the basics of cross connection control (assemblies, devices, methods).
3. Understand the essentials of cross connection control programs.
4. Understand the importance of cross connection control surveying, testing & documentation.
5. Understand the Rules & Regulations governing cross connection control/Backflow.

Who Should Attend?

- Individuals directly involved in a cross-connection program.
Both management and staff will benefit from this course.
- Water and Wastewater Superintendents/Managers
- Distribution and Collection Personnel
- Building and Plumbing Inspectors
- State of Maryland MDE Regulators

Agenda

Noon – 1:00 PM	Lunch
1:00 PM – 2:00 PM	Basics of Backflow (Steve Fox, HydroCorp)
2:00 PM – 3:00 PM	State Regulations & Codes, Responsibilities and Liabilities (MDE Representative and Steve Fox, HydroCorp)
3:00 PM – 3:10 PM	Break
3:10 PM – 3:50 PM	Essential Elements of a Cross Connection Control Program (Steve Fox, HydroCorp)
3:50 PM – 4:15 PM	Implementation and Challenges of a CCC Program for WSSC (Tom Buckley, WSSC)
4:15 PM – 4:40 PM	Implementation and Challenges of a CCC Program for Charles County (Kristy McAndrew, Charles County)
4:40 PM – 5:00 PM	Round Table Forum: <ul style="list-style-type: none">• Discussion on Current Systems with active CCC Program• Discuss the regulations, any shortcomings and ease or difficulty in implementing the requirements• Discuss different types of plans and how they are administrated• Questions & Answer Session from the participants

CONFERENCE HIGHLIGHTS

TUESDAY, SEPTEMBER 1, 2015

REGISTRATION/CHECK-IN

7:30 AM – 5:00 PM • First Floor

GOLF OUTING BENEFITTING WATER FOR PEOPLE

8:00 AM Check-In, 9:00 AM Shotgun Start

Format: Captain's Choice



water for people

Ocean City Golf Club

11401 Country Club Drive, Berlin, MD

Before you arrive in Ocean City, stop off in nearby Berlin, Maryland to play on the beautiful and challenging Newport Bay course at the Ocean City Golf Club. Prizes will be distributed at the end of the Golf Outing, and winners announced at the Early Bird Reception. The Captain's Choice outing format will have a 9:00 AM shotgun start (check-in begins at 8:00 AM). Unclaimed prizes will be posted and can be claimed at the Information Booth. An individual golf registration fee of \$100 or a foursome fee of \$360 includes a continental breakfast, practice range, green fees and cart, a lunch buffet, and prizes. Proceeds from the golf outing will support Water For People.

Back Again for 2015 – Hole in One Competition for \$25,000!

The golf tournament will include a Hole in One Competition. It will be \$5 to enter and each person can enter only one time. The prize for a hole in one is \$25,000. If there is more than one hole in one winner, the prize will be split between the winners.

Registration

Register for golf through our online system at
www.chesapeakeetricon.org/golf.html

For additional information: Contact Ron Tatariw, Tatariw, Inc.,
at 703-716-0770 or by e-mail: rtatariw@tatariw.com.

Directions to golf course from Ocean City: Go west on Route 50 to third traffic light and turn left on Route 611 (Stephen Decatur Highway). Go six miles south on Route 611 to the "Y" in the road. Bear right at the "Y" onto South Point Road. Ocean City Golf Club is one mile on the right.

TUESDAY, SEPTEMBER 1, 2015

ASSET MANAGEMENT WORKSHOP

More Arrows for Your Quiver: Asset Management Tools for Utilities

9:00 AM – 4:30 PM • Room 201

See page 16 for Details

EXHIBITOR MOVE IN

10:00 AM – 5:00 PM • Exhibit Hall

PRE-CONFERENCE LUNCH FOR WORKSHOP ATTENDEES

Noon – 1:00 PM

CROSS CONNECTION CONTROL WORKSHOP

Basics of Backflow Overview, and Cross Connection Control Plan Elements, Regulations and Implementation

Noon – 5:00 PM • Room 203

See page 17 for Details

EARLY BIRD RECEPTION

5:30 PM – 7:30 PM • Exhibit Hall

Come get warmed up for the conference by enjoying lite fare and drinks with our valued exhibitors. You will have the chance to win fabulous door prizes. Sodas, beer, and wine are complimentary and cash bar for liquor will be available.

Sponsored by:



**Phoenix
Engineering**



CONFERENCE HIGHLIGHTS

WEDNESDAY, SEPTEMBER 2, 2015

5K FUN-RUN/WALK

BENEFITTING WATER FOR PEOPLE

7:00 AM • Boardwalk at the Grand Hotel
(21st Street)

Early Bird Cost \$25/Standard Registration Cost \$35
which includes t-shirt, prizes and a donation to Water
For People.



water for people

Sponsored by:



WEDNESDAY, SEPTEMBER 2, 2015

PRESIDENTS'/CHAIRS' BREAKFAST

7:30 AM – 9:00 AM (by invitation)

Schooners Restaurant, Princess Royale, 91st Street

REGISTRATION/CHECK-IN

7:30 AM – 5:00 PM • First Floor

CONTINENTAL BREAKFAST

7:30 AM • Exhibit Hall

Sponsored by:



GREELEY AND HANSEN

EXHIBITS OPEN

7:30 AM – 6:00 PM • Exhibit Hall

SILENT AUCTION

BENEFITTING ENGINEERS WITHOUT BORDERS

8:00 AM – 6:00 PM • Exhibit Hall

(Ends at Noon on Thursday)



The 2015 Tri-Association Conference includes a Silent Auction that will benefit Engineers Without Borders. The auction will begin Wednesday, September 2, 2015 at 8:00 AM, and end Thursday September 3, 2015 at Noon. The bid forms will be collected at Noon sharp, so make your last bid before then. Balloons will be hung at each item in the auction so that attendees can locate and bid on the auction items.

You can also **support the work of Engineers Without Borders by donating an item for the silent auction.** Auction items of all values are welcome. Your sponsorship of this event will not only support global public health, it will also provide exposure of your business to the conference attendees. All donors will be recognized at the event. To donate, please contact Sarah Bunk at sbunk@jmt.com or (410) 568-2668.

CONFERENCE HIGHLIGHTS

WEDNESDAY, SEPTEMBER 2, 2015

TECHNICAL SESSIONS

8:30 AM to 10:00 AM • Rooms 201 – 206

BIOSOLIDS BEAUTY CONTEST

9:00 AM – 11:00 AM • CWEA Table, Exhibit Hall

Contact Scott Weikert at Scott.Weikert@ch2m.com for more Information on submitting your entry.

WEDNESDAY MORNING BREAK/ VISIT EXHIBITORS

10:00 AM – 10:30 AM • Exhibit Hall

Sponsored by:



OPENING SESSION

10:30 AM – 11:45 AM • Performing Arts Center

This year's Opening Session will be held in the beautiful, brand new Performing Arts Center, in the Ocean City Convention Center! The state-of-the-art, two-tiered auditorium, includes theater seating for 1,200 and the latest in AV equipment, and we are pleased to host our Opening Session of the 2015 Tri-Association Conference at this wonderful new facility.

Opening Remarks:

Tim Wolfe, CWEA President

Brian Gresehover, CSAWWA Chair

Karl Ott, WWOA President

Keynote Speaker:



Mark T. Kim, Chief Financial Officer, District of Columbia Water and Sewer Authority (DC Water)

Mr. Kim serves as Chief Financial Officer for DC Water. Mr. Kim joined DC Water in March 2013 from the City of New York, where he served as Deputy Comptroller for Economic Development and Assistant Comptroller for Public Finance, and previously as an investment banker at several global financial institutions.

WEDNESDAY, SEPTEMBER 2, 2015

Over his career, Mr. Kim has raised in excess of \$50 billion in the capital markets, including the first century bond issued by a municipal water utility and the first certified green bond issued in the US, which was awarded The Bond Buyer's 2014 Northeast Deal of the Year.

The deal also won the 2014 Award for Excellence in Government Finance by the Government Finance Officers Association (GFOA). This transaction financed DC Water's Clean Rivers Project: a 20-year, \$2.6 billion, and federally-mandated program to remediate CSOs in the District. When completed in 2025, this deep tunnel project is designed to capture and treat approximately 96% of the CSOs that are diverted annually into District waterways.

By receiving an independent second party opinion on the project's environmental benefits which included water quality improvement and climate change adaptation, DC Water was not only able to issue the first certified green bond in the US, but also diversify its investor base and attract a new pool of capital from 'socially responsible investors' to fund its infrastructure.

By issuing a century bond (a bond that matures in 100 years) to finance the Clean Rivers Project, which is engineered to last for over 100 years, DC Water was not only able to better match assets and liabilities on its balance sheet, but also spread the costs of the project over the successive generations of customers who will benefit from it as well as lower the costs for the current generation of ratepayers.

Currently, Mr. Kim sits on the Environmental Financial Advisory Board of the U.S. Environmental Protection Agency (EPA) and the Committee on Governmental Debt Management of the Government Finance Officers Association (GFOA), and he is a member of the Bars of the State of New York and the District of Columbia. Mr. Kim holds a B.A. from Northwestern University; J.D. from Cornell Law School; and Ph.D. in public policy from Harvard University.

CONFERENCE HIGHLIGHTS

WEDNESDAY, SEPTEMBER 2, 2015

7TH ANNUAL OPERATIONS CHALLENGE

PRE-COMPETITION MEETING

11:00 AM – 11:30 AM • Exhibit Hall

OPERATION OC2! – DAY 1

1:30 PM – 6:00 PM

Continues on Thursday (see Page 26 for details)

The 2015 Operations Challenge will be showcased in our Exhibit Hall this year, so witness the challenge, the anxiety, and high stakes as teams compete to represent CWEA in the national competition! Events highlight important skills possessed by operators, drawing teams from around the region each year. Teams show off their skills in a variety of competitions from laboratory testing to safety to process controls.

