



# 2024

## Tri-Association Conference

Roland E. Powell Convention Center  
Ocean City, MD  
August 27–30, 2024

*Learn, Network, Enjoy*





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# Welcome

## Welcome to the 2024 Tri-Association Conference

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Dear Water/Wastewater Colleagues and Friends,

It is my pleasure to welcome all of you to the 2024 Tri -Association Conference in Ocean City, MD. On behalf of the CSAWWA, CWEA, and WWOA organizations, and especially the hard-working Tri-Con Planning Committee, we are excited to have you here. As a long-time board member, it has always amazed me at the amount of work it takes to put together a conference of this magnitude. This year, as a first-time conference chair, I got to see firsthand some of the committee work that I had not previously seen. I would like to put out a huge thank you to the many (mostly volunteers) who have made this premier event possible and to their work colleagues and families who helped make space and time for their participation.

I am so grateful to the Tri-Con Planning Committee, the sponsors, the exhibitors, and the partners who have made this conference possible. And lastly, I want to thank all our attendees as you truly are the ones who make Tri-Con special and memorable! I hope you are as excited as we are to be part of this amazing event. I encourage you to try something new at the conference, whether it is participating in the silent auction, cheering on operators at one of the many competitions, stopping by to see the beautiful biosolids, or getting a new headshot. There are plenty of events that you probably have never been able to witness. Please make the most of the Tri-Association Conference Experience by trying something new and having fun. I look forward to seeing you at the conference and enjoying the knowledge, networking, and laughter that are the conference's trademarks.

*Gratefully yours,  
Erica Whorley – 2024 Chair,  
Tri-Con Planning Committee*

## General Information for Attendees

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 August 27 – August 30, 2024. 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](http://www.ChesapeakeTricon.org)) frequently for updated information regarding the program, hotel accommodations, registration, golf outing, Fun Run/Walk, and other valuable information.

The Conference Registration, Information Desk, and Exhibits will be located on the first floor of the Convention Center. We are also hosting our Opening Ceremony in the Performing Arts Center, conveniently located across from our Exhibit Hall. This year's Exhibit Hall will include more than 180 standard booths. Wednesday breakfast and breaks, Wednesday lunch, and Thursday breakfast and morning break will be held in the Exhibit Hall with the exhibitors. In addition, all Operator Competitions and the Water Taste Test will be held in the Exhibit Hall on Wednesday and Thursday.

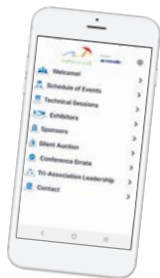
Don't forget to visit the FREE headshot booth for a memorial photo! The headshot booth is available on Wednesday in the Exhibit Hall, next to booth 219, from 10:00 AM until 4:00 PM.



# Welcome

Our 2024 Technical Program will include more than 120 presentations in five concurrent technical sessions including two one-hour engineering ethics courses. In addition to the technical presentations, Pre-Conference Workshops on Water Infrastructure Financing, Cybersecurity, and Demystifying Artificial Intelligence and Machine Learning – Tools for the Future will be held on Tuesday, August 27, 2024, offering three to four hours of operator continuing education in MD and DE.

The entire Tri-Association Conference brochure and other useful information is available on our Tri-Con Mobile App. Make sure to download the app to your phone!



*Mobile App sponsored by:*



## Cyber Café

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The Cyber Café will be located in Room 209 and will include PCs and a printer. The Cyber Café is meant to provide a quiet workspace. Please respect others using this space.

## Convention Center WiFi

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WiFi will be available at no cost throughout the convention center, including the Exhibit Hall!

To access the Exhibit Hall WiFi:

**SSID: CTAGuest2024    Password: HDR2024**

*Sponsored by:*



## 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 2024 Tri-Association Conference name badge can ride the Ocean City buses at no charge.

## Registration

Registration Location: First Floor Lobby

Tuesday: 10:00 AM to 4:00 PM (Exhibitors until 6:30 PM)

Wednesday: 7:30 AM to 5:00 PM

Thursday: 7:30 AM to 4:00 PM

Friday: 7:30 AM to 10:30 AM

### *Sponsored by:*



At registration, you will receive a conference lanyard containing your name tag, door prize tickets, and paid ticketed events.

### *Conference lanyards sponsored by:*



While you are registering, make sure you grab your souvenir Tri-Association tote bag!

### *Tote bags sponsored by:*





# Welcome

For the health and safety of all conference attendees, hand sanitizers are available at the information and registration desks.

*Hand sanitizer sponsored by:*

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## Attention Certified Operators

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The pre-conference workshops, technical sessions, and operator classes have been submitted for approval by the Maryland Board of Waterworks and Waste System Operators, and course codes have been assigned. 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** by visiting exhibitors in the Exhibit Hall. Operators and superintendents can meet and discuss available technologies with a minimum of 10 exhibitors. Exhibitors must complete and sign the *Exhibitor Product Briefing Form*, which is part of the *Technical Session Attendance Form*, for proper credit. Operators must obtain signatures from 10 exhibitors to receive the one 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, August 30, 2024 – no exceptions.

## Attention Professional Engineers

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As part of the continuing education requirements for Professional Engineers registered in Maryland, Delaware, 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. This will be the only time to obtain stamps that verify your attendance.



**Engineering Ethics in 2024:** Two one-hour presentations on engineering ethics will be provided as part of the technical program to assist PEs with meeting the requirement.

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, August 30, 2024 – no exceptions.

## **Awesome Door Prizes At Every Break!**

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All registered attendees receive door prize tickets with their badge. Each break has its own ticket, so be sure to get yours into the drawing bin! Location of each drawing is noted on the ticket.

## **Tri-Con Fundraising**

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The Tri-Association Conference has confirmed an updated philanthropic program for 2024, which is focused on supporting communities in both learning more about the water cycle and participating in the local industry and communities. This year's proceeds from fundraisers will help us deliver grants to two organizations. The first is Water For People ([www.waterforpeople.org](http://www.waterforpeople.org)) – a global nonprofit that helps people bring clean water and sanitation solutions to their communities for generation to come.

The second is a response to the Request for Proposals from a local water/wastewater/stormwater organization to benefit. For 2024, proceeds will be granted to the Maryland Reentry Resource Center ([www.mdrrc.org](http://www.mdrrc.org)) in partnership with the Chesapeake Conservation Landscaping Council. They will use the grant to provide soft skills and green infrastructure and landscape training to one cohort of 10 criminal justice involved participants, creating a ready workforce of restoration maintenance professionals. Participants will receive on-the-job training and supervised projects for three months with a stipend.

Tri-Con will support these donations through the following fundraisers:

**Golf Tournament**      **5K Fun Run/Walk**      **Silent Auction**

Your support of this Tri-Con endeavor is appreciated. We welcome your feedback: [info@chesapeaketricon.org](mailto:info@chesapeaketricon.org).

# Conference Planning Committee

**Bethel Abate**, *DC Water*

Technical Program;  
Opening Ceremony

**Raj Arora**, *American Pipe*

Door Prizes; Registration

**Clarence Beverhoudt**, *WSSC Water*

Awards; Convention Center Liaison;  
Silent Auction;  
Young Professionals

**Peter Bozick**, *George, Miles & Buhr*

Moderator & Monitors;  
Technical Program

**Priscilla Brown-Buchalla**,

*Black & Veatch*

Opening Ceremony (Chair)

**Chein-Chi Chang**, *DC Water*

*(Retired)*

Opening Ceremony

**Andy Cooper**,

*Whitman Requardt & Assoc.*

Door Prizes (Chair);  
Registration; Silent Auction

**Gian Cossa**, *DC Water*

Arrangements/Seacrets (Chair);  
Door Prizes; Opening Ceremony

**Teresa DiGenova**, *Black & Veatch*

Women in Water Networking;  
Opening Ceremony

**Allison Dyott**, *Anne Arundel County*

Signs (Co-Chair); Brochure;  
Opening Ceremony

**Mike Emery**, *DC Water (Retired)*

Signs (Co-Chair); Door Prizes;  
Exhibits; Registration;  
Silent Auction

**Jegnaw Essatu**, *WSSC Water*

Young Professionals (Chair);  
CWEA Ops Challenge

**Travis Gold**,

*Atlantic Coating Consultants*

Moderator & Monitors (Co-Chair)

**Pono Hanson**, *Brown & Caldwell*

Sponsorships (Chair)

**Eric Held**, *Charles Morrow & Assoc.*

Exhibits (Chair); CSAWWA Water  
Operator Competitions (Co-Chair);  
Door Prizes; Registration

**Andrew Jakubowitch**,

*Kleinfelder, Inc.*

Awards; Opening Ceremony

**Bob Johns**, *Ferguson*

CSAWWA Water Operator  
Competitions (Co-Chair); Exhibits

**Tara Jones**, *WSSC Water*

Moderator & Monitors (Co-Chair)

**Islam Khallaf**, *RJN Group*

CWEA Ops Challenge

**Kaylie Kramer**, *Brown & Caldwell*

Sponsorships

# Conference Planning Committee

**Carrie Kruger,**

*All 4 Him Environmental*  
Brochure (Chair);  
Fun Run/Walk (Chair); Golf

**Graeme Lake,** *Pennoni*

2024 Tri-Con Treasurer;  
Arrangements/Seacrets;  
Moderators & Monitors;  
Technical Program

**Rosanna LaPlante,** *WSSC Water*

Opening Ceremony

**Sophia Liskovich,**

*Gannett Fleming*  
Technical Program (Chair)

**Darcy Male,** *WSSC Water*

Women in Water Networking  
(Chair)

**Kraig Moodie,** *RJN Group*

CWEA Ops Challenge (Chair)

**Karl Ott,** *Charles Co. (Retired)*

Convention Center Liaison;  
Registration; Sponsorships

**Charles Poskas,** *JMT*

Fun Run/Walk

**Kevin Quinn,** *METCOM*

Awards (Chair); Brochure; Golf;  
Opening Ceremony

**Anthony Rocco,** *Howard Co.*

CSAWWA Top Ops (Chair)

**Mark Snyder,** *Mueller*

CSAWWA Water  
Operator Competitions

**Ray Streib,**

*Development Facilitators, Inc.*  
Silent Auction

**Chrissie Swann,** *Carollo*

CSAWWA Water Taste Test (Chair)

**Ron Tatariw,** *Tatariw, Inc.*

Golf (Chair)

**Erica Whorley,** *Brown & Caldwell*

2024 Tri-Con Chair;  
Communications (Chair);  
Silent Auction (Chair);  
Technical Program

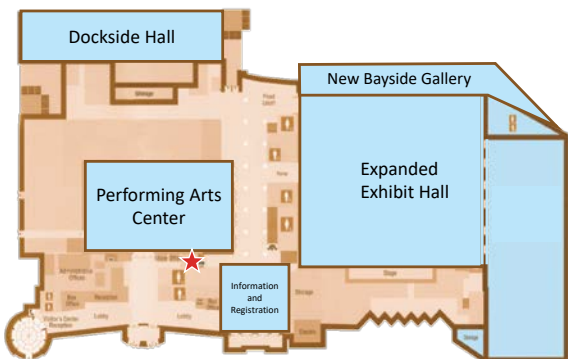
**Alan Will,** *JMT*

Convention Center Liaison (Chair);  
Photography (Chair)

***Thank you, committee volunteers!***

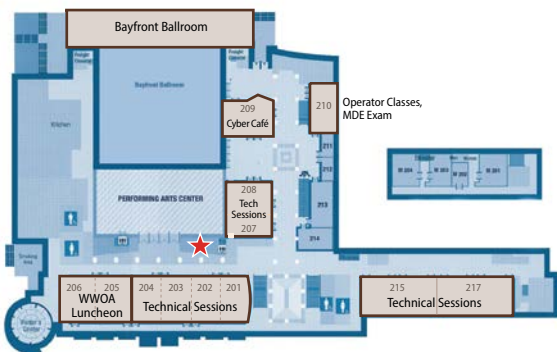
# Convention Center Maps

## First Floor



Escalators are out of service this year.  
Please note location of elevator indicated by the red star on both floors.