To register your team for this event go to:

<http://www.ChesapeakeTricon.org/Ops-Challenge.html>

Wednesday's events include:

- Process Control
- Laboratory
- Pipe Cutting Shootout (See page 25)

Sponsored by:



GREELEY AND HANSEN

FlowWAV



PASSARO
ENGINEERING
LLC



HDR

LUNCH WITH EXHIBITORS

Noon – 1:30 PM • Exhibit Hall

Sponsored by:



TECHNICAL SESSIONS

1:30 PM – 3:00 PM • Rooms 201 – 206

CONFERENCE HIGHLIGHTS

WEDNESDAY, SEPTEMBER 2, 2015

WEDNESDAY AFTERNOON BREAK/ VISIT EXHIBITORS

3:00 PM – 3:30 PM • Exhibit Hall

Sponsored by:



TECHNICAL SESSIONS

3:30 PM – 5:00 PM • Rooms 201 – 206

PIPE CUTTING SHOOTOUT

5:00 PM – 6:00 PM • Exhibit Hall

Don't miss the action and excitement as Ops Challenge team members race against the clock and against each other to see who can saw through an 8-inch diameter PVC pipe the fastest! Trophies and gift cards will be awarded to the fastest men's and women's cuts!

SHOOTERS' HAPPY HOUR

5:00 PM – 6:00 PM • Exhibit Hall

Spectators at the Pipe Cutting Shootout can choose to participate (in spirit!), by sampling the specially-concocted 2015 Tri-Association Conference cocktail – the "Pipe Cutter"! The recipe is top secret, which is very appropriate, as Fun Night at Seacrets® follows on the evening's agenda!

FUN NIGHT

7:00 PM – 11:00 PM (*ticketed event*)



Join over 500 fellow conference attendees for dinner and one of the biggest networking events of our conference at Seacrets®! Appetizers and a full dinner will be served from 7:00 to 8:30 pm. Each person will receive two drink tickets, but the bars will be open all four hours. Remember to bring your name badge to use on the Ocean City buses for a free ride back to your hotel. **Seacrets® tickets must be purchased by Tuesday, September 1, 2015.** No tickets will be sold at the door or individually on Wednesday at the conference. You must be 21 years old to attend.



Sponsored by:



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Environmental Engineers & Scientists

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CONFERENCE HIGHLIGHTS

THURSDAY, SEPTEMBER 3, 2015

REGISTRATION/CHECK-IN

7:30 AM – 5:00 PM • First Floor

CONTINENTAL BREAKFAST

7:30 AM • Exhibit Hall

Sponsored by:



EXHIBITS OPEN

7:30 AM – 4:00 PM • Exhibit Hall (Move Out 4:00 PM – 6:00 PM)

EWB SILENT AUCTION (continued from Wednesday)

8:00 AM – Noon • Exhibit Hall

See page 20 for more information.

TECHNICAL SESSIONS

8:30 AM – 10:00 AM • Rooms 201 – 206

7TH ANNUAL OPERATIONS CHALLENGE

9:00 AM – 4:00 PM • Exhibit Hall

OPERATION OC2! – DAY 2

The Operations Challenge continues with day two's exciting events:

- Maintenance Event
- Collection System Event
- Safety Event

All events and scoring are in accordance with the WEF 2015 Guidelines.

THURSDAY MORNING BREAK/ VISIT EXHIBITORS

10:00 AM – 10:30 AM • Exhibit Hall

Sponsored by:



TECHNICAL SESSIONS

10:30 AM – Noon • Rooms 201 – 206

THURSDAY, SEPTEMBER 3, 2015

BUSINESS LUNCHEONS

All conference attendees are welcome to attend the association Business Luncheon of their choice. A plated lunch is served as gavels are passed, and our leaders are recognized. Come and give our volunteers a big hand for delivering value to our members.

CSAWWA LUNCHEON

(ticketed event)

Noon – 2:00 PM • Room 217

The following awards will be presented at the CSAWWA Luncheon/Forum:

- Past Chair Award
- Life Member Awards
- Silver Drop Awards
- Gold Drop Awards
- Committee Chair Awards



Sponsored by:



AWWA National Representative



Brenda Lennox

Vice-President (2014-2016)

American Water Works Association

Brenda has been with Tualatin Valley Water District in Oregon for 20 years and has been an active AWWA member for 15 years. This includes efforts at the local, regional, and national level, including numerous committee chair and officer positions for the Pacific Northwest Section. Brenda served as Section Chair in 2010 and now as the Association Director.

At the Association level, and serving as Customer Service Committee Chair and team member, she developed curriculum for the Customer Service Certificate program. Utilizing this training program she has helped to champion, over 1800 classroom hours of training for customer service professionals in her region. Brenda serves on the Management & Leadership Division, and was appointed to the Board Standing Committee on Diversity Member Inclusion by AWWA President Jim Chaffee in 2013.

After attending Human Resource Management classes at Portland State University, Brenda served as a Human Resource Director in private sector before joining the water industry. At Tualatin Valley Water District,

CONFERENCE HIGHLIGHTS

THURSDAY, SEPTEMBER 3, 2015

she serves as Manager of Customer & Support Services. This includes oversight of customer service, billing, and the risk management program for the second largest water utility in Oregon.

Brenda lives in Warren, Oregon with husband Jerry and shares her competitive barrel racing passion with daughter Michele. She is also passionate about her career knowing that we are providing safe drinking water which is crucial for the life of our children, families, and communities. This passion has been recognized by her section as a recipient of the Heart and Soul Award in 2005 and Powell Lindsey Citation in 2013.

CWEA BUSINESS LUNCHEON

(ticketed event)

Noon – 2:00 PM • Room 215

The following awards will be presented at the CWEA Business Luncheon:

- Past President Award
- 5S Inductees
- Golden Raindrop
- Golden Manhole
- President's Award



Sponsored by:



WEF National Representative



Charles B. Bott, Ph.D., P.E., BCEE is a member of the 2014-2015 Board of Trustees for the WEF, an international organization of water quality professionals headquartered in Alexandria, VA.

Charles is Chief of Research and Development at the Hampton Roads Sanitation District (HRSD) in southeast Virginia, where he currently is managing research and development efforts for thirteen wastewater treatment plants (249 MGD combined capacity) and collection system. He is also an Adjunct Professor in the Charles E. Via, Jr. Department of Civil and Environmental Engineering at Virginia Tech (Blacksburg, Va.) and an Adjunct Professor in the Department of Civil and Environmental Engineering for Old Dominion University (Norfolk, VA).

A WEF member since 1997, Charles has held multiple leadership and committee roles within WEF. He has served as Chair and Vice Chair of the WEFTEC Program Committee; and participated on the Research Symposium

THURSDAY, SEPTEMBER 3, 2015

Subcommittee, the WEF Academic Committee and Municipal Wastewater Design Committee, and was Chair of the WEF Nutrient Removal Specialty Conference. Charles has also served on numerous project oversight subcommittees for the Water Environment Research Foundation and as principal investigator for several recent nutrient removal efforts.

Also an active member of the Virginia Water Environment Association (VWEA), Charles has served on the Education Committee for the past seven years and previously worked with the Student Activities Committee. He was the winner of the VWEA Outstanding Young Professional award. His other professional affiliations include the International Water Association, where he is the Secretary of the Nutrient Removal and Recovery Specialty Group. Charles is also currently serving on the Science and Technical Advisory Committee to the Chesapeake Bay Program Executive Council. He is an associate editor for the IWA journal Water Science and Technology.

Charles has received the WEF Outstanding Young Professional Award and WEF Harrison Prescott Eddy Medal as well as the American Society for Engineering Education Southeastern Section Outstanding New Professor Award, the Virginia Tech Outstanding Young Alumni Award, the Virginia Military Institute Thomas Jefferson Teaching Award, and the Virginia Military Institute Wilbur S. Hinman, Jr. '26 Research Award.

Charles is a registered Professional Engineer in the state of Virginia, a Board Certified Environmental Engineer, and Licensed Wastewater Treatment Plant Operator – Virginia Class I. He received a B.S. in Civil Engineering from the Virginia Military Institute, a M.S. in Environmental Engineering from the Johns Hopkins University, and a Ph.D. in Civil and Environmental Engineering from Virginia Tech.

WWOA BUSINESS LUNCHEON

(ticketed event)

Noon – 2:00 PM • Rooms 207 – 208

The following awards will be presented at the WWOA Business Luncheon:

- Past President Award
- Lifetime Membership Award



Sponsored by:



CONFERENCE HIGHLIGHTS

THURSDAY, SEPTEMBER 3, 2015

OPERATIONS CHALLENGE LUNCHEON

12:30 PM – 1:30 PM (by invitation only) • Rear Patio

TECHNICAL SESSIONS

2:00 PM – 3:30 PM • Rooms 201 – 206

TOP OPS

3:00 PM – 5:30 PM • Room 213

Fast action and fun characterize this annual competition as teams of water plant operators square off against each other. The quiz show format tests the understanding and quick thinking of operators as they answer challenging technical, regulatory and customer service questions. The room will be filled with the spirit of contest as the participants are cheered, judges are booed, and competitors vie for a chance to go to the National Top Ops Challenge at the National AWWA Conference – to be held in Chicago, Illinois, 2016. For more information contact Anthony Rocco of Howard County Bureau of Utilities, (410) 313-4997.

Congratulations to the
2015 National Champions,
Chesapeake's own WSSC
Patuxent Plant Team!!

THURSDAY AFTERNOON BREAK/ OPS CHALLENGE AWARDS

3:30 PM – 4:00 PM • Exhibit Hall

Join us as we recognize all of the Ops Challenge Teams, and the winners of this year's competitions.

Sponsored by:



TECHNICAL SESSIONS

4:00 PM – 5:30 PM • Rooms 201 – 206

EXHIBITOR MOVE OUT

4:00 PM – 6:00 PM

THURSDAY, SEPTEMBER 3, 2015

AWARDS PROGRAM

5:45 PM – 7:30 PM • Dockside Hall, First Floor, Bayside

Everyone is welcome to enjoy refreshments and help recognize this year's award-winning members! Meet and congratulate award winners while enjoying hot and cold hors d'oeuvres. Sodas, beer and wine are complimentary. Cash liquor bar will be available.

Sponsored by:



Louis Berger

5:45 PM – 6:15 PM Cocktails

6:15 PM – 7:30 PM Program: Our organizations have a number of prestigious awards to grant members who have demonstrated the very best of attributes that promote our missions. The following awards will be presented:

CSAWWA:

- Operator of the Year Award
- Top Ops Competition Awards
- Horizon Award
- Carl John Lauter Award
- George Fuller Award

CWEA:

- Operations Challenge Overall Winner
- WEF Awards
- WEF MA Award – Lab Analyst
- WEF MA Award – Bedell for Service to MA
- WEF MA Award – Hatfield for Operator/Professional Education

WWOA:

- The Barry Walter Award for Distinguished Service in Water Distribution
- Distinguished Service in Water Treatment
- Distinguished Service in Wastewater Collection Systems
- William Mclean Bingley Award For Distinguished Service in Wastewater
- Marlene Patillo Laboratory Award
- Distinguished Service in Industrial Waste Management
- Stanley Kappe Training Award
- WWOA Employer Recognition Award
- WWOA Award for Outstanding Personal Service to the Association

CONFERENCE HIGHLIGHTS

FRIDAY, SEPTEMBER 4, 2015

REGISTRATION/CHECK-IN

7:30 AM – 10:30 AM • First Floor

CONTINENTAL BREAKFAST

7:30 AM • Outside Rooms 201 – 206

Sponsored by:



Hatch Mott
MacDonald

TECHNICAL SESSIONS

9:00 AM – 11:30 AM • Rooms 201 – 206

LAST CHANCE FOR TECHNICAL SESSION

ATTENDANCE FORM SIGNATURES

11:30 AM – Noon • Information Desk, First Floor

ADJOURN/MONSTER DOOR PRIZES

11:45 AM • Information Desk, First Floor

CSAWWA BOARD MEETING & LUNCHEON

Noon – 2:00 PM • Room 208

CWEA BOARD MEETING & LUNCHEON

Noon – 2:00 PM • Room 213

WWOA BOARD MEETING & LUNCHEON

Noon – 2:00 PM • Room 207

WEDNESDAY, SEPTEMBER 2, 2015

Speakers' names are bold italics. Co-speakers' are bold. Co-authors' are italics.

ROOM 201 • ASSET MANAGEMENT

8:30 AM – 9:00 AM

Tracking Levels of Service and Operational Metrics to Align
Baltimore DPW's Asset Management Program with Stakeholders

David Sklar, MWH Global

Madeleine Driscoll, City of Baltimore, DPW

9:00 AM – 9:30 AM

An Integrated Approach Toward Comprehensive Facility Planning
for the Piscataway WWTP

Marija Peric, AECOM

Grant Davies, AECOM

Laurel Xiao, AECOM

Adebola Fashokun, WSSC

Philip Hwang, WSSC

9:30 AM – 10:00 AM

Preventive Maintenance Optimization, where 3R = Win win

Bethany Leavitt, CH2M HILL

Gian Cossa, DC Water

1:30 PM – 2:00 PM

Real Asset Management at Work –

Boots on the Ground Making a Difference in Baltimore, MD

Carlos Espinosa, MWH Global

Madeleine Driscoll, Baltimore City DPW, Office of Asset Management

2:00 PM – 2:30 PM

"Be Calm and AMP On" – Implementation of
an Asset Management Program for the City of Annapolis

Gage Muckleroy, PE, BCEE, GHD Inc.

Thora Burkhardt, PE, City of Annapolis

David Kerr, PE, BCEE, GHD Inc.

Mert Muftugil, PE, GHD Inc.

2:30 PM – 3:00 PM

Achieving ISO 55000 Certification –

Case Study Examples Show How to Leverage Best Practices

Linda Blankenship, ARCADIS U.S., Inc.

3:30 PM – 4:00 PM

On Demand Pump Condition Assessment and Optimization

Jeff M. Miller, PE, ENV SP, Schneider Electric

Dick McDonnell, Schneider Electric

TECHNICAL PROGRAM SCHEDULE

WEDNESDAY, SEPTEMBER 2, 2015

Speakers' names are bold italics. Co-speakers' are bold. Co-authors' are italics.

4:00 PM – 4:30 PM

WSSC's Emergency Intervention of a Highly Critical PCCP

Michael Jacobson, Pure Technologies

Greg Fick, WSSC

Mike Woodcock, WSSC

Muhammad Tak, WSSC

Jorge Rodriguez, Pure Technologies

4:30 PM – 5:00 PM

Big Data – Soup to Nuts

Scott Lehman, ARCADIS

Michael Cizenski, ARCADIS

ROOM 202 • WASTEWATER

8:30 AM – 9:00 AM

Design of a 600 MGD Aerated Grit Removal Facility

Kelly Baxter, Johnson, Mirmiran, and Thompson

Sarah Bunk, JMT

Mark Mazzochette, JMT

Gurminder Singh, City of Baltimore

9:00 AM – 9:30 AM

Design Model Meets World – Back River Design Combines
Physical and Design Models to Deliver Wet Weather Solution

L. Burton Curry, PE, Johnson, Mirmiran & Thompson

Art Shapiro, City of Baltimore, Department of Public Works

9:30 AM – 10:00 AM

Inside the Fence Investment Returns Outside the Fence Dividends:
Back River Wastewater Treatment Plant Headworks Improvements

Paul Deardorff, Johnson, Mirmiran and Thompson

Ben Asavakarin, Johnson, Mirmiran and Thompson

Gurminder Singh, City of Baltimore

Misrak Shiferaw, City of Baltimore

1:30 PM – 2:00 PM

Gravity Power: Using a Siphon to Save Energy at a Large MBR Facility

Kristi Perri, GHD Inc.

Thor Young, GHD Inc.

Graham Best, GE Water

Jeff Penny, GE Water

2:00 PM – 2:30 PM

Avoiding 'Wastewaterfalls' through Steady-State
Hydraulic Modeling and Operational Changes

Soraya Azahari, Phoenix Engineering

Chris Murphy, Johnson, Mirmiran, and Thompson, Inc.

Ben Asavakarin, Johnson, Mirmiran, and Thompson, Inc.

Chris Murphy, Johnson, Mirmiran, and Thompson

TECHNICAL PROGRAM SCHEDULE

WEDNESDAY, SEPTEMBER 2, 2015

Speakers' names are bold italics. Co-speakers' are bold. Co-authors' are italics.

2:30 PM – 3:00 PM

Clarion Borough, Pennsylvania Renovates Wastewater Treatment System to Manage Large Peaking Factor

Mark Prouty, AECOM

Jed Fiscus, Pennsylvania American Water Company

3:30 PM – 4:00 PM

Will You Be Ready When the Septage Trucks Come Rolling In?

Sebastian Smoot, GHD Inc.

Chris Saunders, Anne Arundel County DPW

Thor Young, GHD Inc.

Kristi Perri, GHD Inc.

4:00 PM – 4:30 PM

Multi-Stage Biofiltration for Onsite Wastewater Nitrogen Reduction

Daniel Smith, Applied Environmental Technology

Nathaniel Smith, University of California at Davis

4:30 PM – 5:00 PM

Centralizing Wastewater Treatment – Two Recent Examples Explored

John Cannon, PE, GHD Inc.

ROOM 203 • WATER RESEARCH

8:30 AM – 9:00 AM

Treatment Technologies for Removal of Emerging Water Contaminant: Iodinated X-ray Contrast Media (ICM)

Qinmin Zheng, The George Washington University

9:00 AM – 9:30 AM

Rejection of the Non-biodegradable Toxic Ions via Cross-flow Negatively Charged Polyamide/TiO₂ Composite Nanofiltration Membrane System

Guangshan Zhang, Harbin Institute of Technology

Qiao Wang, Harbin Institute of Technology

Peng Wang, Harbin Institute of Technology

9:30 AM – 10:00 AM

Reduction of Perchlorate in Aqueous Solution by Bimetallic Catalysts Electrodes

Ching-Lung Chen, University of Delaware

(Civil and Environmental Engineering)

ROOM 203 • WATER REGULATORY

1:30 PM – 3:00 PM

Regulatory Update:

Representatives from USEPA Region III, MDE, and DNREC will present on the latest regulatory updates and compliance issues. A panel discussion with Q&A will follow.

TECHNICAL PROGRAM SCHEDULE

WEDNESDAY, SEPTEMBER 2, 2015

Speakers' names are bold italics. Co-speakers' are bold. Co-authors' are italics.

ROOM 203 • WATER DISTRIBUTION

3:30 PM – 4:00 PM

A Strategic approach to Water Main Replacement in the City of Baltimore –
Need for a Programmatic Approach

Art Shapiro, City of Baltimore

Arthur Jones-Dove, Louis Berger

William Bettin, Louis Berger

4:00 PM – 4:30 PM

Identifying Critical Infrastructure through the Use of Hydraulic
Modeling to Support Asset Management and Master Planning

Laura Khouvilay, ARCADIS

Lisa Gresehover, WSSC

Patrick Parault, ARCADIS

Kimberly Six, WSSC

4:30 PM – 5:00 PM

The City of Baltimore's 50 Million Gallon Water Storage Tanks
for Lake Ashburton at Hanlon Park

Robert Ainslie, AECOM

Remi Urbonas, City of Baltimore, DPW

Mike Peterson, Hazen and Sawyer

ROOM 204 • COLLECTION SYSTEMS

8:30 AM – 9:00 AM

Reducing Collection System Flow Constraints through the Design
of a New 600 Million Gallon per Day Influent Pumping Station

Brian Balchunas, HDR

Gurminder Singh, City of Baltimore

Misrak Shiferaw, City of Baltimore

Meredith Welle, HDR

Ben Asavakarin, HDR

9:00 AM – 9:30 AM

Design Considerations for Pumping Station Upgrades

Jeff Sturdevant, GHD Inc.

Steven Carter, GHD Inc.

9:30 AM – 10:00 AM

Utilizing Oxygen in Gravity Collection Systems
for Odor and Corrosion Control

Christopher Milligan, PE, BlueInGreen, LLC

1:30 PM – 2:00 PM

Unique Alternative Project Delivery Saved Significant Costs and Time
for Conveyance System Rehabilitation and Provides Other Owner Benefits

William Hixon, PE, BCEE, ARCADIS U.S., INC.