## Second Floor



Cyber Café: Room 209  
Technical Sessions: Rooms 201–204, 207–208, 215, 217  
Meeting Rooms: Dockside Hall (1st Floor), Bayfront Ballroom (2nd Floor)  
Operator Classes, MDE Exam: Room 210

# Conference At-A-Glance

## Tuesday, August 27

### Exhibitor Move-In

Exhibit Hall  
8:00 AM – 6:30 PM

### Registration

First Floor  
10:00 AM – 4:00 PM

### Golf Outing

Ocean City Golf Club, Berlin, MD  
Sign In: 11:00 AM  
Shotgun Start: 12:00 PM

### Pre-Conference Workshop

*Asset Management* – Rooms 201–202  
1:00 PM – 5:00 PM

### Pre-Conference Workshop

*Cybersecurity* – Rooms 203–204  
1:00 PM – 5:00 PM

### Pre-Conference Workshop

*Loan/Grant Funding by EPA*  
Rooms 207–208  
1:00 PM – 5:00 PM

### Operations Challenge – Equipment Set-up & Team Check-in

Exhibit Hall  
12:00 PM – 5:30 PM

### Operations Challenge – Process Control Event

Exhibit Hall  
5:30 PM – 6:30 PM

### Cyber Café Open Daily

Room 209  
Wed. – Thurs. 8:00 AM – 6:00 PM  
Fri – 8:00 AM – 10:30 AM



## Wednesday, August 28

### 5K Fun-Run/Walk

Boardwalk at the Grand Hotel – 21st Street  
7:00 AM

### Registration Check-In Open

First Floor  
7:30 AM – 5:00 PM

### Past Presidents/Chairs & Board Breakfast

Bayside Gallery (Invitation Only)  
7:30 AM – 8:30 AM

### Exhibits Open

Exhibit Hall  
7:30 AM – 5:00 PM

### Continental Breakfast

Exhibit Hall  
7:30 AM – 9:30 AM

### Silent Auction

Exhibit Hall/Online  
8:00 AM Open

### Operator Non-Process Class

*Basic Motor and Pump Maintenance*  
Room 210 – 8:00 AM – 12:00 PM

### Technical Sessions

Rooms 201–204, 207–208, 215, and 217  
8:30 AM – 10:00 AM

### Operations Challenge – Pre-Comp Mtg.

Exhibit Hall  
8:30 AM – 9:00 AM

### Operations Challenge

Exhibit Hall  
9:00 AM – 4:00 PM – Awards to Follow

### Residuals & Biosolids Beauty Contest

Exhibit Hall  
9:00 AM – 11:00 AM

### Headshot Booth

Exhibit Hall  
10:00 AM – 4:00 PM

### Break/Visit Exhibitors/DOOR PRIZES

Exhibit Hall  
10:00 AM – 11:00 AM

### Opening Ceremony/Keynote Address

Performing Arts Center – **DOOR PRIZE**  
11:00 – 12:00 PM

### Lunch With Exhibitors

Exhibit Hall  
12:00 PM – 1:00 PM

### Technical Sessions

Rooms 201–204, 207–208, 215, and 217  
1:00 PM – 2:30 PM

**Operator Process Class** – *Coagulation, Flocculation, Sedimentation & Filtration*  
Room 210 – 1:30 PM – 5:00 PM

### Break/Visit Exhibitors/DOOR PRIZES

Exhibit Hall  
2:30 PM – 3:30 PM

### Meter Challenge

Exhibit Hall  
2:30 PM – 3:30 PM

### Hydrant Hysteria

Exhibit Hall  
2:30 PM – 3:30 PM

### Technical Sessions

Rooms 201–204, 207–208, 215, and 217  
3:30 PM – 5:00 PM

### Shooters Happy Hour

Exhibit Hall  
4:00 PM – 5:30 PM

### Pipe Cutting Shootout

Exhibit Hall  
4:00 PM – 5:00 PM – Awards to Follow

**Operations Challenge – Breakdown, Pipe Tapping Move-in**  
5:00 PM – 6:30 PM

### Women in Water Networking Event

Bayfront Ballroom  
5:00 PM – 6:30 PM

### Fun Night!

Seacrets® (ticketed event)  
7:00 PM – 11:00 PM

# Conference At-A-Glance

## Thursday, August 29

<b>Registration Check-In Open</b> First Floor 7:30 AM – 4:00 PM	<b>WVOA Business Luncheon</b> Rooms 205–206 – (ticketed event) 12:30 PM – 1:45 PM
<b>Exhibits Open</b> Exhibit Hall 7:30 AM – 12:30 PM	<b>CWEA Business Luncheon</b> Bayfront Ballroom – 2nd Floor (ticketed event) 12:30 PM – 1:45 PM
<b>Continental Breakfast</b> Exhibit Hall 7:30 AM – 9:30 AM	<b>CSAWWA Business Luncheon</b> Dockside Hall – 1st Floor (ticketed event) 12:30 PM – 1:45 PM
<b>Silent Auction</b> Exhibit Hall/Online 7:30 AM – 10:30 AM	<b>Technical Sessions</b> Rooms 201–204, 207–208, 215, and 217 2:00 PM – 3:30 PM
<b>Technical Sessions</b> Rooms 201–204, 207–208, 215, and 217 8:30 AM – 10:00 AM	<b>Operator Process Class</b> <i>Process Math for Operators</i> Rooms 210 – 2:00 PM – 5:30 PM
<b>Operator Process Class</b> <i>Advanced Wastewater Class</i> Room 210 – 8:30 AM – 12:30 PM	<b>Top Ops</b> Dockside Hall – 1st Floor 2:30 PM – 4:30 PM
<b>Pipe Tapping – Men &amp; Women’s Teams!</b> Exhibit Hall 9:30 AM – 11:30 AM	<b>Break/DOOR PRIZES</b> 2nd Floor Lobby 3:30 PM – 4:00 PM
<b>Break/Visit Exhibitors/DOOR PRIZES</b> Exhibit Hall 10:00 AM – 11:00 AM	<b>Technical Sessions</b> Rooms 201–204, 207–208, 215, and 217 4:00 PM – 5:30 PM
<b>Water Taste Test</b> Exhibit Hall 10:00 AM – 11:00 AM	<b>Awards Program</b> Bayfront Ballroom – 2nd Floor – <b>DOOR PRIZE</b> 5:30 PM – 6:30 PM
<b>Technical Sessions</b> Rooms 201–204, 207–208, 215, and 217 11:00 AM – 12:30 PM	<b>YP Happy Hour</b> Alley Oops Midtown Bowling – 56th Street 6:30 PM – 8:30 PM (ticketed event)
<b>Exhibitor Move Out</b> Exhibit Hall 12:30 PM – 4:00 PM	<i>Thank you exhibitors!</i>

## Friday, August 30

<b>Registration Check-In Open</b> First Floor 7:30 AM – 10:30 AM
<b>Sunrise Yoga on the Beach – NEW!</b> Beach in front of Grand Hotel – 21st Street 6:15 AM – 7:30 AM
<b>Continental Breakfast</b> Second Floor 8:00 AM – 9:30 AM
<b>Technical Sessions</b> Rooms 201–204, 207–208, 215, and 217 9:00 AM – 10:00 AM
<b>MDE Operator Certification Exam</b> Room 210 9:00 AM – 12:00 PM
<b>Technical Sessions</b> Rooms 201–204, 207–208, 215, and 217 10:15 AM – 11:45 AM
<b>Last Chance for Technical Session Attendance Form Signatures!!</b> Information Desk 11:45 AM – 12:00 PM
<b>Adjourn/MONSTER DOOR PRIZES</b> Information Desk 12:00 PM

*\* Be sure to get your Technical Attendance Form signed before you leave!*

# Technical Program at-a-Glance

Wednesday, August 28, 2024

	Room 201-202	Room 203-204	Room 207-208	Room 215	Room 217
	Asset Management	Wastewater Treatment	Funding	Utility Management/Ethics	Collection Systems
8:30 AM	Exploring Wet-weather Solutions Amidst Strict NPDES Discharge Limits	Knock Out, Drag Out Fight: Centrifuge vs. Belt Filter Press – Title for Best Dewatering Technology to Squeeze Poop at Dunn Water Reclamation Facility!	AlexRenew's Interest in Loans to Deliver Alexandria's Largest Infrastructure Project	SAFETY FIRST: Fire Protection Assessments for WWTPs	From Catastrophe Crisis to Resilient Renewal: Leveraging Innovation to Accelerate the Emergency Design and Construction of a Failed 48-inch Force Main
9:00 AM	Funding to Mitigate Disasters with "Fed Funds"	Technology Spotlight: Updates from Ecoremedy Fluid Lift Gasification Projects in PA and WA	The Growing Water Workforce: Making the Case for Increased Water Infrastructure Funding	Ethics in Patenting for Professional Engineers	Outfall-ing Down!
9:30 AM	State Actions to Help Water Systems Achieve Sustainability through Asset Management Planning and Implementation	Aligning Cogeneration Sizing with the Plant and Client's Goals (Big Plant Edition)	How WIFIA Financing Benefits Communities		Streamlining Infrastructure: Relocating a Sewage Interceptor for a Major Highway Interchange
	Room 201-202	Room 203-204	Room 207-208	Room 215	Room 217
	Asset Management	Wastewater Treatment	Water Storage Tanks	Utility Management	Operations/Maintenance
1:00 PM	Cracks, Shrunken Windowsills, Water intrusion – It's Time for a Condition Assessment!	Trial By Fire: Conducting a Full-scale Pilot Study with an Emergent Disinfection Technology	Managing Elevated Water Storage Tank Rehabilitation: Lessons Learned from 100+ Tank Jobs in DelMarVa	Automation and Analysis: Data-Driven Strategies Improve Utility Processes and Analyze Performance at WSSC Water	Safety Regulations Relating to Internal Pipeline Inspection
1:30 PM	Advancing Facility Management with Customized Cloud-based Tools for Condition Assessment	Operational Insights from the Patapsco WWTP: Lessons in Process Control and Rehabilitation	A Challenging Tank Upgrade for a Rapidly Growing System Constructed through the Pandemic	Collaborative Project Delivery with Drone Technology	Impacts of Streamlined Data Visualization on Program Delivery
2:00 PM	Engineering Approach to Condition-Based Maintenance for Mechanical Equipment	Improving MBR Performance Monitoring and Maintenance with Control Chart Methodology	Controlled Trench Blasting at Druid Lake – How to Keep the Drinking Reservoir In-service and Not Scare the Zoo Animals	Using Data to Target Customer Engagement & Outreach Efforts in Your Financial Assistance Programs	Sewer Data Management and O&M Plan Optimization in the City of Baltimore's Department of Public Works
	Room 201-202	Room 203-204	Room 207-208	Room 215	Room 217
	Asset Management	Wastewater Treatment	Water Distribution	Utility Management	Collection Systems
3:30 PM	Asset Management – Building Information Management (BIM) 16th & Alaska Pump Station Pilot Demonstration	A PFAS Perspective – Laboratory, Landfills, and Biosolids	The Occoquan River Crossing Was a BLAST	Complying with AWIA 2025 Deadline	HRSD WWTP Primary Clarifier Influent & Effluent Pipe Rehabilitation
4:00 PM	How to Sweat the Small Stuff: A Risk Approach for Rehabilitating Small Diameter Sewers	Managing Wet Weather Challenges at the Pleasant Hills Authority WWTP	Pipe Bursting Proof of Use for Water Main Replacement: Insights from WSSC Water Pilot Project	The Importance of Cyber Resiliency in the Modern Utility: St. Louis MSD's Journey	How to Effectively Perform a Pipeline Health Check for Sewer Force Mains
4:30 PM	Manhole Inflow – The Uncomfortable Reality of How Much of Our Peak Wet Weather Flow is Related to Sheet Runoff	Not your Great, Great, Grandfather's Secondary Clarifier – New Clarifier Inlet Optimization Technology	CIPP Lining of Water Mains – A Cost-Effective Solution	Howard County Bureau of Utilities Water Isolation Tracer Tool	Post-COVID-19 Modern Trash Loading Proves Sewage Pump Clog Resistance Cannot Be Predicted by Impeller Througlet Size



# Technical Program at-a-Glance

Thursday, August 29, 2024 • Morning

	Room 201-202	Room 203-204	Room 207-208	Room 215	Room 217
	Asset Management	Wastewater Treatment	Water Treatment	Utility Management	Collection Systems
8:30 AM	Refining PCCP Inspections by Understanding Electromagnetic Field Interactions	Challenging the Retention Time of Anaerobic Digestion Using Thermal Hydrolysis Pretreatment	Rejuvenating the Montebello Water Filtration Plant for the Next 100 Years of Service	Lessons Learned from Operational Excellence and Collaborative Culture at the Patapsco Wastewater Treatment Plant	Kicking It Up a Notch: Year 2 in Modernizing CSO Management
9:00 AM	Water Main Predictions: How Good Old Statistics Still Help in the Age of AI	Challenges of Low BOD/TSS Ratios in Wastewater Treatment: A Case Study Analysis	Closing the Loop on PFAS: An Overview of PFAS Destruction Technologies to Expand PFAS Mitigation Efforts in Water & Wastewater	Tackle Brain Drain: Howard County's Approach to Capture Institutional Knowledge	Best Practices Learned from 20 Years of Large Diameter PCCP Force Main Monitoring and Management
9:30 AM	How to Predict the Uncertain: DC Water's Use of Monte Carlo Analysis to Quantify Lead Service Lines in DC	Anaerobic Digestion with H <sub>2</sub> S & Nutrient Control – What If Your Digesters Were the Sidestream?	Programmatic Rapid Deployment of Small-Scale PFAS Wellhead Treatment	Work at Baltimore City DPW – Why Would You Do That?	Leveraging Real-Time Performance Data for Daily Operations & Long-Term Planning of Wastewater Collection Systems
	Room 201-202	Room 203-204	Room 207-208	Room 215	Room 217
	Asset Management	Wastewater Treatment	Water Treatment	Utility Management	Collection Systems
11:00 AM	Indirect Corrosion Inspection for Water Pipelines	How Low Can We Go? Successful Low DO Operations for Biological Nutrient Removal at Pomona WRF	Evaluating the Presence of PFAS and Gen-X Chemicals in a Raw Water Source and Developing a Treatment Strategy for a 12 MGD Water Treatment Plant	Delivering on a Critical Linear Infrastructure Project for Garrett County: Meeting Constructability Challenges while Providing Resiliency	Collaborative Delivery and Innovation Pass the Test of an At-Risk Wastewater Interceptor Rehabilitation Challenge
11:30 AM	What Goes First? A Prioritization Approach for Very Large Sewers	Innovative New Media with Advanced Deep Bed Primary Filtration Makes Significant Strides	How Pilot Testing Changed the Design of a PFAS Treatment Facility	Understanding Non-Revenue Water Using AWOL	Critical Thinking and Swift Mitigation in Saving a Century Old Masonry Trunk Sewer in Washington, DC
12:00 PM	Comparison & Validation of Water Pipe Condition Assessment Results on a 16-inch Cast Iron Pipe from Two Inspection Technologies	Retrofitting Solutions for High and Variable Airflows Using Low-Pressure Membrane Diffusers	Effective PFAS Removal and Waste Reduction using a Novel Micro-adsorbent Slurry and Separations Technology	A Sustainable Strategy for WSSC's Water Supply and Treatment: Climate Impacts, Water Quality Trends and Regulatory Challenges	Repairing History – DC Water's Experience Designing Rehabilitation of a 150-yr Old Sewer