Wayne Welch, ARCADIS U.S., INC.

TECHNICAL PROGRAM SCHEDULE

WEDNESDAY, SEPTEMBER 2, 2015

Speakers' names are bold italics. Co-speakers' are bold. Co-authors' are italics.

2:00 PM – 2:30 PM

Evaluation of Trenchless Technology for 60-in Diameter Brick Combined Trunk Sewer Rehabilitation

Daniel Jeon, O'Brien & Gere, Inc.

Don Simmons, O'Brien & Gere, Inc.

2:30 PM – 3:00 PM

Alternative Project Delivery for Sewer Collections Systems – Developing and Implementing the Sullivan's Island Turnkey Sewer Rehab Construction Program

Jim Shelton, ARCADIS

Greg Gress, Town of Sullivan's Island

3:30 PM – 4:00 PM

Wanna Learn about Design, Permitting and Construction Challenges of a Large SSO Consent Decree Program and also about Negotiating a Consent Decree Extension?

Prabhushankar Chandrasekeran, Greeley and Hansen LLC

Marcia Tucker, WSSC

Arturo Acevedo, Greeley and Hansen LLC

Jessica Wright, WSSC

Ed Cronin, Greeley and Hansen LLC

4:00 PM – 4:30 PM

Assessing Baltimore City Sewer Rehabilitation Projects Effectiveness through Flow Monitoring and Hydraulic Modeling Viewpoint

Jemil Yesuf, MWH Americas, Inc.

Jeffrey Pelletier, MWH Americas, Inc.

Wazir Qadri, Department of Public Works, City of Baltimore

4:30 PM – 5:00 PM

Optimizing Locality Sewer System Improvements with a Customized Regional Hydraulic Model

Matthias Wittenberg, CDM Smith

Theodore F. Garty, City of Chesapeake

Pradeep R. Sudini, CDM Smith

ROOM 205 • STORMWATER

8:30 AM – 9:00 AM

Integrating Local TMDLs with the Chesapeake Bay TMDL – The District of Columbia's Consolidated TMDL Implementation Plan

Tim Schmitt, LimnoTech

TECHNICAL PROGRAM SCHEDULE

WEDNESDAY, SEPTEMBER 2, 2015

Speakers' names are bold italics. Co-speakers' are bold. Co-authors' are italics.

9:00 AM – 9:30 AM

TMDL Work Plan for a Maryland State Agency –
Upcoming Tasks Leading to Permit Compliance

Leying Zhang, AECOM

Stacy Morin, AECOM

Suzanne Ciavola, AECOM

Robert Anderson, AECOM

9:30 AM – 10:00 AM

Hydraulic and Hydrologic Modeling Strategies for Green Infrastructure
in Support of Combined Sewer Overflow Reductions

Bethany Bezak, DC Water

Steve Skripnik, Limnotech

Edward Shea, Greeley & Hansen

1:30 PM – 2:00 PM

Implementing Operation & Maintenance Programs for Large
(And Rapidly Growing) LID Portfolios

Kevin Flynn, AKRF, Inc.

Lia Mastropolo, AKRF, Inc.

2:00 PM – 2:30 PM

Attempting to Meet the Chesapeake Bay TMDL Goals:

Anne Arundel County's Lessons Learned in Program Management

Erik Michelsen, Anne Arundel County

2:30 PM – 3:00 PM

Combining Grant Funding, Design Assistance, and Stormwater Credit
Programs to Leverage Private Sector Investment and Participation in
Green Infrastructure Implementation

Shandor Szalay, AKRF

3:30 PM – 4:00 PM

Ecological Enhancement Through Stream Stabilization and Restoration:
Case Studies in Urban and Rural Environments

Jeff Daniel, GHD Inc.

Steven Jones, GHD Inc.

Jim Moir, GHD Inc.

Laura Lawlor, GHD Inc.

4:00 PM – 4:30 PM

Floatables Away: A Case Study of Trash TMDL Implementation
and Baltimore City's Watershed 263 Program

Justin Lennon, Parsons Brinckerhoff

Prakash Mistry, Baltimore City Department of Public Works

WEDNESDAY, SEPTEMBER 2, 2015

Speakers' names are bold italics. Co-speakers' are bold. Co-authors' are italics.

4:30 PM – 5:00 PM

Stormwater Improvements and Public Outreach
in the Christina Watershed, Delaware

Gregg Iskra, Parsons Brinckerhoff

*LaTonya Gilliam, Delaware Department of Transportation,
NPDES Division*

Chin Lien, Parsons Brinckerhoff

Stefany Wang, Parsons Brinckerhoff

ROOM 206 • WATER

8:30 AM – 9:30 AM

UV-oxidation for Recalcitrant Chemical Contaminants:
Successes, Challenges and Future Applications

Terry Keep, Trojan Technologies

Adam Festger, Trojan Technologies

9:30 AM – 10:30 AM

Advanced Ozone Technology is a Practical, Low-Maintenance,
and Energy Efficient Option for Many Facilities

Louis LeBrun, PE, Pinnacle Ozone Solutions, LLC

ROOM 206 • WASTEWATER

1:30 PM – 2:30 PM

How to Squeeze 4 MGD of Capacity into a 2 MGD Bag:

A Detailed Comparison of Performance and Operational Costs
for Three High Biomass Inventory Processes

Kevin Frank, PE, AECOM

Grant Davies, AECOM

Ralph Eschborn, AECOM

3:30 PM – 4:30 PM

Impact of Sludge Pretreatment Technologies on Anaerobic Digester
Process Operating Conditions

Velmurugan Subramanian, AECOM

TECHNICAL PROGRAM SCHEDULE

THURSDAY, SEPTEMBER 3, 2015

Speakers' names are bold italics. Co-speakers' are bold. Co-authors' are italics.

ROOM 201 • ASSET MANAGEMENT

8:30 AM – 9:00 AM

How Much to Spend on Sewer Inspection, Renewal and Replacement?
A Risk-Based Assessment for DC Water

Seth Finnicum, ARCADIS

Jennifer Howells, ARCADIS

Seth Anderson, ARCADIS

Ella Garcia, DC Water

Daniel Frechette, DC Water

9:00 AM – 9:30 AM

A Value Driven Approach to Long Term Planning: DC Water's Experience
Getachew Melsew, DC Water

9:30 AM – 10:00 AM

The Role of GIS in Asset Management and Utilities Operations

Alan Foster, KCI Technologies, Inc

Joseph Murk, KCI Technologies, Inc.

10:30 AM – 11:00 AM

Leveraging Organizational Culture and Agility to Ensure
Successful Transition to World Class Asset Management

Gian Cossa, DC Water

11:00 AM – 11:30 AM

Innovative Water Main Replacement Planning Using a Combination
of Statistical Modeling and Condition Assessment

Celine Hyer, Arcadis

11:30 AM – 12:00 PM

Not All Data Is Created Equal: Impact to Decision Making

Craig Daly, Pure Technologies

Kate Zhao, Pure Technologies

Seth Guiekema, Johns Hopkins University

2:00 PM – 2:30 PM

Capital Region Water Asset Management Program

Gage Muckleroy, GHD Inc.

David Stewart, Capital Region Water

Mert Muftugil, GHD Inc.

2:30 PM – 3:00 PM

Corrosion Control and Asset Management –
The Basics of Cathodic Protection

John Smith, PE, BCEE, Soil and Land Use Technology, Inc.

(SaLUT Corrosion)

Andrew Fuller, Soil and Land Use Technology, Inc. (SaLUT Corrosion)

Daniel Smith, Soil and Land Use Technology, Inc. (SaLUT Corrosion)

TECHNICAL PROGRAM SCHEDULE

THURSDAY, SEPTEMBER 3, 2015

Speakers' names are bold italics. Co-speakers' are bold. Co-authors' are italics.

3:00 PM – 3:30 PM

Exposed Sewer Asset Assessment, Prioritization and Protection:
Rock Creek Park, Washington, DC
Eileen Straughan, Straughan Environmental, Inc.

4:00 PM – 4:30 PM

Planning for Tomorrow using ArcGIS Today
Andrew Stevens, Johnson, Mirmiran and Thompson
Chase Delans, Johnson, Mirmiran and Thompson
Daniel Shannon, Charles County Government,
Division of Resource and Infrastructure Management

4:30 PM – 5:00 PM

How Do You Spell Relief?
O-O: Operational Optimization through Industry Best Practice
Aditya Ramamurthy, ARCADIS
James Cherry, City of Virginia Beach DPU
Ryan Nagel, ARCADIS

5:00 PM – 5:30 PM

Using Open Communication and Detailed Planning to Minimize
ENR Construction Effects on Operation of a Major Facility
Chris Matthews, PE, ARCADIS US Inc.
David Pergrin, Jr. PE, Harford County, Maryland
Patrick Ludwig, Adams Robinson Enterprises, Inc.

ROOM 202 • WASTEWATER

8:30 AM – 9:00 AM

Design of UV System for Mixture of Industrial and Municipal Wastewater
Michael McWhirter, MWH

9:00 AM – 9:30 AM

Startup of Nutrient Removal in a 3.75 MGD SBR Plant
with Tertiary Cloth Filters and Microwave UV
Ned Talbot, O'Brien & Gere

9:30 AM – 10:00 AM

Disinfecting Wet Weather Flows in the 21st Century –
Design & Operational Challenges
Samuel Jeyanayagam, CH2M HILL

10:30 AM – 11:00 AM

Process Control Evaluation Provides Optimization and Energy Reduction
Matthew Gray, Keystone Engineers

TECHNICAL PROGRAM SCHEDULE

THURSDAY, SEPTEMBER 3, 2015

Speakers' names are bold italics. Co-speakers' are bold. Co-authors' are italics.

11:00 AM – 11:30 AM

Long-Term Energy Conservation at HRSD

Christina Alito, HDR

Rick Raikes, HRSD

Sherman Pressey, HRSD

Dave Reardon, HDR

Stephanie Spalding, HDR

11:30 AM – 12:00 PM

Greenhouse Gas Emissions From Wastewater Treatment –
A Comprehensive Review

William Ritter, University of Delaware

Rao Chitikela, Johnson Controls

2:00 PM – 2:30 PM

Analyzer Based Methanol Dose Optimization at Blue Plains AWTP

Ryu Suzuki, DC Water

Salil Kharkar, DC Water

Nicholas Passarelli, DC Water

Glenn Patterson, DC Water

Chris Reilly, DC Water

2:30 PM – 3:00 PM

Optimizing Nutrient Removal at a 75 mgd ENR Facility –
From Process Modeling to Practice

Wendell Khunjar, Hazen and Sawyer

Katya Bilyk, Hazen and Sawyer

David Wankmuller, Hazen and Sawyer

Paul Pitt, Hazen and Sawyer

3:00 PM – 3:30 PM

Achieving NR with Variable Industrial Loads: IFAS –
with a side (stream) of Chemical Treatment

Kristin Waller, O'Brien & Gere

Bill Meinert, O'Brien & Gere

4:00 PM – 0.6875

Wetland Treatment for Nutrient Removal: Grand Lake St. Mary's

Christopher Overcash, KCI Technologies, Inc.

Joseph Pfeiffer, KCI Technologies, Inc.

4:30 PM – 5:00 PM

Unique Challenges of Small Wastewater Treatment Plants Design

Natalia Dunlap, McCrone

Rob Sell, McCrone

TECHNICAL PROGRAM SCHEDULE

THURSDAY, SEPTEMBER 3, 2015

Speakers' names are bold italics. Co-speakers' are bold. Co-authors' are italics.

5:00 PM – 5:30 PM

Unique Design Yields Major WRRF Cost Savings:

The Strasburg, VA Experience

Jeffrey McBride, Wendel

Andrew Casolini Dal Bo, Wendel

Jay McKinley, Town of Strasburg

ROOM 203 • WATER DISTRIBUTION

8:30 AM – 9:00 AM

Case History of Cross-Town Tunnel Water Main Rehabilitation:

Review of Risks and Mitigations from Investigation through

Construction and Ultimate Return to Service

Duncan Mukira, DC Water

Peter Kottke, McMillen Jacobs Associates

9:00 AM – 9:30 AM

Planning, Design and Construction

of WSSC's Bi-County Water Supply Tunnel

Ismail Hanieh, PE, Black & Veatch

John Mitchell, WSSC

Ahmad Habibian, Black & Veatch

9:30 AM – 10:00 AM

The Next Chapter –

Non-Destructive Condition Assessment of Aerial Crossing Pipelines

Todd Williams, ARCADIS

ROOM 203 • WATER

10:30 AM – 11:00 AM

Keeping it Simple through Collaboration:

A Fast-Track and Cost Effective Utility Upgrade

Aaron Duke, Hazen and Sawyer, P.C.

Tom Barrack, Loudoun Water

11:00 AM – 11:30 AM

Program Management Toolbox for a Major New Water Supply Program

Nicolle Boulay, PE, Loudoun Water

John McGettigan, Greeley and Hansen

11:30 AM – 12:00 PM

Bringing ASR to the finish line – Reuse of Existing Infrastructure
to Develop a New Peak Demand Supply Source

Joseph Nattress, CH2M HILL

Evan Costas, CH2M HILL

Lee Tharps, CH2M HILL

Mark Lucas, CH2M HILL

TECHNICAL PROGRAM SCHEDULE

THURSDAY, SEPTEMBER 3, 2015

Speakers' names are bold italics. Co-speakers' are bold. Co-authors' are italics.

ROOM 203 • WATER TREATMENT

2:00 PM – 2:30 PM

Impacts of Ferric Chloride on WSSC's Potomac Water Filtration Plant

Michael McCarn, *EBA Engineering*

Mike Humke, *Environmental Resources, Inc.*

Dick Berich, *EBA Engineering*

Gary Moore, EBA Engineering

Abiola Akin-Ajayi, WSSC

2:30 PM – 3:00 PM

Chlorination and Biological Growth in Drinking Water Treatment Plant Filters – A Case Study

Narayan Venkatesan, *O'Brien & Gere*

Paige Keil, *O'Brien & Gere*

Richard Gell, *O'Brien & Gere*

3:00 PM – 3:30 PM

The Long-Term Lead and Copper Rule: Understanding Potential Changes and Impacts on Community Water Systems

Roger Arnold, *ARCADIS*

Rebecca Slabaugh, ARCADIS

Chris Hill, ARCADIS

Sean Chaparro, ARCADIS

ROOM 202 • WATER DISTRIBUTION

4:00 PM – 4:30 PM

It's a Blasting Good Time! Installation of a 30-inch HDPE Transmission Main in a Corrosive Environment, Through Rock, Under a River and Adjacent to an Active Failing Pipe

Bob Dudley, *O'Brien & Gere*

Paul DiMarco, Howard County Department of Public Works

4:30 PM – 5:00 PM

'Parting the Sea of Groundwater:'

Trenchless Installation of 36-inch Water Transmission Beneath Severn Run

Charles Bostek, *Heery International, Inc.*

Erica Whorley, *Heery International, Inc.*

5:00 PM – 5:30 PM

Planning and Executing a Successful Pipe Diver Condition Assessment

Russell Deason, *PE, Hatch Mott MacDonald*

Gert Van Der Walt, *DC Water and Sewer Authority*

Ethan Vital, *Pure Technologies*

TECHNICAL PROGRAM SCHEDULE

THURSDAY, SEPTEMBER 3, 2015

Speakers' names are bold italics. Co-speakers' are bold. Co-authors' are italics.

ROOM 204 • COLLECTION SYSTEMS

8:30 AM – 9:00 AM

Know Before You Go –

Lessons Learned Using Trenchless Alternatives to CIPP Sewer Rehabilitation
Silver Chai, *Howard County DPW, Bureau of Engineering,
Utility Design Division*

Joshua Gliptis, *Howard County DPW, Bureau of Utilities*

Jeff Welty, *Howard County DPW, Bureau of Utilities*

9:00 AM – 9:30 AM

Through a Levee and Under a Stream:

The Rehabilitation of a 102-inch Sewer Pipeline

Aaron Hughes, *Washington Suburban Sanitary Commission*

Edward Carpenetti, *Greeley and Hansen*

Tom DiLego, *Greeley and Hansen*

Glen Diaz, *WSSC*

Andy Fitzsimons, *WSSC*

9:30 AM – 10:00 AM

Risk Analysis for Sewer Assets in Creekbeds in the District of Columbia

Cory Winland, *Chester Engineers*

William Elledge, *DC Water*

10:30 AM – 11:00 AM

iSSES: A Smarter Way to Prioritize and Implement Gravity System

Condition Assessment Activities

Stephen Motley, *City of Virginia Beach*

11:00 AM – 11:30 AM

MAN-UP! The Manned Inspection of An Unreinforced Concrete Sewer Asset

Dennis Kachmarsky, *Kachmarsky, ARCADIS*

11:30 AM – 12:00 PM

Broadband Electromagnetic Survey of 59 Wastewater Force Mains
and What Did We Find?

Paul Sayan, *Louis Berger*

Thomas Kiefer, *Baltimore County Department of Public Works,
Bureau of Utilities*

2:00 PM – 2:30 PM

Horizontal Directional Drilling –

Challenges and Successes from the Design Engineer's Perspective

Curtis Miller, *KCI Technologies, Inc.*

TECHNICAL PROGRAM SCHEDULE

THURSDAY, SEPTEMBER 3, 2015

Speakers' names are bold italics. Co-speakers' are bold. Co-authors' are italics.

2:30 PM – 3:00 PM

Application of an External V-Wrap Carbon Fiber Technology
Aides Force Main Repair

Mark Notheis, CH2M HILL

*Natasha Schmidt, Fairfax County Department of Public Works
and Environmental Services*

*Randall Flowers, Fairfax County Department of Public works
and Environmental Services*

3:00 PM – 3:30 PM

Fiber Reinforced Polymer Technology
and Uplifting Forces in Wastewater Manholes

Benjamin Anderson, Johnson, Mirmiran, & Thompson

Andrew Stevens, Johnson, Mirmiran, and Thompson

Burt Curry, Johnson, Mirmiran, and Thompson

4:00 PM – 4:30 PM

Suppressing the Surge: A Two-Stage Modeling Approach
to Transient Analysis and Mitigation for a Deep CSO Storage Tunnel

Brandon Flora, Greeley and Hansen

Justin Carl, Greeley and Hansen

Peter Klaver, LimnoTech

Moussa Wone, DC Water

4:30 PM – 5:00 PM

Hydraulic Modeling to Meet Peak Flow Recurrence Requirements –
The New Trend

Matthias Wittenberg, CDM Smith

Charles I. Moore, CDM Smith

Phil Hubbard, HRSD

5:00 PM – 5:30 PM

WSSC Clarksburg Ten Mile Creek Sewer Facility Study –
Balancing Commission, County and Community Needs

Daniel Gilroy, CDM Smith

Kenneth Dixon, WSSC

Ramesh Alajangi, Environ-Civil Engineering Ltd.

ROOM 205 • SUSTAINABILITY

8:30 AM – 9:00 AM

Refining Green Infrastructure Design Standards for
Optimized Combined Sewer System Performance

Marita Roos, Greeley & Hansen

Bethany Bezak, DC Water

Seth Charde, DC Water

Carlton Ray, DC Water

TECHNICAL PROGRAM SCHEDULE

THURSDAY, SEPTEMBER 3, 2015

Speakers' names are bold italics. Co-speakers' are bold. Co-authors' are italics.