# Technical Program at-a-Glance

Thursday, August 29, 2024 • Afternoon

	Room 201-202	Room 203-204	Room 207-208	Room 215	Room 217
	Asset Management	Wastewater Treatment	Water Treatment	Utility Management	Operations/Maintenance
2:00 PM	Charm City Criticality: Optimizing Valve Management in Baltimore	Out with the Old and In with the New	Ending the Use of Chlorine Gas at Major City of Baltimore Drinking Water Sites – How to Improve Safety and Reduce Chemical Demands	Holistic Design Processes and Post Construction Monitoring of In-Stream Asset Protection	Spinning Ain't Winning – Properly Setting Minimum Speeds on VFD Driven Pumps
2:30 PM	Navigating the Transition to ESRI's Utility Network	Optimizing DC Water's Aerated Grit Chambers with Innovative TruGrit Approach	Lead Sampling Plan Development for Schools and Childcare Facilities Under the LCRR	Collaboration in Mitigating SSO Risk in Buried Stream Crossing	Cathodic Protection Installation and Testing
3:00 PM	Smart Geospatial Analytics: Revolutionizing Corrosion Management in Water and Wastewater Infrastructure	An Innovative Lime Slurry System Provides Low Cost, Transitional & Contingency Solutions for Biosolids Stabilization	Leveraging BAC to Remove HAA in Drinking Water – Innovative DBP Treatment Pilot Testing to Supplement Charles County's Water Supply	Cherry Hill Drainage Improvement to Mitigate Flooding in Baltimore's Cherry Hill Neighborhood	Phased Construction for Expedited Gravity Thickener Rehabilitation
	Room 201-202	Room 203-204	Room 207-208	Room 215	Room 217
	Asset Management	Wastewater Treatment	Water Treatment	Utility Management	Stormwater
4:00 PM	Streamlining Sustainability: A Tailored Asset Management Approach for Small Community Water Systems	Bay-Driven Regulations: Innovative Nutrient Mitigation Strategies for Wilmington WWTP	Novel UVLED Reactor for Indirect Potable Reuse	Lead Free DC – Public/Private Partnership, Lead Pipe Replacement Program (LPRAP)	Predicting Interior Flooding: Building an Integrated Flood Model for Washington, DC
4:30 PM	Where Is That File? Document Management Tools & Methods for Inspection and Condition Assessment Projects	Continuous Flow Aerobic Granular Sludge Process Helps with Sustainable Upgrades at WRRFs	What Happens During Drought? Impacts on Sourcewater and Treatment	What Happens When Your Lead Inventory Map Needs to Account for Data that Is "Mostly" Correct: How DC Water Updated its Inventory Map	Stormwater Utility: Revenue Generation and Expenditure Patterns in the Chesapeake Bay Area
5:00 PM	Maximizing Project Success through Integrated Asset Management and Strategic Planning: Case Study DC Water	Can You Spiral Down to ENR Easily... MABR Can Help You Reach a TN of 3 with No Additional Carbon	Carbon-Based Advanced Treatment brings (Direct) Potable Reuse to the East	A Lead and Copper Rule Service Line Inventory Through a Digital Approach: A Case Study from the City of Rockville, MD	Using a Digital Twin and AI to Predict Surface Water Quality and Flood Events

# Technical Program at-a-Glance

Friday, August 30, 2024

	Room 201-202	Room 203-204	Room 207-208	Room 215	Room 217
	<b>Utility Management</b>	<b>Wastewater Treatment</b>	<b>Ethics</b>	<b>Utility Management</b>	<b>Stormwater</b>
9:00 AM	How to Avoid the #1 Mistake in Public Communications Before Your Service Line Inventory Rollout	Growing Up Together Lessons Learned During Startup: Commissioning Sidestream Deammonification Concurrent with THP Digestion	Ethics Regulations and Cases in Engineering	Assessment of First Floor Elevations Using Unmanned Aerial Vehicles	Frederick County's Approach to Water Resources Element Updates
9:30 AM	Equitable Infrastructure Investments for Equitable Outcome – DC Water's Experience	Steam Treatment and Thermal Hydrolysis: A Synergistic Approach in Solids Management		Building Climate Resiliency into Flood-Prone Facilities	Leveraging Private Ownership and Real-Time Control for Cost-Effective Stormwater Treatment in Howard County, MD
	Room 201-202	Room 203-204	Room 207-208	Room 215	Room 217
	<b>Utility Management</b>	<b>Systems Operations</b>	<b>Wastewater Treatment</b>	<b>Utility Management</b>	<b>Stormwater</b>
10:15 AM	Innovative Project Delivery: CMAR Design-Build for Success in Water Projects	An Instrument Calibration Program Is Key to Quality Water Treatment	PFAS: The Latest on an Ever Evolving Regulatory Landscape – National and State Update	Preparing Your Water Utility for a Lower Carbon Future	A 21st Century Tool to Address 21st Century Flooding: Baltimore's Approach to Identifying Concern Areas and Solutions
10:45 AM	Soooo... How Did Your First CMAR go?	Staring into the Abyss: Using Remote Operated Submarines to Safely Inspect Underwater Infrastructure	An Award-winning Gasification Technology Shows Capacity of destroying PFAS In Biosolids: Australian Initiative to Transform Sewage Sludge into Energy	Planning for The Future: Coastal Resilience Modeling For Public Utilities	Integrated Short- and Long-Term Approaches to Reduce Nutrient Loading at a Major Recreation Lake Amenity
11:15 AM	Why Would You Use Multi-prime Contracting When You Don't Have to?	Opening Opportunities with Cross-Connection Thinking – DC Water's Path to Enhancing their CCC Program	PFAS in Biosolids: What Pros Need to Know	Building Resilience and Adapting to Climate Change Impacts for Drinking Water & Wastewater Utilities	Stormwater Management for Flood Resiliency: A Comparison of Approaches

## Tuesday, August 27, 2024

### Pre-Conference Workshops

	Room 201-202
1:00 PM – 5:00 PM	<p><b>Pre-Conference Workshop:</b> Asset Management</p> <p><b>Non-Process Credit</b></p>
	Room 202-203
1:00 PM – 5:00 PM	<p><b>Pre-Conference Workshop:</b> Cybersecurity</p> <p><b>Non-Process Credit</b></p>
	Room 207-208
1:00 PM – 5:00 PM	<p><b>Pre-Conference Workshop:</b> Funding, US EPA</p> <p><b>Non-Process Credit</b></p>

## Operator Classes

### Room 210, Second Floor

Wednesday, August 28
<p>Basic Motor and Pump Maintenance (Non-process) <b>8:00 AM – 12:00 PM</b></p> <p>Coagulation, Flocculation, Sedimentation &amp; Filtration (Process) <b>1:30 PM – 4:30 PM</b></p>
Thursday, August 29
<p>Advanced Wastewater Class (Process) <b>8:30 AM – 12:30 PM</b></p> <p>Process Math for Operators (Process) <b>2:00 PM – 5:30 PM</b></p>

# Conference Highlights

**Tuesday, August 27, 2024**

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## EXHIBITOR MOVE-IN

8:00 AM – 6:30 PM • Exhibit Hall

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## REGISTRATION/CHECK-IN

10:00 AM – 4:00 PM • First Floor Lobby (Exhibitors until 6:30 PM)

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## GOLF OUTING BENEFITTING

### NON-PROFIT WATER ORGANIZATIONS

11:00 AM Check-In, 12:00 PM Shotgun Start

Format: Scramble

### Ocean City Golf Club

11401 Country Club Drive, Berlin, MD

Stop off in nearby Berlin, Maryland to play on the beautiful and challenging Newport Bay course at the Ocean City Golf Club. Proceeds from the Golf Outing will benefit two well-deserving not-for-profit organizations. Prizes will be awarded at the end of the golf outing, and winners will be posted at the Conference Information Booth. Unclaimed prizes will be posted and can be claimed at the Conference Information Booth. Individual and foursome golf registration fees are \$100 and \$400, respectively, and include a box lunch, driving range, green fees plus cart, and prizes.

*Sponsored by:*

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# Conference Highlights

## Tuesday, August 27, 2024

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### GOLF OUTING (CONTINUED)

#### **Inclement Weather Cancellation**

Ocean City Golf Club staff will make the determination on whether the golf course is unplayable due to inclement weather. Contact OCGC directly at 410-641-1779 if threatening or severe weather is forecasted to determine if the golf outing is cancelled. Credit card refunds



will be issued to those who request one in writing directly to Ron Tatariw ([rtatariw@tatariw.com](mailto:rtatariw@tatariw.com)) by 6:00 PM on September 6, 2024 if, and only if, the golf outing is cancelled due to inclement weather. We will consider the registration fee of those golfers who do not request a refund as a donation, thanking you in advance, to not-for-profit water organizations.

#### **Back Again for 2024 – 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](http://www.chesapeakeetricon.org/golf.html).

Individual registration fee: \$100

Four-some golf registration fee: \$400

For additional information, contact Ron Tatariw, Tatariw, Inc., at 703-716-0770 or by email: [rtatariw@tatariw.com](mailto:rtatariw@tatariw.com).

Directions to golf course from Ocean City: Go west on Route 50 to third traffic light and then 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.

# Conference Highlights

## Tuesday, August 27, 2024

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### PRE-CONFERENCE WORKSHOPS

The 2024 Tri-Association Conference Committee is pleased to offer three separate Pre-Conference Workshops this year. Topics include Demystifying Artificial Intelligence and Machine Learning, Cybersecurity, and Water Infrastructure Financing. You must register for these workshops as part of your conference registration. *The workshops are subject to cancellation dependent upon the number of registrants. If cancelled, registrants will be notified, and workshop payments will be refunded in full.*

\$45 early-bird registration/\$50 standard registration.

#### Pre-Conference Workshop:

#### **Demystifying Artificial Intelligence and Machine Learning – Tools for the Future**

*Presented by the Asset Management Committees of CSAWWA & CWEA*

**1:00 PM – 5:00 PM • Rooms 201–202**

Artificial Intelligence (AI) and Machine Learning (ML) are becoming more present in our day-to-day lives, from the generation of meeting minutes to predicting pipeline failure. These useful tools offer a range of benefits, providing efficiency and optimization to professionals but can be intimidating or confusing to those unfamiliar. AI and ML come with new terminology, a broad scope of applications, a rapid pace of development (with new advancements and applications emerging frequently), and potential ethical concerns surrounding bias, privacy, or job displacement. To address this, it is essential to provide clear, accessible explanations of AI and ML concepts and applications.

In this workshop, utility professionals will embark on a journey to demystify the applications of AI and ML. During the session, we aim to provide a foundational understanding of these innovative technologies and their applications in the water and wastewater industries.

No prior technical knowledge is required – just a curiosity to explore the potential of these tools.\*

*\*Description written with the assistance of ChatGPT*

# Conference Highlights

## Tuesday, August 27, 2024

### PRE-CONFERENCE WORKSHOPS (CONTINUED)

#### Presenters:

- **Craig Daly**, Chief of Water Facilities Division, City of Baltimore DPW
- **Kate Zhao**, Global Product Manager, Xylem
- **Travis Wagner**, Vice President, Digital Consultant, Trinnex
- **Bryan Samuels**, Chief of Utility Maintenance, City of Baltimore DPW

#### Pre-Conference Workshop: Cybersecurity

*Presented by Kevin M. Morley*

**1:00 PM – 5:00 PM • Rooms 203–204**

The water sector has been the subject of increased targeting by cyber threat actors for monetary gain and comprising continuity of operations. This reality requires proactive measures to mitigate vulnerabilities and develop incident response capabilities by all types of water utilities. Cyber threats do not discriminate by utility size or type. This workshop is designed to empower utility owner/operators to understand the threat, assess vulnerabilities, leverage tools to mitigate risks and prepare to respond.



American Water Works  
Association

#### Presenter:

**Kevin M. Morley**, PhD, Manager, Federal Relations for the American Water Works Association (AWWA)





# Conference Highlights

## Tuesday, August 27, 2024

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### PRE-CONFERENCE WORKSHOPS (CONTINUED)

#### Pre-Conference Workshop:

#### Water Infrastructure Financing

*Presented by the U.S. Environmental Protection Agency*

**1:00 PM – 5:00 PM • Rooms 207–208**

Water infrastructure funding is a top priority for communities. There are several sources of federal funding for water infrastructure, including the Clean Water and Drinking Water State Revolving Funds (SRFs) and the Water Infrastructure Finance and Innovation Act (WIFIA) program. Combined, these programs provide billions of dollars each year to thousands of communities across the country for their drinking water, wastewater, and stormwater infrastructure needs. These funding programs offer many benefits and flexibilities, including grant-like dollars, low interest loans, long loan repayment terms, customized repayment schedules, and opportunities for non-infrastructure technical assistance. These financing flexibilities help communities implement critical water infrastructure projects at a lower cost to ratepayers.

This workshop will provide an overview of the SRF and WIFIA programs, including eligibilities, priorities, and benefits. Presenters will also discuss how these programs can be combined to maximize water infrastructure funding for communities.

#### Presenters:

- **Karen Fligger**, US EPA, WIFIA Program
- **Logan Loadholtz**, US EPA, CWSRF Program
- **Nick Chamberlain**, US EPA, DWSRF Program
- **Kelly Sherwood**, US EPA, DWSRF Program



# Conference Highlights

## Tuesday, August 27, 2024

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### 15TH ANNUAL OPERATIONS CHALLENGE

#### Equipment Set-Up and Team Check-In

12:00 PM – 5:30 PM • Exhibit Hall

#### Operation OC2! – Day 1

#### Process Control Event

5:30 PM – 6:30 PM • Exhibit Hall

Continues on Wednesday.

(See page 25 for details.)



Do you ever wonder what transpires behind the scenes during the operation of a water resource recovery facility? Instead of continuing to take these unsung specialists for granted, learn how the best wastewater collection and treatment personnel in the country display their skills at Operations Challenge. In the competition, teams compete to earn the highest score in five different events. Each team includes four members, and often a coach as well. Each event is designed to test the diverse skills required for the operation and maintenance of water resource recovery facilities, collection systems, and laboratories. The five events are collections systems, laboratory, process control, maintenance, and safety. Winners are determined by a weighted points system.

To register your team for this event go to:  
[www.ChesapeakeTricon.org/Ops-Challenge.html](http://www.ChesapeakeTricon.org/Ops-Challenge.html)

#### Sponsored by:

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# Conference Highlights

## Wednesday, August 28, 2024

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### 5K FUN RUN/WALK

#### BENEFITTING WATER NON-PROFIT ORGANIZATIONS

**7:00 AM • BOARDWALK AT THE GRAND HOTEL (21ST STREET)**

The 2024 Tri-Con Fun Run/Walk will start outside of the Grand Hotel where participants will enjoy camaraderie and a beautiful view of the ocean. In 2023, over 50 runners and walkers came out to enjoy wonderful weather and an incredible sunrise! Registration includes a performance T-shirt, snacks, and refreshments.

You must pre-register to participate.

\$35 early-bird registration/\$45 standard registration.



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WHEL-TECH

**Inclement Weather Cancellation:** In the event of inclement weather, Fun Run registrants will be contacted by email if the event is cancelled. Credit card refunds will be issued to those who request one in writing directly to Carrie Kruger ([ckruger@all4himenv.com](mailto:ckruger@all4himenv.com)) by 6:00 PM on September 6, 2024 if, and only if, the Fun Run is cancelled due to inclement weather. We will consider the registration fee of those runners who do not request a refund as a donation.

# Conference Highlights

## Wednesday, August 28, 2024

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### REGISTRATION/CHECK-IN

7:30 AM – 5:00 PM • First Floor Lobby

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### EXHIBITS OPEN

7:30 AM – 5:00 PM • Exhibit Hall

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### CONTINENTAL BREAKFAST

7:30 AM – 9:30 AM • Exhibit Hall

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### OPERATOR CLASSES

8:00 AM – 12:00 PM • Room 210

(See page 27 for more details.)

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### SILENT AUCTION

8:00 AM – 6:00 PM • Exhibit Hall

(See page 26 for more details.)

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### TECHNICAL SESSIONS

8:30 AM – 10:00 AM • Rooms 201–204, 207–208, 215, and 217

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# Conference Highlights

## Wednesday, August 28, 2024

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### 15TH ANNUAL OPERATIONS CHALLENGE

9:00 AM – 4:00 PM • Exhibit Hall – Award Ceremony to Follow

See page 22 for details.

### Pre-Competition Meeting

8:30 AM – 9:00 AM • Exhibit Hall

### Operation OC2! – Day 2

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

- Maintenance Event
- Collection System Event
- Safety Event
- Awards
- Pipe Cutting Shootout

Operations Challenge will conclude with the Pipe Cutting Shootout that happens during the Shooters Happy Hour. This event is open to any registered attendee. There will be a male and a female division and prizes. Please sign up for the event on Tuesday or Wednesday before the event (see page 22 for details).

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### RESIDUALS AND BIOSOLIDS BEAUTY CONTEST

9:00 AM – 11:00 AM • Exhibit Hall

Register all Residuals and Biosolids entries for the Beauty Contest at the CWEA table on the second floor **before 9 AM** on Wednesday. Entries will be displayed and judged in the Exhibit Hall after they've been registered. There will be awards handed out during the CWEA Annual Business Meeting Luncheon on Thursday, August 29 beginning at 12:30. Awards will be given for Class A Biosolids Enhanced, Class B Biosolids, Residuals, and Best in Presentation (overall). For more information contact John Maley at [john.maley@hdrinc.com](mailto:john.maley@hdrinc.com) or Traci Storm at [traci@chesapeakecwea.org](mailto:traci@chesapeakecwea.org).

# Conference Highlights

## Wednesday, August 28, 2024

**SILENT AUCTION  
BENEFITTING WATER FOR PEOPLE  
AND MARYLAND REENTRY  
RESOURCE CENTER**

**8:00 AM – 6:00 PM • Exhibit Hall**

(Online continuously through 10:30 AM on Thursday,  
August 29, 2024.)



### **Silent Auction Is Online Again This Year!**

Tri-Con's Silent Auction will once again be a hybrid event with items displayed in the Exhibit Hall, but bidding will take place only on 32auctions ([www.32auctions.com/Tricon2024](http://www.32auctions.com/Tricon2024)). To participate, you will need a 32auctions account. The auction will run continuously from 8:00 AM Wednesday through Thursday at 10:30 AM. You must pay for your item directly online, and then bring your receipt to the Information Desk to pick up your items. No items will be shipped without prior arrangement.

A portion of the proceeds will benefit the Maryland Reentry Resource Center. The Maryland Reentry Resource Center ([www.mdrrc.org](http://www.mdrrc.org)) in partnership with the Chesapeake Conservation Landscaping Council will use the grant to provide soft skills and green infrastructure and landscape training to one cohort of 10 criminal justice involved participants, creating a ready workforce of restoration maintenance professionals. Participants will receive on-the-job training and supervised projects for three months with a stipend.

Proceeds will also benefit Water For People ([www.waterforpeople.org](http://www.waterforpeople.org)) – a global nonprofit that helps people bring clean water and sanitation solutions to their communities for generation to come.

Items will be displayed in the Exhibit Hall, and detailed instructions for participating are posted at the Silent Auction tables, and at the Information Desk. Please contact Erica Whorley ([triconsilentauctions@gmail.com](mailto:triconsilentauctions@gmail.com) or [ewhorley@brwnncald.com](mailto:ewhorley@brwnncald.com)) for more information.

# Conference Highlights

## Wednesday, August 28, 2024

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### OPERATOR CLASSES

This year, we are offering four half-day operator classes. See page 35 for Thursday's classes.

Early-bird registration: \$25/Standard registration: \$30.  
You must be registered for the conference to attend.

#### 8:00 AM –12:00 PM • Room 210

##### Basic Motor and Pump Maintenance

All Operators (Non-Process)

**Instructor:** Bob Andrews, Hills Industrial

Students will learn:

- How to read a motor nameplate
- Motor storage recommendations
- Basic systems considerations for motor/pump selections
- Proper basic installation requirements
- Startup and baseline information gathering
- Preventive, predictive, and reliability-based maintenance
- Relubrication of bearings
- Inspection and testing at prescribed intervals
- Motor storage tips and recommendations

#### 1:30 PM –5:00 PM • Room 210

##### Coagulation, Flocculation, Sedimentation and Filtration

All WWT/All IWW/All WT Operators (Process)

**Instructor:** Eddie Cope, Anne Arundel County

Designed to assist water plant operators, this advanced course focuses on tracking the flow of water through the four fundamental chemical/physical processes in water treatment. Participants will examine chemical reactions, the physical event of each process, and the plant equipment involved. Instruction and practice in solving typical operational and mathematical problems associated with these treatment functions will also be covered. (This course has received TRE certification for both water and wastewater operators because some wastewater treatment plants may employ one or more of these processes). ***Each participant should bring a calculator to this class.***



# Conference Highlights

## Wednesday, August 28, 2024

### OPERATOR CLASSES (CONTINUED)

Sponsored by:



### WEDNESDAY MORNING BREAK/VISIT EXHIBITORS – DOOR PRIZE!

10:00 AM – 11:00 AM • Exhibit Hall

Sponsored by:



### OPENING CEREMONY

11:00 AM – 12:00 PM • Performing Arts Center – DOOR PRIZE!

Sponsored by:



### Welcome

**Erica Whorley**, Tri-Association Conference Committee Chair

### Keynote Speaker

**George S. Hawkins, Esq.**

*Founder and President, Moonshot Missions (Former CEO of DC Water)*



George Hawkins is a renowned expert in change management and public policy. He has spent over three decades helping public utilities and organizations overcome obstacles and achieve transformative change. As CEO of DC WASA (now DC Water) from 2009–2018, George recognized the need for change and worked

# Conference Highlights

## Wednesday, August 28, 2024

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### OPENING CEREMONY (CONTINUED)

with his team to transform the utility into one of the most innovative and respected water utilities in the country.

George's experience leading DC Water has given him valuable insights into the central obstacles to change in any public infrastructure. He has developed universal principles that can guide transformative change and help organizations overcome challenges.

In addition to his work at DC Water, George has also served as the Executive Director of the District of Columbia's Department of Energy and Environment. He has been recognized for his leadership and expertise in sustainability, environmental policy, and public service. George is passionate about helping communities access federal and state funding for transformative change. His work has helped countless organizations overcome obstacles and achieve their goals.

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### LUNCH WITH EXHIBITORS

12:00 PM – 1:00 PM • Exhibit Hall

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### TECHNICAL SESSIONS

1:00 PM – 2:30 PM • Rooms 201–204, 207–208, 215, and 217

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# Conference Highlights

## Wednesday, August 28, 2024

WEDNESDAY AFTERNOON BREAK/VISIT EXHIBITORS –

**DOOR PRIZE!**

**2:30 PM – 3:30 PM • Exhibit Hall**

*Sponsored by:*



### METER CHALLENGE

**2:30 PM – 3:30 PM • Exhibit Hall**

The Meter Challenge is your opportunity to challenge and compete against your fellow operators, engineers, and other water utility professionals. The competition is an individual event aimed at measuring an individual's skill at assembling a meter quickly, totally, and accurately. Each qualified participant is solely responsible for his/her performance. Winner of the local competition will have the chance to go to the national AWWA Meter Challenge, at ACE25 in Denver.



*All sponsorship funds for Meter Challenge, Hydrant Hysteria, Pipe Tapping, and Top Ops support CSAWWA competitors' travel to the national competitions at AWWA's Annual Conference and Expo (ACE).*

*Sponsored by:*



# Conference Highlights

## Wednesday, August 28, 2024

### HYDRANT HYSTERIA

2:30 PM – 3:30 PM • Exhibit Hall

Hydrant Hysteria is a measure of a team's skill at assembling a fire hydrant quickly, totally and accurately. All parts must be assembled in the proper manner and the reassembled hydrant is tested by the judges for its ability to operate correctly. Competitors race against the clock, and can be penalized in seconds for any errors in assembly.



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### TECHNICAL SESSIONS

3:30 PM – 5:00 PM • Rooms 201–204, 207–208, 215, and 217

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### PIPE CUTTING SHOOTOUT

4:00 PM – 5:00 PM • Exhibit Hall – Award Ceremony to Follow

Operations Challenge will conclude with the Pipe Cutting Shootout that happens during the Shooters Happy Hour. This event is open to any registered attendee. Please sign up to participate in the fastest single pipe cut competition. There is a men's and women's competition, and many first-time cutters then participate annually. Trophies and gift cards will be awarded to the fastest men's and women's cuts! See you Wednesday afternoon!

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# Conference Highlights

## Wednesday, August 28, 2024

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### SHOOTERS HAPPY HOUR

**4:00 PM – 5:30 PM • Exhibit Hall**

Come network and enjoy light fare and drinks with our valued exhibitors while you watch attendees participate in the Pipe Cutting Shootout. Sodas, beer, and wine are complimentary and a cash bar for liquor will be available. After happy hour, come join your fellow attendees and exhibitors for a Fun Night at Seacrets®!

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### WOMEN IN WATER NETWORKING EVENT

**5:00 PM – 6:30 PM • Bayfront Ballroom, Second Floor**

All are welcome to join the Women in Water Networking Event and participate in engaging conversations and networking.

This year's theme is all about giving back. While our event's mission is to support women in the water industry, how do we pay it forward and support more communities? Let's share stories of volunteering, mentoring, and navigating meaningful ways of lending a hand. Please join us after the conclusion of Wednesday's technical sessions in the Bayfront Ballroom, located on the second floor of the convention center. Attendance is free but you must pre-register.



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# Conference Highlights

## Wednesday, August 28, 2024

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### FUN NIGHT

**7:00 PM – 11:00 PM • Seacrets® (ticketed event)**

Fun Night at Seacrets has become THE networking/social event not to miss at Tri-Con! Everything is set for another fantastic evening with a cool Caribbean vibe plus great food, jammin' music, and even free transportation. Appetizers and a full dinner buffet are served starting at 7:30 PM, and each guest gets two free drink tickets. Chill on the beach with our DJ, or under the tent with the high energy party band The Way Outs. These four dudes, usually in Hawaiian shirts, will be playing all of your favorite dance music so hit the floor and have a great time rocking out with *The Way Outs*.

***\$75: Tickets must be purchased by Tuesday, August 27, 2024. No tickets will be sold at the door or individually on Wednesday at the conference. Bring your name badge to use on the Ocean City buses for a free ride back to your hotel. Must be 21 years old to attend.***

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**SHERWOOD  
LOGAN**



# Conference Highlights

## Thursday, August 29, 2024

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### REGISTRATION/CHECK-IN

7:30 AM – 4:00 PM • First Floor Lobby

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### EXHIBITS OPEN

7:30 AM – 12:30 PM • Exhibit Hall

Move-Out: 12:30 PM – 4:00 PM

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### CONTINENTAL BREAKFAST

7:30 AM – 9:30 AM • Exhibit Hall

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### SILENT AUCTION BENEFITTING WATER FOR PEOPLE AND MARYLAND REENTRY RESOURCE CENTER

7:30 AM – 10:30 AM • Exhibit Hall

(continued from Wednesday)

See page 26 for more information.