9:00 AM – 9:30 AM

84-Inch Diameter Gravity Pipeline Significantly Reduces Electrical Costs at 100 MGD Water Treatment Plant

Earl Schneider, Hatch Mott MacDonald

9:30 AM – 10:00 AM

Issues and Resolutions for Specifications of Cured-in-Place Pipe (CIPP) in DC Water Sewer Rehabilitation Projects

Chein-Chi Chang, DC Water and Sewer Authority

Mandy LeBlanc, Arcadis

Shirley Penaloza, DC Water and Sewer Authority

Renni Zhao, DC Water and Sewer Authority

Steve Bian, DC Water and Sewer Authority

10:30 AM – 11:00 AM

Life Cycle Assessment: Quantifying Sustainability Performance of Wastewater Treatment Plants

John Lenti, Greeley and Hansen

Dimitri Katehis, Greeley and Hansen

11:00 AM – 11:30 AM

Changing our Urban Infrastructure with Symbiotic Streetscapes

Mark Babbitt, PE, McKissack & McKissack

Christina McCallum, McKissack & McKissack

11:30 AM – 12:00 PM

An Assessment of an Alternative Pathway for Utilization of Biogas Derived from Anaerobic Digestion

Jonathan Gordon, HDR Inc.

ROOM 205 • BIOSOLIDS

2:00 PM – 2:30 PM

Not Just Hot Air:

Comparing and Selecting Biosolids Thermal Dryer Technologies

Thomas Kochaba, HDR

Lawrence Hentz, HDR

Joshua Gliptis, Howard County Bureau of Utilities

Christopher Moline, HDR

2:30 PM – 3:00 PM

Evaluation and Pilot Testing of a Direct Turbo Dryer at a 5.0 MGD Facility

Brandon Gott, GHD Inc.

Vincent Maillard, GHD Inc.

3:00 PM – 3:30 PM

Implementing Thermal Hydrolysis to Expand Solids Handling Capacity at the HRSD Atlantic Treatment Plant

Stephanie Spalding, HDR

TECHNICAL PROGRAM SCHEDULE

THURSDAY, SEPTEMBER 3, 2015

Speakers' names are bold italics. Co-speakers' are bold. Co-authors' are italics.

4:00 PM – 4:30 PM

Starting from Scratch –

Commissioning the First Thermal Hydrolysis Digesters in North America

Peter Loomis, CDM Smith

Engin Guven, CDM Smith

Christine deBarbadillo, DC Water

4:30 PM – 5:00 PM

Performance of the Two-Phase Anaerobic Digestion System
at Baltimore City's Back River WWTP

Bob Andryszak, PE, RK&K

Aaron Thomas, RK&K

DJ Wacker, RK&K

5:00 PM – 5:30 PM

Enhanced Anaerobic Digester Performance and Efficiency
with Improved Heating and Mixing

Brian Porter, Hazen and Sawyer

Jennifer Whitaker, Rivanna Water and Sewer Authority

Michelle Simpson, Rivanna Water and Sewer Authority

Ron Taylor, Hazen and Sawyer

Todd Johnson, Hazen and Sawyer

ROOM 206 • WATER

8:30 AM – 9:30 AM

Design Approaches for Creating Value and Overcoming Challenges
in Construction of a \$200 Million Surface Water Treatment Plant
Upgrade and Expansion

Brian Whitaker, CH2M HILL

Mark Eppich, City of Columbus, Division of Water

10:30 AM – 11:30 AM

125 MGD Intermediate Ozone Upgrade of the Hap Cremean WTP

Michael McWhirter, MWH

ROOM 206 • WASTEWATER

2:00 PM – 3:00 PM

Treatment Performance Results of Multiple Operating Modes
for a New Four-Stage Bardenpho Process at the Maryland
City Water Reclamation Facility

Kevin Nash, RK&K

Kelly Duffy, RK&K

Chris Saunders, Anne Arundel County

4:00 PM – 5:00 PM

Biosolids 'Quality' – What does it Mean and Why Does it Matter?

Lisa Boudeman, Material Matters, Inc

Jennifer Callahan, Material Matters, Inc.

TECHNICAL PROGRAM SCHEDULE

FRIDAY, SEPTEMBER 4, 2015

Speakers' names are bold italics. Co-speakers' are bold. Co-authors' are italics.

ROOM 201 • ASSET MANAGEMENT

9:00 AM – 9:30 AM

An Economical Program to Improve Water Quality
from Your Old Cast Iron Mains

Anna Santino, MWH Global

Madeleine Driscoll, P.E., City of Baltimore, Department of Public Works

9:30 AM – 10:00 AM

Streamlining Asset Management, Identifying Gaps
between Data Analysts and Engineers

Evan Pearce, Baltimore City Department of Public Works

10:00 AM – 10:30 AM

Corrosion Control and Asset Management –
Coating Design, Inspection and Maintenance Programs

John Smith, PE, BCEE, Soil and Land Use Technology, Inc.

Warren Wright, Soil and Land Use Technology, Inc. SaLUT Corrosion

10:30 AM – 11:00 AM

Overcoming Challenges Developing an Asset Management System
for a Containerized Cargo Port Terminal

Byron Dunlap, Cardno

11:00 AM – 11:30 AM

Leveraging Smart Data Collection with Asset Management Principles

Sara Ferrara, ARCADIS

Michael Cizenski, ARCADIS

ROOM 202 • WASTEWATER

9:00 AM – 9:30 AM

The New Gold Rush:

WSSC Proposal Turns Treated Wastewater Into Revenue

Michael Harmer, WSSC

Garrett Watkins, WSSC

Zohred Movahed, WATEK

9:30 AM – 10:00 AM

More than Metal: The Finer Points of Specifying Slide Gate Systems

Sarah Bunk, Johnson, Mirmiran & Thompson

Paul Deardorff, Johnson, Mirmiran & Thompson

Larisa Feldsher, City of Baltimore

Gurminder Singh, City of Baltimore

10:00 AM – 10:30 AM

Attack of The Blob! (Clarifier Algae) What to do when Dollars are at Stake

William Meinert, O'Brien & Gere

TECHNICAL PROGRAM SCHEDULE

FRIDAY, SEPTEMBER 4, 2015

Speakers' names are bold italics. Co-speakers' are bold. Co-authors' are italics.

10:30 AM – 11:00 AM

Hydrogen Sulfide Damage to the Primary Clarifiers
at the Back River WWTP

Michael Bezanson, Whitman, Requardt and Associates

Gurminder Singh, City of Baltimore DPW

Office of Engineering and Construction

11:00 AM – 11:30 AM

Identifying Potential Sites In Delaware
For The Application And Infiltration Of Wastewater

William Ritter, University of Delaware

Scott Andres, Delaware Geological Survey, University of Delaware

ROOM 203 • UTILITY MANAGEMENT

9:00 AM – 9:30 AM

Overcoming the Conservation Conundrum

Shireen Abdullah, Arcadis-US

John Mastracchio, Arcadis-US

9:30 AM – 10:00 AM

Rising to the Surface:

Why and How Water Utilities Should Use Social Media

John Lisle, DC Water

Andy Le, DC Water

10:00 AM – 10:30 AM

NYCDEP Creates an Accountable Manager Certification Program to Transfer
Critical Knowledge and Improve Capital Program Delivery Performance

Seth Yoskowitz, GHD Inc.

Aimee Edwards, New York City Environmental Protection

Bridget Kundmueller, New York City Environmental Protection

Susan Reisbord, GHD Inc.

10:30 AM – 11:00 AM

Information Management Governance –

Taming Data Chaos to Reach Informed Business Decisions

Aditya Ramamurthy, ARCADIS

Wayne Phelps, City of Virginia Beach DPU

Michael Rotunno, ARCADIS

11:00 AM – 11:30 AM

Contractor Prequalification is it RIGHT for Your Project?

Peter Schuler, Brown and Caldwell

Amanda Pollack, City of Salisbury, MD

FRIDAY, SEPTEMBER 4, 2015

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ROOM 204 • COLLECTION SYSTEMS

9:00 AM – 9:30 AM

A Pilot Study of Hydrological Model Enhancements to Improve Accuracy of Continuous Simulations that Result in Right-Sized Sewer Improvements for Baltimore

Jeffrey Pelletier, *MWH Global, Inc.*

Jemil Yesuf, MWH Global

Yongliang Jin, Khafra Engineering Consultants, Inc.

Wazir Qadri, City of Baltimore, DPW, Office of Eng. and Const.

9:30 AM – 10:00 AM

Consent Decree SRRR Collection System implementation using GIS for Baltimore County, MD

Ted Nadobny, *Louis Berger*

10:00 AM – 10:30 AM

Gaming the System – How to Choose Favorable (and Defensible) Design Conditions for Capacity and SSO Planning and Design

Eric Harold, *ARCADIS*

10:30 AM – 11:00 AM

Find That Cross Connection or Dye Trying – The Process of Identifying Cross Connections Between Sanitary and Storm Sewers

Eric Schroeder, *O'Brien & Gere Engineers*

George Clark, O'Brien & Gere Engineers, Inc.

11:00 AM – 11:30 AM

SSOs by The Numbers – Implications for Preventive & Corrective Strategies

Ann McPherson, *Black and Veatch*

Ahmad Habibian, Black and Veatch

ROOM 205 • BIOSOLIDS

9:00 AM – 9:30 AM

Analysis of Thermal Hydrolysis and Recuperative Thickening at UOSA

John Fountas, *CH2M*

Bob Angelotti, Upper Occoquan Service Authority (UOSA)

Tim Gallagher, CH2M

Todd Williams, CH2M

9:30 AM – 10:00 AM

Design and Integration of WAS Storage and Thickening Facilities at the Fort George G. Meade Wastewater Treatment Plant

Meredith Welle, *HDR*

Dan Tobocman, *American Water/Military Services Group*

William Powell, American Water/Military Services Group

Lawrence Hentz, HDR

Steve Keiber, HDR

TECHNICAL PROGRAM SCHEDULE

FRIDAY, SEPTEMBER 4, 2015

Speakers' names are bold italics. Co-speakers' are bold. Co-authors' are italics.

10:00 AM – 10:30 AM

Why Class A Does Not Always Make Cents:
Cost Model to Drive Biosolids Planning Decisions

Sebastian Smoot, GHD Inc.

Thor Young, GHD Inc.

Bill Shreve, Charles County Department of Public Works

Olin Straus, Charles County Department of Public Works

10:30 AM – 11:00 AM

Starting with a Product in Mind –

Biosolids Design Based on Beneficial Use Goals

Lisa Boudeman, Material Matters, Inc

Jennifer Callahan, Material Matters, Inc.

Lawrence Hentz, HDR Engineering Inc.