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### TECHNICAL SESSIONS

8:30 AM – 10:00 AM • Rooms 201–204, 207–208, 215, and 217

*Sponsored by:*

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# Conference Highlights

## Thursday, August 29, 2024

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### OPERATOR CLASSES

**8:30 AM – 12:30 PM • Room 210**

#### Advanced Wastewater

All Operators (Process)

**Instructor:** Bill Shreve, Sr., MCET and KCI Technologies

Students will learn:

- Nutrient impacts, regulations
- Chemical processes for nitrogen
- Biological processes for nitrogen & phosphorus
- Filtration processes
- Groundwater discharge systems
- Membrane systems

**2:00 PM – 5:30 PM • Room 210**

#### Process Math for Operators

All Operators (Process)

**Instructor:** Scott Harmon, Trainer

This session will focus on mathematics and application fundamentals of the water and wastewater treatment industry. The class will focus on using math to understand water treatment processes. Upon completion of this course, personnel should be able to perform calculations needed to verify various plant processes. Examples include chemical dosing, detention time, pressure backwash flow rates, and horsepower pump rates.

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### THURSDAY MORNING BREAK/VISIT EXHIBITORS –

**DOOR PRIZE!**

**10:00 AM – 11:00 AM • Exhibit Hall**

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# Conference Highlights

## Thursday, August 29, 2024

### PIPE TAPPING – MEN’S & WOMEN’S TEAMS!

9:30 AM – 11:30 AM • Exhibit Hall

The CSAWWA Tapping Competition is a competition of skill in which water operators work against the clock to open a cement-lined, ductile iron pipe and install a tap. The pipe is filled and under pressure, just as it would be in the field. The competition winners are then eligible to compete in the national Tapping Competition. There are two divisions, Men’s and Women’s.



*Sponsored by:*



*All sponsors directly support sending our winners to the national competition.*

### WATER TASTE TEST

10:00 AM – 11:00 AM • Exhibit Hall

Which utility has the very best tasting tap water in the Chesapeake region? Find out at this annual favorite. The winner will compete nationally at AWWA's ACE25 in Denver, Colorado! For more information, contact Chrissie Swann ([cswann@carollo.com](mailto:cswann@carollo.com)).



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### TECHNICAL SESSIONS

11:00 AM – 12:30 PM • Rooms 201–204, 207–208, 215, and 217

*Sponsored by:*



# Conference Highlights

## Thursday, August 29, 2024

### BUSINESS LUNCHEONS

#### \$45 – register in advance

All conference attendees are welcome to attend the Association Business Luncheon of their choice – WWOA, CSAWWA, or CWEA (ticket purchase required). A buffet lunch is served as gavels are passed, and our leaders are recognized. Come to learn about how our associations work for you, and give our volunteers a big hand for delivering value to our members.

#### CSAWWA Luncheon (ticketed event)

#### 12:30 PM – 1:45 PM • Dockside Hall (First floor, bayside)

The CSAWWA Luncheon will include the following:

- Past Chair Award • Chair's Honor Award • Life Member Awards
- Silver Drop Awards • Gold Drop Awards • Committee Chair Recognition
- Surface Water Treatment Optimization Awards, presented by Maryland Department of the Environment, Water Supply Program

### AWWA National Representative

#### Cheryl Porter

*President, American Water Works Association*



Cheryl Porter is the Chief Operating Officer (COO) of Water and Field Services at Great Lakes Water Authority in Detroit, Michigan.

Her career in the water sector began in 1996 as a chemist for the City of Detroit Water and Sewerage Department and elevated to COO by 2014. Since joining AWWA in 2005, Cheryl has been an active volunteer with AWWA and the Michigan Section of AWWA on various committees and has assumed leadership roles such as the MI-AWWA Board Trustee, AWWA Director-at-Large, and AWWA Vice President Board roles. In January 2023, Cheryl was elected by the AWWA Board of Directors to the role of AWWA Incoming President-Elect. Her presidential term runs from June 2024 to June 2025.

Cheryl holds a Bachelor of Science in Chemistry from the University of Michigan, a Juris Doctor from the University of Detroit Mercy School of Law, and an MBA from Madonna University.

Cheryl will be joined by Chelsea Boozer, a Young Professional Advisor to the AWWA Executive Committee.

# Conference Highlights

## Thursday, August 29, 2024

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### BUSINESS LUNCHEONS (CONTINUED)



**Chelsea Boozer** is Executive Director of Rogue Water Lab, a nonprofit that believes we'll never solve our pressing water challenges without first improving public trust and truly engaging and involving our communities. Rogue helps by equipping, empowering, and inspiring water providers to advance collaborative engagement with people, policy makers, and businesses on the value of water in sustaining thriving communities. Rogue is home to Catalyst, a three-day experience revolutionizing stakeholder engagement by teaching attendees to relate to, engage, educate, and serve our communities.

Chelsea serves on the AWWA Executive Committee and Board of Directors, and on AWWA's Water Utility Council and Young Professionals Committee. She previously was the Government Affairs Manager for Central Arkansas Water, managing regionalism, stakeholder engagement, and government relations. Prior to water, Chelsea had an award-winning career in journalism. She has an MPA from Syracuse University and loves traveling with her six-year-old son.

### CWEA Business Luncheon (ticketed event)

**12:30 PM – 1:45 PM • Bayfront Ballroom (Second floor)**

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

- Rising Star Award
- Past President's Award
- Golden Raindrop
- 5S Awards
- Golden Manhole
- RBC Beauty Contest Awards

### WEF National Representative

**Janet Hurley Cann**



Janet Hurley Cann, P.E., is a member of the 2023–24 Board of Trustees for the Water Environment Federation. She began her career as a regulator at the South Carolina Department of Health and Environmental Control and continued her career working for an upstate South Carolina water and sewer service provider. Upon retiring in 2015, Janet worked as a consultant, until lured back to public service. Throughout her career, she managed a variety of projects including collection system expansion, pump station

# Conference Highlights

## Thursday, August 29, 2024

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### **BUSINESS LUNCHEONS (CONTINUED)**

and treatment plant construction upgrades, and the development of a collection system hydraulic model. She concluded her career, retiring in 2023, with a focus on the rehabilitation of distribution and collection systems, asset management, strategic planning, and grant writing.

Janet has been a member of the Water Environment Association of South Carolina (WEASC) since 1985. She has served WEF as Speaker of the House of Delegates, Treatment Community of Practice Director, and Vice Chair and Chair of the Committee Leadership Council. Janet has a Bachelor's Degree in Civil Engineering from Clemson University and Master's Degree in Civil Engineering from the University of South Carolina. She is a licensed engineer and biological wastewater operator trainee in the state of South Carolina.

*Sponsored by:*

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### **WWOA Business Luncheon** (ticketed event)

**12:30 PM – 1:45 PM • Rooms 205–206**

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

- The WWOA Lifetime Membership Award
- The WWOA Employer Recognition Award
- William McLean Bingley Award for Distinguished Service in Wastewater
- WWOA Award for Outstanding Personal Service to the Association
- The Barry Walter Award for Distinguished Service in Water Distribution
- Distinguished Service in Water Treatment
- Distinguished Service in Wastewater Collection Systems
- WWOA Young Professionals Award
- WWOA Award for Administrative Excellence

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# Conference Highlights

## Thursday, August 29, 2024

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### TECHNICAL SESSIONS

2:00 PM – 3:30 PM • Rooms 201–206, 207–208, 215, and 217

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AtkinsRéalis



### TOP OPS

2:30 PM – 4:30 PM • Dockside Hall (First floor)

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 Denver, Colorado in 2025. For more information, contact Anthony Rocco, Howard County Bureau of Utilities, 410-313-4945.



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### THURSDAY AFTERNOON BREAK – DOOR PRIZE!

3:30 PM – 4:00 PM • Second Floor Lobby

*Sponsored by:*

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# Conference Highlights

## Thursday, August 29, 2024

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### TECHNICAL SESSIONS

4:00 PM – 5:30 PM • Rooms 201–204, 207–208, 215, and 217

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AtkinsRéalis



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### AWARDS PROGRAM

5:30 PM – 6:30 PM • Bayfront Ballroom (Second Floor)

#### DOOR PRIZE!

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.

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:

#### Tri-Association Conference

- Tri-Association Conference Committee Service Award

#### WWOA

- William McLean Bingley Award for Distinguished Service in Wastewater
- WWOA Award for Outstanding Personal Service to the Association
- The Barry Walter Award for Distinguished Service in Water Distribution
- Distinguished Service in Water Treatment
- Distinguished Service in Wastewater Collection Systems
- WWOA Young Professionals Award
- WWOA Award for Administrative Excellence

# Conference Highlights

## Thursday, August 29, 2024

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### AWARDS PROGRAM (CONTINUED)

#### CSAWWA

- Operator of the Year
- Carl John Lauter Award
- George Warren Fuller Award
- Competition Winners Recognition: Top Ops, Pipe Tapping, Meter Challenge, Hydrant Hysteria, and Water Taste Test

#### CWEA

- The Laboratory Analyst Award
  - The Hatfield Award – Operators Award
  - The Bedell Award – Service to the Organization
- 

### YOUNG PROFESSIONALS HAPPY HOUR

#### 6:30 PM – 8:30 PM • Alley Oops Midtown Bowling – 56th Street (ticketed event)

Join us for an exciting event! The Young Professionals are hosting a night of networking and fun on Thursday, August 29, and everyone is welcome! The evening will feature engaging activities designed to foster meaningful connections among young professionals from various industries, and YPs from CWEA, WWOA, and CSAWWA. It's a fantastic opportunity to connect with peers, gain valuable insights, and establish new relationships within your professional network.

We hope you can join us for what promises to be a memorable evening. We'll enjoy happy hour and appetizers at Alley Oops Midtown Bowling Alley.

**Space is limited to 70 people**, so be sure to register early. Registration is required and includes one happy hour drink and appetizers. \$20. Don't miss out on this great opportunity!

*Sponsored by:*

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**DELVE**  
underground

**xylem**  
Let's Solve Water

**RK&K**

# Conference Highlights

## Friday, August 30, 2024

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### REGISTRATION/CHECK-IN

7:30 AM – 10:30 AM • First Floor Lobby

Sponsored by:

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### SUNRISE YOGA ON THE BEACH (NEW!)

6:15 AM – 7:30 AM • Grand Hotel (21st Street) on the beach

Join us for the first-ever Tri-Con Sunrise Beach Yoga! Yoga will take place on the beach in front of the Grand Hotel. Enjoy beautiful views of the ocean and sunrise while doing an hour-long instructor-led yoga session. Kristin Quinn from Ocean City Yoga will be leading the session. No prior yoga experience is needed to participate. Yoga mats will be provided. \$30 early-bird registration/\$40 standard registration.

**Inclement Weather Cancellation:** In the event of inclement weather, yoga registrants will be contacted by email if the event is cancelled.



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### CONTINENTAL BREAKFAST

8:00 AM – 9:30 AM • Second Floor Lobby

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# Conference Highlights

## Friday, August 30, 2024

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### TECHNICAL SESSIONS

9:00 AM – 10:00 AM • Rooms 201–204, 207–208, 215, and 217

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### MDE OPERATOR CERTIFICATION EXAM

9:00 AM – 12:00 PM • Room 210



**Maryland**  
Department of  
the Environment

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### FRIDAY MORNING BREAK – DOOR PRIZE!

10:00 AM – 10:15 AM • Second Floor

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### TECHNICAL SESSIONS

10:15 AM – 11:45 AM • Rooms 201–204, 207–208, 215, and 217

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### LAST CHANCE FOR TECHNICAL SESSION ATTENDANCE FORM SIGNATURES!

11:45 AM – 12:00 PM • Information Desk, First Floor Lobby

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### ADJOURN/MONSTER DOOR PRIZES

12:00 PM • Information Desk, First Floor Lobby



# Technical Program Schedule

## Wednesday, August 28, 2024

Speakers' names are in bold italics, and co-speakers' names are in italics.

### ROOM 201-202 • ASSET MANAGEMENT

8:30 AM – 9:00 AM

Exploring Wet-weather Solutions Amidst Strict NPDES Discharge Limits

**Milad Ebrahimi, WSSC Water** ([milad.ebrahimi@wsscwater.com](mailto:milad.ebrahimi@wsscwater.com))

*Jimit Modi, Black & Veatch*

9:00 AM – 9:00 AM

Funding to Mitigate Disasters with “Fed Funds”

**Karen Edwards-Lindsey, U.S. EPA** ([edwards-lindsey.karen@epa.gov](mailto:edwards-lindsey.karen@epa.gov))

9:30 AM – 10:00 AM

State Actions to Help Water Systems Achieve Sustainability through Asset Management Planning and Implementation

**Deirdre White, ASDWA** ([dwhite@asdwa.org](mailto:dwhite@asdwa.org))

1:00 PM – 1:30 PM

Cracks, Shrunk Windowsills, Water intrusion –

It's Time for a Condition Assessment!

**Chrissie Swann, Carollo Engineers** ([cswann@carollo.com](mailto:cswann@carollo.com))

*Christopher Barnhill, WSSC Water*

1:30 PM – 2:00 PM

Advancing Facility Management with

Customized Cloud-based Tools for Condition Assessment

**Andrew Burton, Carollo Engineers** ([aburton@carollo.com](mailto:aburton@carollo.com))

2:00 PM – 2:30 PM

Engineering Approach to Condition-Based

Maintenance for Mechanical Equipment

**Joel Thompson, Stantec** ([joel.thompson2@stantec.com](mailto:joel.thompson2@stantec.com))

*Ali Alavi, Stantec*

3:30 PM – 4:00 PM

Asset Management – Building Information Management (BIM)

16th & Alaska Pump Station Pilot Demonstration

**Monique Mirabeau, DC Water** ([monique.mirabeau@dcwater.com](mailto:monique.mirabeau@dcwater.com))

*Michael Skerritt, Mott MacDonald*

*Ogechi Okpechi, DC Water*

4:00 PM – 4:30 PM

How to Sweat the Small Stuff: A Risk Approach

for Rehabilitating Small Diameter Sewers

**Emily Keller, Carollo Engineers** ([ekeller@carollo.com](mailto:ekeller@carollo.com))

*Ella Garcia, DC Water*

# Technical Program Schedule

## Wednesday, August 28, 2024

Speakers' names are in bold italics, and co-speakers' names are in italics.

### ROOM 201–202 • ASSET MANAGEMENT (CONTINUED)

4:30 PM – 5:00 PM

Manhole Inflow – The Uncomfortable Reality of How Much of Our Peak Wet Weather Flow is Related to Sheet Runoff  
**James Shelton, ARCADIS** ([james.shelton@arcadis.com](mailto:james.shelton@arcadis.com))

### ROOM 203–204 • WASTEWATER TREATMENT

8:30 AM – 9:00 AM

Knock Out, Drag Out Fight: Centrifuge vs. Belt Filter Press – Title for Best Dewatering Technology to Squeeze Poop at Dunn Water Reclamation Facility!  
**Manuel Moncholi, Stantec** ([manuel.moncholi@stantec.com](mailto:manuel.moncholi@stantec.com))  
*Shyam Sivaprasad, Stantec*

9:00 AM – 9:30 AM

Technology Spotlight:  
Updates from Ecoremedy Fluid Lift Gasification Projects in PA and WA  
**Dion Banks, Ecoremedy LLC** ([dbanks@ecoremedyllc.com](mailto:dbanks@ecoremedyllc.com))

9:30 AM – 10:00 AM

Aligning Cogeneration Sizing with the Plant and Client's Goals (Big Plant Edition)  
**Christian Chiodo, Brown and Caldwell** ([cchiodo@brwnncald.com](mailto:cchiodo@brwnncald.com))

1:00 PM – 1:30 PM

Trial By Fire: Conducting a Full-scale Pilot Study with an Emergent Disinfection Technology  
**Kyle Kinard, Harford County DPW** ([krkinard@harfordcountymd.gov](mailto:krkinard@harfordcountymd.gov))

1:30 PM – 2:00 PM

Operational Insights from the Patapsco WWTP: Lessons in Process Control and Rehabilitation  
**Chris Saunders, Hazen and Sawyer** ([csaunders@hazenandsawyer.com](mailto:csaunders@hazenandsawyer.com))  
*Neal Jackson, Baltimore City*

2:00 PM – 2:30 PM

Improving MBR Performance Monitoring and Maintenance with Control Chart Methodology  
**Mirzaman Zamanzadeh, inCTRL Solutions, Inc.** ([zamanzadeh@inctrl.com](mailto:zamanzadeh@inctrl.com))

# Technical Program Schedule

## Wednesday, August 28, 2024

Speakers' names are in bold italics, and co-speakers' names are in italics.

### ROOM 203-204 • WASTEWATER TREATMENT (CONTINUED)

3:30 PM – 4:00 PM

A PFAS Perspective – Laboratory, Landfills, and Biosolids

**Gary Hunter**, *Black & Veatch (huntergl@bv.com)*

4:00 PM – 4:30 PM

Managing Wet Weather Challenges at the Pleasant Hills Authority WWTP

**Robert Dengler**, *Gannett Fleming (rdengler@gfnet.com)*

4:30 PM – 5:00 PM

Not your Great, Great, Grandfather's Secondary Clarifier –

New Clarifier Inlet Optimization Technology

**Todd Latchaw**, *Passavant-Geiger GmbH, a brand of Aqseptence Group (todd.latchaw@passavant-geiger.com)*

### ROOM 207-208 • FUNDING

8:30 AM – 9:00 AM

AlexRenew's Interest in Loans to Deliver

Alexandria's Largest Infrastructure Project

**Bridget Kocot**, *Brown and Caldwell (bkocot@brwnald.com)*

*Caitlin Feehan, AlexRenew*

*Lake Akinkugbe, AlexRenew*

9:00 AM – 9:30 AM

The Growing Water Workforce:

Making the Case for Increased Water Infrastructure Funding

**Kevin Letterly**, *ASDWA (kletterly@asdwa.org)*

9:30 AM – 10:00 AM

How WIFIA Financing Benefits Communities

**Karen Fligger**, *U.S. EPA (fligger.karen@epa.gov)*



# Technical Program Schedule

## Wednesday, August 28, 2024

Speakers' names are in bold italics, and co-speakers' names are in italics.

### ROOM 207-208 • WATER STORAGE TANKS

1:00 PM – 1:30 PM

Managing Elevated Water Storage Tank Rehabilitation:  
Lessons Learned from 100+ Tank Jobs in DelMarVa

**Bernie Wigginton, Gannett Fleming** ([bwigginton@gfnet.com](mailto:bwigginton@gfnet.com))

1:30 PM – 2:00 PM

A Challenging Tank Upgrade for a Rapidly  
Growing System Constructed through the Pandemic  
**Christopher Soussanin, St. Mary's County Metropolitan Commission**  
([csoussanin@metcom.org](mailto:csoussanin@metcom.org))

*Andy Cooper, WRA LLP*

*Christy Hollander, St. Mary's County Metropolitan Commission*

2:00 PM – 2:30 PM

Controlled Trench Blasting at Druid Lake – How to Keep  
the Drinking Reservoir In-service & Not Scare the Zoo Animals  
**William Wagner, Whitman, Requardt & Associates** ([wwagner@wrallp.com](mailto:wwagner@wrallp.com))

### ROOM 207-208 • WATER DISTRIBUTION

3:30 PM – 4:00 PM

The Occoquan River Crossing Was a BLAST  
**Tim Bulford, Garney Construction** ([tbulford@garney.com](mailto:tbulford@garney.com))

4:00 PM – 4:30 PM

Pipe Bursting Proof of Use for Water Main Replacement:  
Insights from WSSC Water Pilot Project

**Yudu (Sonia) Wu, WSP** ([yudu.wu@wsp.com](mailto:yudu.wu@wsp.com))

*Keith Solomon, WSSC Water*

*Thomas Payne, WSP*

4:30 PM – 5:00 PM

CIPP Lining of Water Mains – A Cost-Effective Solution  
**Khalid Qadwai, EBA Engineering, Inc.**  
([khalid.qadwai@ebaengineering.com](mailto:khalid.qadwai@ebaengineering.com))

# Technical Program Schedule

## Wednesday, August 28, 2024

Speakers' names are in bold italics, and co-speakers' names are in italics.

### ROOM 215 • UTILITY MANAGEMENT/ETHICS

8:30 AM – 9:00 AM

SAFETY FIRST: Fire Protection Assessments for WWTPs

**Jason Vernooy, GHD** ([jason.vernooy@ghd.com](mailto:jason.vernooy@ghd.com))

9:00 AM – 10:00 AM

Ethics in Patenting for Professional Engineers

**Clifton E. McCann, FisherBroyles** ([clifton.mccann@fisherbroyles.com](mailto:clifton.mccann@fisherbroyles.com))

### ROOM 215 • UTILITY MANAGEMENT

1:00 PM – 1:30 PM

Automation and Analysis: Data-Driven Strategies Improve

Utility Processes and Analyze Performance at WSSC Water

**Dan Scrutchfield, ARCADIS** ([daniel.scrutchfield@arcadis.com](mailto:daniel.scrutchfield@arcadis.com))

*Andres Villarraga, WSSC Water*

1:30 PM – 2:00 PM

Collaborative Project Delivery with Drone Technology

**Brandon Reider, Garney Construction** ([breider@garney.com](mailto:breider@garney.com))

*Clay Greene, Garney Construction*

2:00 PM – 2:30 PM

Using Data to Target Customer Engagement and

Outreach Efforts in Your Financial Assistance Programs

**Jay Sakai, 4Tenets Consulting** ([jsakai@fourtenets.com](mailto:jsakai@fourtenets.com))

*Kelly Caplan, WSSC Water*

3:30 PM – 4:00 PM

Complying with AWIA 2025 Deadline

**Patti Kay Wisniewski, EPA Region III** ([wisniewski.patti-kay@epa.gov](mailto:wisniewski.patti-kay@epa.gov))

4:00 PM – 4:30 PM

The Importance of Cyber Resiliency in the

Modern Utility: St. Louis MSD's Journey

**Jonathon Sprague, HDR** ([jonathon.sprague@hdrinc.com](mailto:jonathon.sprague@hdrinc.com))

*Ginny Kienstra, Metropolitan St. Louis Sewer District*

4:30 PM – 5:00 PM

Howard County Bureau of Utilities Water Isolation Tracer Tool

**Jeff Edgin, Howard County Bureau of Utilities**

([jedgin@howardcountymd.gov](mailto:jedgin@howardcountymd.gov))

# Technical Program Schedule

## Wednesday, August 28, 2024

Speakers' names are in bold italics, and co-speakers' names are in italics.

### ROOM 217 • COLLECTION SYSTEMS

8:30 AM – 9:00 AM

From Catastrophe Crisis to Resilient Renewal:  
Leveraging Innovation to Accelerate the Emergency Design  
and Construction of a Failed 48-inch Force Main

**Paul Longo, Dewberry** ([plongo@dewberry.com](mailto:plongo@dewberry.com))

*Richard Kincheloe, Dewberry*

9:00 AM – 9:30 AM

Outfall-ing Down!

**Jordan Rang, KCI Technologies** ([jordan.rang@kci.com](mailto:jordan.rang@kci.com))

*Daniel Sullivan, City of Baltimore Dept. of Public Works*

*Steven Walsh, Ulliman Schutte Construction*

9:30 AM – 10:00 AM

Streamlining Infrastructure: Relocating a  
Sewage Interceptor for a Major Highway Interchange

**Vanessa Nedrick, Remington & Vernick Engineers**

([vanessa.nedrick@rve.com](mailto:vanessa.nedrick@rve.com))

### ROOM 217 • OPERATIONS/MAINTENANCE

1:00 PM – 1:30 PM

Safety Regulations Relating to Internal Pipeline Inspection

**Russell Deason, HDR Inc.** ([rdeason@hdrinc.com](mailto:rdeason@hdrinc.com))

*Michael Higgins, HDR Inc.*

1:30 PM – 2:00 PM

Impacts of Streamlined Data Visualization on Program Delivery

**Chad Whitley, HDR Inc.** ([chad.whitley@hdrinc.com](mailto:chad.whitley@hdrinc.com))

*Grace Caballero, HDR Inc.*

2:00 PM – 2:30 PM

Sewer Data Management and O&M Plan Optimization  
in the City of Baltimore's Department of Public Works

**Jim O'Dowd, AECOM** ([jim.o'dowd@aecom.com](mailto:jim.o'dowd@aecom.com))

*Paul Sayan, City of Baltimore's Dept. of Public Works*

# Technical Program Schedule

## Wednesday, August 28, 2024

Speakers' names are in bold italics, and co-speakers' names are in italics.

### ROOM 217 • COLLECTION SYSTEMS

3:30 PM – 4:00 PM

HRSD WWTP Primary Clarifier Influent & Effluent Pipe Rehabilitation

***Atilana Bolton***, *Structural Technologies* ([abolton@structuraltec.com](mailto:abolton@structuraltec.com))

*Anna Pridmore*, *Structural Technologies*

*Terry Zentkovich*, *RK&K*

4:00 PM – 4:30 PM

How to Effectively Perform a Pipeline Health Check for Sewer Force Mains

***Christina Camonayan***, *RJN Group* ([christina.camonayan@rjnmail.com](mailto:christina.camonayan@rjnmail.com))

*Christopher Korpman*, *Baltimore County*

4:30 PM – 5:00 PM

Post-COVID-19 Modern Trash Loading Proves Sewage Pump

Clog Resistance Cannot Be Predicted by Impeller Throatlet Size

***Robert Domkowski***, *Xylem, Inc.* – [Flygt](mailto:bob.domkowski@xylem.com) ([bob.domkowski@xylem.com](mailto:bob.domkowski@xylem.com))





# Technical Program Schedule

## Thursday, August 29, 2024

Speakers' names are in bold italics, and co-speakers' names are in italics.

### ROOM 201-202 • ASSET MANAGEMENT

8:30 AM – 9:00 AM

Refining PCCP Inspections by Understanding  
Electromagnetic Field Interactions

**Ad Shatat, APPIA** ([ad@appia.solutions](mailto:ad@appia.solutions))

*Chris Garrett, APPIA*

9:00 AM – 9:30 AM

Water Main Predictions:  
How Good Old Statistics Still Help in the Age of AI

**Annie Vanrenterghem, infraPLAN** ([avanraven@infraplan-llc.com](mailto:avanraven@infraplan-llc.com))

9:30 AM – 10:00 AM

How to Predict the Uncertain: DC Water's Use of  
Monte Carlo Analysis to Quantify Lead Service Lines in DC

**Matthew Young, DC Water** ([youngms@cdmsmith.com](mailto:youngms@cdmsmith.com))

*William Elledge, DC Water*

11:00 AM – 11:30 AM

Indirect Corrosion Inspection for Water Pipelines

**Andrew Fuller, EDT Inc.** ([andrew.fuller@edtinc.net](mailto:andrew.fuller@edtinc.net))

*Gwen Sullivan, EDT Inc.*

*Hassan Rashidian Dezfouli* ([hassan.dezfouli@edtinc.net](mailto:hassan.dezfouli@edtinc.net))

11:30 AM – 12:00 PM

What Goes First? A Prioritization Approach for Very Large Sewers

**Laura Khouvilay, Carollo** ([lkhouvilay@carollo.com](mailto:lkhouvilay@carollo.com))

*Ella Garcia, DC Water*

12:00 PM – 12:30 PM

Comparison & Validation of Water Pipe Condition Assessment Results  
on a 16-inch Cast Iron Pipe from Two Inspection Technologies

**Claire Chen, Mott MacDonald** ([yunqi.chen@mottmac.com](mailto:yunqi.chen@mottmac.com))

*Churchill Okonkwo, DC Water*

*Jessica Shiao, DC Water*

2:00 PM – 2:30 PM

Charm City Criticality: Optimizing Valve Management in Baltimore

**Ethan Vidal, Xylem** ([ethan.vidal@xylem.com](mailto:ethan.vidal@xylem.com))

*Greta Vladeanu, Xylem*

2:30 PM – 3:00 PM

Navigating the Transition to ESRI's Utility Network

**Natalie Ciletti, AECOM** ([natalie.ciletti@aecom.com](mailto:natalie.ciletti@aecom.com))

*Anthony Dowell, AECOM*

# Technical Program Schedule

## Thursday, August 29, 2024

Speakers' names are in bold italics, and co-speakers' names are in italics.