Josh Gliptis, Howard County

11:00 AM – 11:30 AM

Structuring Regionally-Based Class A Biosolids Processing Facilities
in Response to Regulatory, Public Policy and Economic Drivers

James Hecht, Synagro Technologies, Inc.

ROOM 206 • WASTEWATER/WATER

9:00 AM – 10:00 AM

Solutions of Operational Flexibility for Aerated Grit Amidst
Ambiguous Design Recommendations

Mark Mazzochette, JMT

10:00 AM – 11:00 AM

Renovation and Upgrading Potable Water Gravity Filter
Underdrains for Improved Performance, Longer Filter Runs,
and Backwash Water Minimization

Govert (Tad) Bassett, PE, AWI Filter



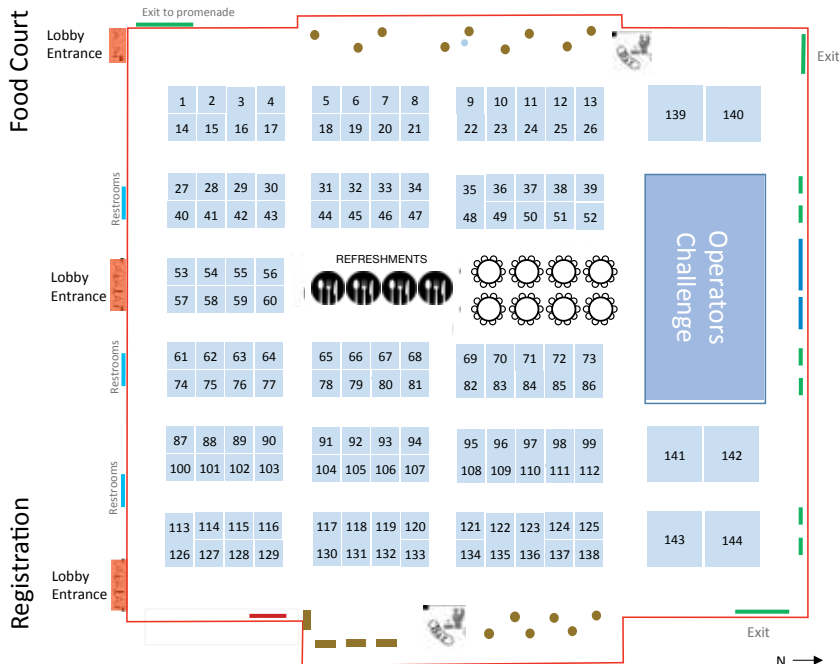


EXHIBIT HALL HOURS

Tuesday, September 1

(Exhibitor Move In)

10:00 AM – 5:00 PM

Tuesday, September 1

5:00 PM – 7:30 PM

Wednesday, September 2

7:30 AM – 6:00 PM

Thursday, September 3

7:30 AM – 4:00 PM

Thursday, September 3

(Exhibitor Move Out)

4:00 PM – 6:00 PM

EXHIBITOR LIST

Company Name	Booth No.	Company Name	Booth No.	Company Name	Booth No.
A. Y. McDonald Mfg. Co.	51	Badger Meter	63	Chesapeake Environmental Equipment ..	130, 131
A.C.Schultes, Inc.	100	Billfinger Water Technologies – AIRVAC	113	Cla-Val Co.	46
A.W. Rose Associates	7	Bingham & Taylor Corp.	18	Cornell Pump Company	75
ADS LLC	56	Borger Pump Company	141	Coyne Environmental Services	60
Alfa Laval	127	Bowen	93	DAS SOLUTIONS, LLC	82
AMERICAN Flow Control	89	C&D Municipal Sales, Inc.	138	Dixon Engineering, Inc.	80
Ames, Inc.	36, 37	CB&I Inc.	30	DN Tanks	47
Aqueous Sales	85	Cerlic Environmental Controls	39	DSI, Inc.	137
Avanti International	84	Charles Morrow and Associates	87	Ductile Iron Pipe Research Association	122

EXHIBITOR LIST

Company Name	Booth No.	Company Name	Booth No.	Company Name	Booth No.
Duke's Root Control, Inc.	14	KELSO Solutions	48	Riordan Materials.....	41, 42, 43
Dutchland, Inc.....	132	Kemira Water Solutions Inc.	95	Rockacy and Associates, Inc.	118, 119
EA Engineering, Science, and Technology, Inc., PBC.....	71	Kershner Environmental Technologies, LLC.....	69, 70	Rotork Controls, Inc.	102
EBA Engineering	78	Keystone Engineering Group, Inc.	24	Savin Engineers, PC	44
Electric Motor & Contracting Co., Inc.	2	Krausz USA.....	88	Shannon Chemical Corporation	38
Enovative Technologies.....	86	LAYNE INLINER	59	Sherwin-Williams Company	101
Envirep/TLC.....	1	LB Water	81	Sherwood-Logan & Associates.....	116
Environmental Operating Solutions, Inc.	94	Lystek International Inc.	49	Southern Design	66, 67
Ferguson Waterworks	12	Maryland Biochemical Company	33	SpectraShield Liner Systems.....	32
Ferguson Waterworks Meter & Automation Group	10	Maryland Center for Environmental Training....	92	STH Inc.	34
Flow Assessment Services, LLC	65	MBA.....	68	Swan Analytical USA	23
FlowWorks, Inc	83	Microbac Laboratories, Inc.....	26	Synagro.....	16
Fluid Solutions, Inc.	136	Milliken Infrastructure Solutions	112	T.E. Byerly Co. Inc.....	64
Fresh Creek Technologies, Inc.....	40	MLK & Assoc.	124, 125, 143	Tank Industry Consultants.....	27
Gardner O'Connor	135	Mr. Rehab, Inc.....	96	Thomas & Betts	106
GE Water – Zenon.....	128	Mueller Co.	13	Trumbull mfg	111
Geiger Pump & Equipment Co.....	53, 57	Mueller Systems	11	Ulliman Schutte Construction, LLC	20
George, Miles & Buhr, LLC	91	National Metering Services, Inc.	35	Underground Solutions	9
Hach Company	17	North East Technical Sales, Inc.....	31	Upstream Technologies.....	107
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BOARD MEMBERS & COMMITTEE CHAIRS

CSAWWA 2014-2015 Officers & Committee Chairs

Chair, Awards Chair, Finance Chair	Brian Gresehover
Chair Elect, Conference Mgmt. Co-Chair, Program Chair	Graeme Lake
Past Chair, Nominations, Strategic Planning	Nicolle Boulay
Secretary/Treasurer	Sophia Liskovich
Asst. Secretary/Treasurer, By-Laws Chair	Andy Cooper
Section Director (2014-2017)	John Moore
Trustee	Dennis Funk
Trustee	David Smith
Trustee	Rob Penman
Trustee	Jay Price
CTA Board Liaison	Gary Geck
Executive Director	Rachel Ellis
Chesapeake Magazine Editor	Jim Newbold
Chesapeake Magazine Deputy Editor	Emily Reeder
Customer Service	Angela Ballard-Landers
Diversification Management	Jonathan Madagu
Education and Training	Russ Dalton
Government Affairs	J. Scott Shippe
Manufacturer's Associates Council (MAC)	Eric Held
Membership	Brandon Flint
Operators	James (JC) Langley
Public Relations	George Rest
Safety	J. Michael Lewis
Section Communications, e-newsletter Editor	Teresa DiGenova
Spring Meeting	Nicholas Lewis
Strategic Outreach	Aaron Duke
Students	Radhika Wijetunge
Tri-Association Conference	Zainab Nejati
Utility Management Chair	Craig Daly
Water Distribution Chair	Jay Kirk
Water Quality	Jeremy Hise
Water Reuse	Brian Aylaian
Website and Social Media	Angela Perry
Young Professionals Chair	Lawrence Latour

CWEA 2014-2015 Officers & Committee Chairs

President	Timothy Wolfe
President-Elect	Chein-Chi Chang
Vice President	Kraig Moodie
Past-President	Burt Curry
Secretary	Meredith Welle
Treasurer	Jane Bayer
Trustee – MD	Paul Sayan
Trustee – DE	James Shelton
Trustee – DC	Tiffany Bain
WEF Delegate	Ted Deboda
WEF Delegate	Burt Curry
PWO Representative	Wayne E. Reed
CWEA Administrator	Cheryl Paulin
CWEA Tri-Association Conference Committee	Jane Bayer, Kristi Perri, Joan Fernandez, Gian Cossa
Awards Chair	Hiram Tanner
Biosolids and Residuals Management Chair	J. Scott Weikert
Budget/ Finance Chair	Ted Deboda
By-Laws and Directory Chair, (Business Practices Chair)	Al Will

BOARD MEMBERS & COMMITTEE CHAIRS

Charity Events Chair	Eric Held
Collection Systems Chair	Joan Fernandez
Government Affairs Chair	J. Scott Shipe
Laboratory Practices Chair	Clarence Beverhoudt
MAMWA Liaison	Jon Doane
MDE W/WW Board Liaison	Gregory "Scott" Harmon
Membership Chair	Rob Koechert
Nominations Chair	Paul Sayan
Plant O&M Chair	Prabhu Chandrasekeran
Public Education Chair	Mathew Roder
Publications Chair	Aaron Hughes
Short Course CWEA Coordinator	Wayne E. Reed
Spring Meeting Chair	Laura Jo Oakes
Stormwater Chair	Jane McDonough
Strategic Planning and Implementation	Ted Deboda
Student Activities Chair	Jennifer A. Moore
Technical Education Chair	Eric Coates
Training, Review and Evaluation (TRE) Chair	Gary Wagner
Water Reuse Chair	Ellen A. Frketic
Asset Management Chair	Gian A. Cossa
WERF Liaison	Pareesh Sanghavi
Young Professionals Chair	Russ Dalton

WWOA 2014-2015 Officers & Committee Chairs

President	Karl L. Ott
Past President	Morgan O'Dell
President-Elect	Jeff Deats
Vice President	Kevin Quinn
Secretary	Nick Shirodkar
Treasurer	Michael Emery
Assistant Treasurer	Karl L. Ott
Maryland Trustee	Kristy McAndrew
Delaware Trustee	Mark Kondelis
District of Columbia Trustee	Wayne Reed
Eastern Shore Section Director	Joe Godwin
Central Section Director	Wanda Proctor
Southern Section Director	Jimmy Robey
Western Maryland Section Director	Bruce Darner
District of Columbia Certification Liaison	Vacant
Delaware Certification Liaison	Sarah Smith
Maryland Certification Liaison	Bruce Darner
Awards Committee Chair	Kevin Quinn
By-Laws Committee Chair	Vacant
Chesapeake Tri-Association, Inc. Director	Karl L. Ott
Ecoletter Co-Editor	Floyd Johnson
Education Committee Chair	Sharita Lyle
Finance & Budget Committee Chair	Mike Emery
Interim Administrator	Rachel Ellis
Membership Committee Chair	DuWayne Potter
Nominations Committee Chair	Jeff Deats
Public Relations Committee Chair	Winfield P. McKell
Public Relations Committee Co-Chair	Kristy McAndrew
Short Course Committee Chair	Winfield P. McKell
Tri-Association Conference	DuWayne Potter
TRE Committee Representative	Ed Hogan
Webmaster	Anthony Rocco

BOARD MEMBERS & COMMITTEE CHAIRS

2015-2016 WWOA Slate of Officers (Nominated)

President.....	Jeff Deats (automatic advancement)
Past President	Karl Ott
President Elect.....	Kevin Quinn (automatic advancement)
Vice President.....	Mark Kondelis (automatic advancement)
Treasurer.....	Mike Emery
Maryland Trustee	Kristy McAndrew
Delaware Trustee	John Lynn
District of Columbia Trustee	Wayne Reed

CWEA 2015-2016 Slate of Officers

President.....	Chein-Chi Chang (automatic advancement)
President-Elect	Kraig Moodie (automatic advancement)
Past President	Timothy Wolfe (automatic advancement)
Vice-President	Jennifer Moore
MD Trustee.....	Laura Jo Oakes

Other Officers continuing their term of office are:

Secretary.....	Meredith Welle
Treasurer.....	Jane Bayer
DC Trustee.....	Tiffany Bain
DE Trustee	James Shelton
WEF Delegate.....	Ted DeBoda
WEF Delegate.....	Burt Curry
PWO	Wayne Reed
Chesapeake Tri-Association, Inc. Director, CWEA.....	Alan Will

CSAWWA 2015-2016 Slate of Officers

Chair.....	Graeme Lake
Past Chair	Brian Gresehover
Chair Elect.....	Sophia Liskovich
Secretary-Treasurer	Andrew Cooper
Assistant Secretary-Treasurer	Teresa DiGenova
Trustee.....	Rob Penman
Trustee.....	Dennis Funk
Trustee.....	Jonathan Madagu
Trustee.....	James Newbold
Section Director	John Moore



HOTEL INFORMATION

The Conference Committee has negotiated blocks of rooms at 12 Ocean City Hotels for the 2015 Tri-Association Conference. Conference rates are available Monday, August 30 through Thursday, September 3, 2015 (Friday checkout). Many of the hotels have offered reduced rates before and/or after the Conference. Room blocks at each hotel are limited and most room blocks close July 31, 2015, so make your reservations early to get your choice of hotel. To obtain the Conference rate, you must call the hotel directly and ask for the "Tri-Association Conference" rate.

Hotel & Location	Room Type*	Rates	Hotel Phone Number & Website
Best Western Ocean City Hotel& Suites 55th Street	H	\$120	443-664-4001 866-664-4004 www.bestwesternocsuites.com
	S	\$140	
Clarion Resort Fontainebleau Hotel 101st Street	H	\$124-\$154	410-524-3535 800-638-2100 www.clarionoc.com
	C	\$165-305	
Comfort Inn Gold Coast 112th Street	H	\$119	410-524-3000 www.comfortgoldcoast.com
Dunes Manor Hotel 28th Street	H	8/31 \$269, 9/1-9/4 \$159	410-289-1100 800-523-2888 www.dunesmanor.com
Flagship Oceanfront Hotel 26th Street	E	\$99	410-289-3384 800-837-3585 www.flagshipoceanfront.com
Grand Hotel 21st Street	E	\$129-\$199	410-289-6191 800-447-6779 www.grandhoteloceancity.com
La Quinta Inns & Suites 32nd Street	H	\$89	410-289-5762 www.laquintaoceancity.com
Holiday Inn Oceanfront Hotel 67th Street	E	\$199	410-524-1600 800-837-3588 www.holidayinnoceanfront.com
Princess Bayside 48th Street	H, E	\$89-\$139	410-723-2900 800-854-9785 www.princessbayside.com
Princess Royale (Conference Hotel) 91st St	S	\$133	410-524-7777 800-4ROYALE www.princessroyale.com
	C	\$190	
Quality Inn Oceanfront 54th Street	H	\$144 to \$169	410-524-7200 800-827-3586 www.qualityinn.com
Sea Bay Hotel 60th Street	H	\$80	410-524-6100 800-888-2229 www.seabayhotel.com
*H: Hotel, E: Efficiency, S: Suite, C: Condominium			

REGISTRATION INFORMATION

Registration

Conference registrations are only accepted through our online systems and links can be found at <http://www.ChesapeakeTricon.org/Registration.html>.

EARLY BIRD REGISTRATION RATES

Registration Options	Member	Certified Operator	Non-Member	Full-Time Student
Full Conference: Complete Package	\$280	\$230	\$330	N/A
Full Conference: No Ticketed Events	\$230	\$185	\$260	\$105
One-Day Registration: Wednesday	\$180	\$130	\$230	\$80
One-Day Registration: Thursday	\$180	\$130	\$230	\$80
One-Day Registration: Friday	\$80	\$80	\$130	\$55

Early Bird Registration (\$50 savings)

Ends August 14, 2015 at 11:59 PM

Standard Conference Registration pricing begins at the close of Early Bird Registration. *Full payment is required at the time of registration, and only a credit card or PayPal will be accepted.*

Full Conference: Complete Package

Includes access to Technical Sessions, Exhibit Halls, non-ticketed Social Events, one Ticket to Wednesday Night Seacrets® Event, and one Ticket to an Association Luncheon/Meeting (CSAWWA, CWEA, or WWOA).

Full Conference: No Ticketed Events

Includes access to Technical Sessions, Exhibit Halls, and non-ticketed Social Events.

One-Day Registration

Includes access to Technical Sessions, Exhibit Halls (Wednesday or Thursday Only), and non-ticketed Social Events for that day.

REGISTRATION INFORMATION

ADDITIONAL SELECTIONS

Pre-Conference Workshops Tuesday September 1, 2015

- *More Arrows for Your Quiver: Asset Management Tools for Utilities:*

9:00 AM to 4:30 PM, includes a box lunch

Early Bird Registration Cost: \$50 / Standard Registration Cost: \$60

- *Basics of Backflow Overview, and Cross Connection Control Plan Elements, Regulations, and Implementation:*

1:00 PM to 5:00 PM, includes a box lunch from Noon to 1:00 PM

Early Bird Registration Cost: \$30/Standard Registration Cost: \$40

5K Water for People Fun-Run/Walk Wednesday, September 2, 2015

The 5K WFP Fun-Run/Walk will be held on Wednesday, at 7:00 AM on the Boardwalk at the Grand Hotel (21st St.).

Early Bird Registration Cost: \$25/Standard Registration Cost: \$35

Fun Night at Seacrets® Wednesday September 2, 2015

Note: Seacrets® tickets must be purchased on-line prior to September 1, 2015. **No individual tickets will be sold at the conference on**

Wednesday or at the door. Must be 21 years or older to enter.

Cost: \$60 per ticket

Business Luncheons/Meetings Thursday September 3, 2015

All three organizations (CSAWWA, CWEA, and WWOA) will hold their annual business luncheons/meetings concurrently on Thursday.

Cost: \$40 per ticket

Guest Badges

All guests who wish to attend the non-ticketed Social Events, including breakfasts, breaks, receptions and other social events, will need to purchase a Guest Badge. Guest tickets are intended for those accompanying an attendee for non-business related purposes. All attendees wishing to conduct business must register for the conference.

Cost: \$60 per guest

REGISTRATION INFORMATION

Golf at the Ocean City Golf Club

The Pre-Conference Golf Outing will be held on Tuesday September 1, 2015 at the Ocean City Golf Club. Golf Registration is handled separately from Conference Registration. Registration for golf can be completed by visiting the Tri-Association Conference website:

www.ChesapeakeTricon.org/golf.html

Cost: \$100 per individual and \$360 for a foursome

Registrar

Condor Registration Services,
cta@condorregistration.net, (256) 852-4490

Payment Methods

All major credit cards and PayPal are accepted, but Tri-Association Conference no longer accepts cash or check payments. Upon completion of your online registration, you will receive an email confirmation showing what was purchased, the type of payment used, and the amount paid.

Refunds

Refund requests must be received by the Registrar in writing no later than **August 14, 2015 at 11:59 PM**. Refunds will be issued minus a 20% administrative fee. No refunds will be issued for requests received after August 14, 2015 at 11:59 PM.

On-Site Registration

On-site registration will be available at the convention center. Lines may be long for on-site registration so allow plenty of time to register before the sessions.

Ocean City Buses

All conference attendees can ride the Ocean City Buses free of charge by showing their 2015 Tri-Association Conference Name Badge between Tuesday September 2, 2015 at 2 PM; and Friday September 4, 2015 at Noon. Buses run approximately every 5 to 10 minutes (20 minutes between 3 AM and 6 AM).

General Information

For all other general conference information see the 2015 Tri-Association Conference website: *www.ChesapeakeTricon.org* or contact Rachel Ellis and *info@ChesapeakeTricon.org* or (443) 924-4671.

CONFERENCE NOTES

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CONFERENCE NOTES

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CONFERENCE NOTES

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- Water Supply
- Water Treatment and Transmission
- Wastewater Collection and Treatment
- Industrial Wastewater
- Hydrogeology and Groundwater
- Water Pumping and Storage
- Stormwater Permit Compliance
- Green Infrastructure
- Ecological Assessment and Restoration



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