### ROOM 201–202 • ASSET MANAGEMENT (CONTINUED)

3:00 PM – 3:30 PM

Smart Geospatial Analytics: Revolutionizing Corrosion Management in Water and Wastewater Infrastructure  
**Wenxuan Dong, Black & Veatch (dongw1@bv.com)**

4:00 PM – 4:30 PM

Streamlining Sustainability: A Tailored Asset Management Approach for Small Community Water Systems  
**Nirav Shah, RK&K (nshah@rkk.com)**  
*Jay Guyer, Municipal Services Commission*

4:30 PM – 5:00 PM

Where Is That File? Document Management Tools and Methods for Inspection and Condition Assessment Projects  
**Chandra Vavilala, DC Water (chandra.vavilala@dcwater.com)**  
*Abdulhameed Kutubi, DC Water*

5:00 PM – 5:30 PM

Maximizing Project Success through Integrated Asset Management and Strategic Planning: Case Study DC Water  
**Getachew Melsew, DC Water (gmelsew@dcwater.com)**  
*Zelalem Hailu, DC Water*

### ROOM 203–204 • WASTEWATER TREATMENT

8:30 AM – 9:00 AM

Challenging the Retention Time of Anaerobic Digestion Using Thermal Hydrolysis Pretreatment  
**Bill Barber, Cambi (bill.barber@cambi.com)**

9:00 AM – 9:30 AM

Challenges of Low BOD/TSS Ratios in Wastewater Treatment: A Case Study Analysis  
**Karthik Manchala, Virginia Tech (mkarthikreddy@gmail.com)**

9:30 AM – 10:00 AM

Anaerobic Digestion with H<sub>2</sub>S & Nutrient Control – What If Your Digesters Were the Sidestream?  
**Matthew Williams, Thermal Process Systems (mwilliams@thermalprocess.com)**

11:00 AM – 11:30 AM

How Low Can We Go? Successful Low DO Operations for Biological Nutrient Removal at Pomona WRF  
**Michelle Young, Carollo Engineers, Inc. (myoung@carollo.com)**

# Technical Program Schedule

## Thursday, August 29, 2024

Speakers' names are in bold italics, and co-speakers' names are in italics.

### ROOM 203-204 • WASTEWATER TREATMENT (CONTINUED)

11:30 AM – 12:00 PM

Innovative New Media with Advanced  
Deep Bed Primary Filtration Makes Significant Strides  
**Amit Kaldate, Tomorrow Water (ak@tomorrowwater.com)**

12:00 PM – 12:30 PM

Retrofitting Solutions for High and Variable  
Airflows Using Low-Pressure Membrane Diffusers  
**Ladan Holakoo, Jacobs (ladan.holakoo@jacobs.com)**

2:00 PM – 2:30 PM

Out with the Old and In with the New  
**Ezgi Kurdoglu, Maryland Environmental Service (ekurdoglu@menv.com)**  
*Mark Kaiser, Maryland Environmental Service*

2:30 PM – 3:00 PM

Optimizing DC Water's Aerated Grit  
Chambers with Innovative TruGrit Approach  
**Jason Kerns, HDR Inc. (jason.kerns@hdrinc.com)**  
*Ryan Little, DC Water*  
*Ryu Suzuki, DC Water*

3:00 PM – 3:30 PM

An Innovative Lime Slurry System Provides Low cost,  
Transitional & Contingency Solutions for Biosolids Stabilization  
**Malcolm Taylor, WSSC Water (malcolm.taylor@wsscwater.com)**

4:00 PM – 4:30 PM

Bay-Driven Regulations:  
Innovative Nutrient Mitigation Strategies for Wilmington WWTP  
**Heather Stewart, Jacobs (heather.stewart10@jacobs.com)**  
*Liie Hill, Jacobs*

4:30 PM – 5:00 PM

Continuous Flow Aerobic Granular Sludge Process  
Helps with Sustainable Upgrades at WRRFs  
**Amit Kaldate, Tomorrow Water (ak@tomorrowwater.com)**

5:00 PM – 5:30 PM

Can You Spiral Down to ENR Easily...  
MABR Can Help You Reach a TN of 3 with No Additional Carbon  
**Bruce Stevens, FLUENCE (bstevens@fluencecorp.com)**  
*Jason Loar, Davis, Bowen & Friedel, Inc.*

# Technical Program Schedule

## Thursday, August 29, 2024

Speakers' names are in bold italics, and co-speakers' names are in italics.

### ROOM 207-208 • WATER TREATMENT

8:30 AM – 9:00 AM

Rejuvenating the Montebello Water Filtration Plant  
for the Next 100 Years of Service

**Jeffrey Thompson, Whitman, Requardt & Associates**

*(jthompson@wrallp.com)*

*Remi Urbonas, Baltimore City*

*Timothy Wolfe, Baltimore City*

9:00 AM – 9:30 AM

Closing the Loop on PFAS: An Overview of PFAS Destruction  
Technologies to Expand PFAS Mitigation Efforts in Water & Wastewater

**Donald Ryan, Stantec (donald.ryan@stantec.com)**

9:30 AM – 10:00 AM

Programmatic Rapid Deployment of Small-Scale PFAS Wellhead Treatment

**Sean Lammerts, Black & Veatch (lammertsj@bv.com)**

*Joseph Pearce, Aqua America*

11:00 AM – 11:30 AM

Evaluating the Presence of PFAS and Gen-X Chemicals  
in a Raw Water Source and Developing a Treatment Strategy  
for a 12 MGD Water Treatment Plant

**Mark Notheis, Jacobs (mark.notheis@jacobs.com)**

11:30 AM – 12:00 PM

How Pilot Testing Changed the Design of a PFAS Treatment Facility

**Sophia Liskovich, Gannett Fleming (sliskovich@gfnet.com)**

*Jackie Mawalla, Gannett Fleming*

12:00 PM – 12:30 PM

Effective PFAS Removal and Waste Reduction using  
a Novel Micro-adsorbent Slurry & Separations Technology

**John Dyson, Aqua-Aerobic Systems (jdyson@aqua-aerobic.com)**

2:00 PM – 2:30 PM

Ending the Use of Chlorine Gas at Major City of Baltimore Drinking  
Water Sites – How to Improve Safety and Reduce Chemical Demands

**Tim Weaver, Whitman, Requardt & Associates (tweaver@wrallp.com)**

2:30 PM – 3:00 PM

Lead Sampling Plan Development for  
Schools and Childcare Facilities Under the LCRR

**Baljit Sidhu, Hazen and Sawyer (bsidhu@hazenandsawyer.com)**

# Technical Program Schedule

## Thursday, August 29, 2024

Speakers' names are in bold italics, and co-speakers' names are in italics.

### ROOM 207-208 • WATER TREATMENT (CONTINUED)

3:00 PM – 3:30 PM

Leveraging BAC to Remove HAA in Drinking Water – Innovative DBP Treatment Pilot Testing to Supplement Charles County's Water Supply

**Christopher Ramo, Hazen and Sawyer** ([cramo@hazenandsawyer.com](mailto:cramo@hazenandsawyer.com))

*Alicia Afroilan, Charles County*

*Meric Selbes, Hazen and Sawyer*

4:00 PM – 4:30 PM

Novel UVLED Reactor for Indirect Potable Reuse

**Tara Randall, HDR** ([tara.randall@hdrinc.com](mailto:tara.randall@hdrinc.com))

4:30 PM – 5:00 PM

What Happens During Drought? Impacts on Sourcewater and Treatment

**Priscilla To, WSSC Water** ([priscilla.to@wsscwater.com](mailto:priscilla.to@wsscwater.com))

5:00 PM – 5:30 PM

Carbon-Based Advanced Treatment

Brings (Direct) Potable Reuse to the East

**Eva Steinle-Darling, Carollo** ([esd@carollo.com](mailto:esd@carollo.com))

### ROOM 215 • UTILITY MANAGEMENT

8:30 AM – 9:00 AM

Lessons Learned from Operational Excellence and

Collaborative Culture at the Patapsco Wastewater Treatment Plant

**Chris Saunders, Hazen and Sawyer** ([csaunders@hazenandsawyer.com](mailto:csaunders@hazenandsawyer.com))

*Neal Jackson, Baltimore City*

9:00 AM – 9:30 AM

Tackle Brain Drain:

Howard County's Approach to Capture Institutional Knowledge

**Ben Asavakarin, JMT** ([basavakarin@jmt.com](mailto:basavakarin@jmt.com))

*Sanjay Kulkarni, Howard County*

9:30 AM – 10:00 AM

Work at Baltimore City DPW – Why Would You Do That?

**Paul Sayan, City of Baltimore Dept. of Public Works**

([paul.sayan@baltimorecity.gov](mailto:paul.sayan@baltimorecity.gov))

*Brian Ball, City of Baltimore*

*Timothy Wolfe, City of Baltimore*

# Technical Program Schedule

## Thursday, August 29, 2024

Speakers' names are in bold italics, and co-speakers' names are in italics.

### ROOM 215 • UTILITY MANAGEMENT (CONTINUED)

11:00 AM – 11:30 AM

Delivering on a Critical Linear Infrastructure Project for Garrett County:  
Meeting Constructability Challenges while Providing Resiliency

**Ranjith Ravindiran, A. Morton Thomas and Associates**

*(rravindiran@amtengineering.com)*

*Bobby Witt, Garrett County*

11:30 AM – 12:00 PM

Understanding Non-Revenue Water Using AWOL

**Michael Skerritt, Mott MacDonald (michael.skerritt@mottmac.com)**

*Kenrick StLouis, DC Water*

*Tayina Tardieu, McKissack & McKissack*

12:00 PM – 12:30 PM

A Sustainable Strategy for WSSC's Water Supply and Treatment:  
Climate Impacts, Water Quality Trends & Regulatory Challenges

**Naomi Souza, Ramboll (naomi.souza@ramboll.com)**

*Narayan Venkatesan, Ramboll*

*Priscilla To, WSSC Water*

2:00 PM – 2:30 PM

Holistic Design Processes and Post Construction  
Monitoring of In-Stream Asset Protection

**Jessica Krueger, RK&K (jkrueger@rkk.com)**

*Chris Caro, WSSC Water*

2:30 PM – 3:00 PM

Collaboration in Mitigating SSO Risk in Buried Stream Crossing

**Steve Bian, DC Water (steve.bian@dcwater.com)**

*Tim Bako, Spiniello*

3:00 PM – 3:30 PM

Cherry Hill Drainage Improvement to Mitigate  
Flooding in Baltimore's Cherry Hill Neighborhood

**Elizabeth Kanner, STV Inc. (elizabeth.kanner@stvinc.com)**

*Jalil Abdul, Baltimore City*

4:00 PM – 4:30 PM

Lead Free DC – Public/Private Partnership,  
Lead Pipe Replacement Program (LPRAP)

**Lori Reid, Ramboll (lori.reid@ramboll.com)**

*Gian Cossa, DC Water*

# Technical Program Schedule

## Thursday, August 29, 2024

Speakers' names are in bold italics, and co-speakers' names are in italics.

### ROOM 215 • UTILITY MANAGEMENT (CONTINUED)

4:30 PM – 5:00 PM

What Happens When Your Lead Inventory Map Needs to Account for Data that Is "Mostly" Correct: How DC Water Updated its Inventory Map

**Andrew Welter, Ramboll** ([andrew.welter@ramboll.com](mailto:andrew.welter@ramboll.com))

*Matthew Young, CDM Smith*

*William Elledge, DC Water*

5:00 PM – 5:30 PM

A Lead and Copper Rule Service Line Inventory Through a Digital Approach: A Case Study from the City of Rockville, MD

**Chakavak Hajsoleymani Kamran, CDM Smith** ([kamranc@cdmsmith.com](mailto:kamranc@cdmsmith.com))

*Matthew Brew, City of Rockville*

*Trevor McProud, CDM Smith*

### ROOM 217 • COLLECTION SYSTEMS

8:30 AM – 9:00 AM

Kicking It Up a Notch: Year 2 in Modernizing CSO Management

**Jennifer Baldwin, Jacobs** ([jennifer.baldwin@jacobs.com](mailto:jennifer.baldwin@jacobs.com))

*Patrexia Tampon, Jacobs*

9:00 AM – 9:30 AM

Best Practices Learned from 20 Years of Large Diameter PCCP Force Main Monitoring & Management

**Philip Hwang, Pure Technologies (a Xylem Brand)**

([philip.hwang@xylem.com](mailto:philip.hwang@xylem.com))

*Mohina Sharma, Xylem*

9:30 AM – 10:00 AM

Leveraging Real-Time Performance Data for Daily Operations and Long-Term Planning of Wastewater Collection Systems

**Don Shields, New Jersey American Water**

([donald.shields@amwater.com](mailto:donald.shields@amwater.com))

*John Marciszewski, SmartCover*

11:00 AM – 11:30 AM

Collaborative Delivery & Innovation Pass the Test of an At-Risk Wastewater Interceptor Rehabilitation Challenge

**Chris Garrett, Brown and Caldwell** ([cgarrett@brwn Caldwell.com](mailto:cgarrett@brwn Caldwell.com))

*Getachew Melsew, DC Water*

# Technical Program Schedule

## Thursday, August 29, 2024

Speakers' names are in bold italics, and co-speakers' names are in italics.

### ROOM 217 • COLLECTION SYSTEMS (CONTINUED)

11:30 AM – 12:00 PM

Critical Thinking & Swift Mitigation in Saving a Century Old Masonry Trunk Sewer in Washington, DC

**Renni Zhao, PhD, DC Water** ([rzhao@dcwater.com](mailto:rzhao@dcwater.com))

*Steve Bian, DC Water*

*Tahir Qureshi, Engineer, DC Water*

12:00 PM – 12:30 PM

Repairing History – DC Water's Experience

Designing Rehabilitation of a 150-year Old Sewer

**Anthony Laufik, Greeley-Hansen** ([alaufik@greeley-hansen.com](mailto:alaufik@greeley-hansen.com))

*Haile Tsehayu, DC Water*

*Steve Bian, DC Water*

### ROOM 217 • OPERATIONS/MAINTENANCE

2:00 PM – 2:30 PM

Spinning Ain't Winning –

Properly Setting Minimum Speeds on VFD Driven Pumps

**Michael Bernard, Specific Energy** ([mike.bernard@specificenergy.com](mailto:mike.bernard@specificenergy.com))

2:30 PM – 3:00 PM

Cathodic Protection Installation and Testing

**Andrew Fuller, EDT Mid-Atlantic** ([andrew.fuller@edtinc.net](mailto:andrew.fuller@edtinc.net))

3:00 PM – 3:30 PM

Phased Construction for Expedited Gravity Thickener Rehabilitation

**Chris Painter, HDR Inc.** ([christopher.painter@hdrinc.com](mailto:christopher.painter@hdrinc.com))

*Jason Kerns, HDR Inc.*





# Technical Program Schedule

## Thursday, August 29, 2024

Speakers' names are in bold italics, and co-speakers' names are in italics.

### ROOM 217 • STORMWATER

4:00 PM – 4:30 PM

Predicting Interior Flooding:

Building an Integrated Flood Model for Washington, DC

**Christine Estes, AECOM** (*christine.estes@aecom.com*)

*Alireza Parhami, DC Water*

4:30 PM – 5:00 PM

Stormwater Utility: Revenue Generation and

Expenditure Patterns in the Chesapeake Bay Area

**Adrielli Bonfanti Pagnoncelli, Morgan State University**

(*adpag2@morgan.edu*)

5:00 PM – 5:30 PM

Using a Digital Twin and AI to Predict

Surface Water Quality and Flood Events

**Christopher Tryon, Mott MacDonald** (*christopher.tryon@mottmac.com*)



# Technical Program Schedule

## Friday, August 30, 2024

Speakers' names are in bold italics, and co-speakers' names are in italics.

### ROOM 201–202 • UTILITY MANAGEMENT

9:00 AM – 9:30 AM

How to Avoid the #1 Mistake in Public Communications  
Before Your Service Line Inventory Rollout

**Mike McGill, WaterPIO** ([mike@waterpio.com](mailto:mike@waterpio.com))

9:30 AM – 10:00 AM

Equitable Infrastructure Investments for Equitable Outcome –  
DC Water's Experience

**Getachew Melsew, DC Water** ([gmelsew@dcwater.com](mailto:gmelsew@dcwater.com))

*Jennifer Belknap, Carollo Engineers*

*William Elledge, DC Water*

10:15 AM – 10:45 AM

Innovative Project Delivery:  
CMAR Design-Build for Success in Water Projects

**Anna Kazasi, Virginia American Water** ([anna.kazasi@amwater.com](mailto:anna.kazasi@amwater.com))

*Thomas Lawlor, Bowen Engineering*

10:45 AM – 11:15 AM

Soooo... How Did Your First CMAR go?

**Jessica Hou, Gannett Fleming** ([jhou@gfnet.com](mailto:jhou@gfnet.com))

*Holly Anne Matel, HRSD*

*Kristina Bruns, Ulliman Schutte Construction*

11:15 AM – 11:45 AM

Why Would You Use Multi-prime Contracting When You Don't Have to?

**Thor Young, GHD** ([thor.young@ghd.com](mailto:thor.young@ghd.com))

*Steven Clark, GHD*

### ROOM 203–204 • WASTEWATER TREATMENT

9:00 AM – 9:30 AM

Growing Up Together Lessons Learned During Startup: Commissioning  
Sidestream Deammonification Concurrent with THP Digestion

**Paul Le Bel, Hazen and Sawyer** ([plebel@hazenandsawyer.com](mailto:plebel@hazenandsawyer.com))

*Matthew Van Horne, Hazen and Sawyer*

9:30 AM – 10:00 AM

Steam Treatment and Thermal Hydrolysis:

A Synergistic Approach in Solids Management

**Rafael Iboleon, Stantec** ([rafael.iboleon@stantec.com](mailto:rafael.iboleon@stantec.com))

# Technical Program Schedule

## Friday, August 30, 2024

Speakers' names are in bold italics, and co-speakers' names are in italics.

### ROOM 203-204 • SYSTEMS OPERATIONS

10:15 AM – 10:45 AM

An Instrument Calibration Program Is Key to Quality Water Treatment

**Charles Bartley**, *JJA Technical Services*

*(cbartley@jjatechnicalservices.com)*

*Jay Alford*, *JJA Technical Services*

10:45 AM – 11:15 AM

Staring into the Abyss: Using Remote Operated  
Submarines to Safely Inspect Underwater Infrastructure

**Prarthana Pradhan**, *Carollo Engineers (ppradhan@carollo.com)*

11:15 AM – 11:45 AM

Opening Opportunities with Cross-Connection Thinking –  
DC Water's Path to Enhancing their CCC Program

**Mangaliso Goba**, *Mott MacDonald (mangaliso.goba@mottmac.com)*

*Pierre Constant*, *DC Water*

### ROOM 207-208 • ETHICS

9:00 AM – 10:00 AM

Ethics Regulations and Cases in Engineering

**Samuel Grant**, *Whitman, Requardt and Associates, LLP*

*(smgrantdpw@yahoo.com)*

### ROOM 207-208 • WASTEWATER TREATMENT

10:15 AM – 10:45 AM

PFAS: The Latest on an Ever Evolving Regulatory Landscape –  
National & State Update

**Mary Firestone**, *Mid-Atlantic Biosolids Association (MABA)*

*(mfirestone@mabiosolids.org)*

10:45 AM – 11:15 AM

An Award-winning Gasification Technology  
Shows Capacity of destroying PFAS In Biosolids:  
Australian Initiative to Transform Sewage Sludge into Energy

**Shashank Khatiwada**, *Stantec (shashank.khatiwada@stantec.com)*

11:15 AM – 11:45 AM

PFAS in Biosolids: What Pros Need to Know

**Rashi Gupta**, *Carollo Engineers (rgupta@carollo.com)*

# Technical Program Schedule

## Friday, August 30, 2024

Speakers' names are in bold italics, and co-speakers' names are in italics.

### ROOM 215 • UTILITY MANAGEMENT

9:00 AM – 9:30 AM

Assessment of First Floor Elevations Using Unmanned Aerial Vehicles  
**Sean Farley, ARCADIS** ([sean.farley@arcadis.com](mailto:sean.farley@arcadis.com))

9:30 AM – 10:00 AM

Building Climate Resiliency into Flood-Prone Facilities  
**Rachel Albrecht, Albrecht Engineering, Inc.**  
([ralbrecht@albrechtengineering.com](mailto:ralbrecht@albrechtengineering.com))

10:15 AM – 10:45 AM

Preparing Your Water Utility for a Lower Carbon Future  
**Nicolle Boulay, Stantec** ([nboulay@stantec.com](mailto:nboulay@stantec.com))

10:45 AM – 11:15 AM

Planning for The Future: Coastal Resilience Modeling For Public Utilities  
**Erin Rooney, HDR Inc.** ([erin.rooney@hdrinc.com](mailto:erin.rooney@hdrinc.com))  
*David Moore, HDR Inc.*

11:15 AM – 11:45 AM

Building Resilience and Adapting to Climate Change  
Impacts for Drinking Water & Wastewater Utilities  
**Audrey Ramming, EPA** ([ramming.audrey@epa.gov](mailto:ramming.audrey@epa.gov))



# Technical Program Schedule

## Friday, August 30, 2024

Speakers' names are in bold italics, and co-speakers' names are in italics.

### ROOM 217 • STORMWATER

9:00 AM – 9:30 AM

Frederick County's Approach to Water Resources Element Updates

***Ted Saltos, Dewberry (tsaltos@dewberry.com)***

*Jessica Seipp, Dewberry*

*Kimberly Gaines, Frederick County*

9:30 AM – 10:00 AM

Leveraging Private Ownership and Real-Time Control for  
Cost-Effective Stormwater Treatment in Howard County, MD

***Jason Murnock, OptiRTC, Inc. (jmurnock@optirtc.com)***

*Lindsay DeMarzo, Howard County*

10:15 AM – 10:45 AM

A 21st Century Tool to Address 21st Century Flooding:  
Baltimore's Approach to Identifying Concern Areas and Solutions

***Matthew Zelin, Hazen and Sawyer (mzelin@hazenandsawyer.com)***

*Jemil Yesuf, Baltimore City*

10:45 AM – 11:15 AM

Integrated Short- and Long-Term Approaches to  
Reduce Nutrient Loading at a Major Recreation Lake Amenity

***Christina Hughes, Ramboll (cmhughes@ramboll.com)***

*Michael Manning, Ramboll*

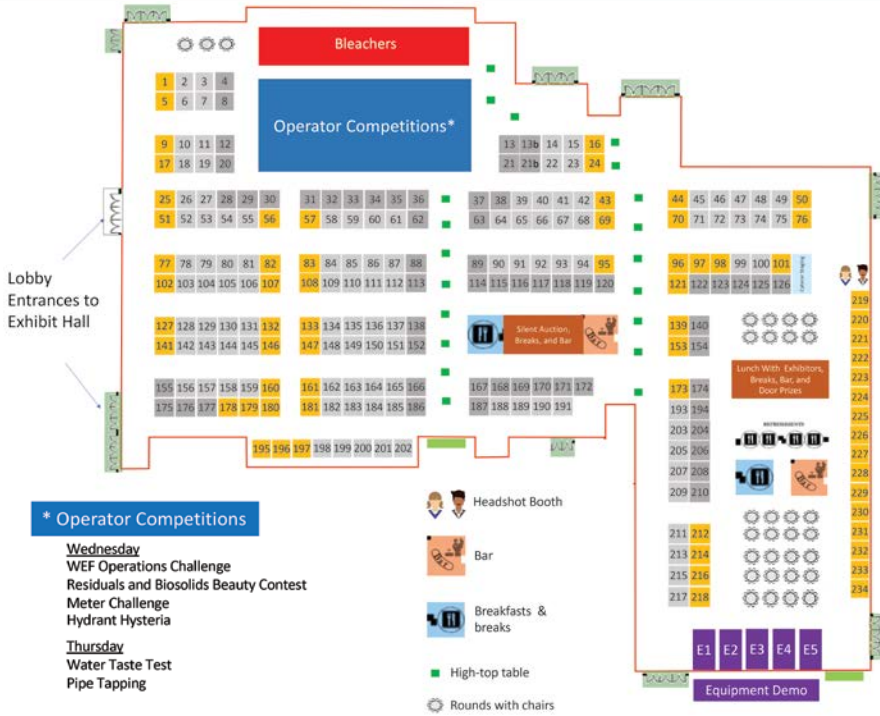
11:15 AM – 11:45 AM

Stormwater Management for Flood Resiliency:  
A Comparison of Approaches

***Matthew Vanaskie, HRG (mvanaskie@hrg-inc.com)***



# Exhibit Hall Layout



## Exhibit Hall Hours

**Tuesday, August 27**  
**Exhibitor Move-In**  
 8:00 AM – 6:30 PM

**Wednesday, August 28**  
 7:30 AM – 5:00 PM

**Thursday, August 29**  
 7:30 AM – 12:30 PM

**Thursday, August 29**  
**Exhibitor Move-Out**  
 12:30 PM – 4:00 PM

### \* Operator Competitions

- Wednesday**  
 WEF Operations Challenge  
 Residuals and Biosolids Beauty Contest  
 Meter Challenge  
 Hydrant Hysteria
- Thursday**  
 Water Taste Test  
 Pipe Tapping

## Exhibitors

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# Exhibitors

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# Board Members & Committee Chairs

## CSAWWA 2023–2024 Officers and Committee Chairs

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Chair, Awards Chair, Finance Chair .....	Elford Jackson
Chair Elect, Tri-Con Program .....	Anna Kazasi
Past Chair, Nominations .....	Jay Kirk
Director (2023–2026) .....	Andy Cooper
Secretary/Treasurer .....	Benjamin Thompson
Asst. Secretary/Treasurer, By-Laws Chair .....	Annie Ding
Trustee – Events.....	Ethan Vidal
Trustee – Philanthropic and Workforce.....	Abbie Smith
Trustee – Stakeholder Engagement.....	Nicole Horvath
Trustee – Technical Committees .....	Jeremy Hise
Executive Director.....	Rachel Ellis
Asset Management .....	Yudu (Sonia) Wu
Asset Management Vice Chair .....	Vennila Durai
AWWA Training Grants.....	John Moore
<i>Chesapeake Magazine</i> Editor; Scholarship Fund Board; Tri-Con Committee Voting Member.....	Teresa DiGenova
<i>Chesapeake Magazine</i> Vice Chair .....	Andrew Fuller
Communications/Public Relations.....	Allison Dyott
Community Engagement .....	Kimberly Cluney
Community Engagement Vice Chair.....	Nick D’Angelo
CTA Board Liaison .....	Eric Held
Delaware/Eastern Shore .....	Joe Nattress
Diversity, Equity, Inclusion; Scholarship Fund Board; Short Courses Committee.....	Angela Ballard-Landers
Diversity, Equity, Inclusion Vice Chair .....	Becc Jimenez
Government Affairs.....	Chris Phipps
Government Affairs Vice Chair .....	Karen Dettmer
CTA Director, Manufacturers and Associates Committee (MAC), Tri-Con Committee Voting Member.....	Eric Held
MDE Liaison.....	Dee Settar
Membership .....	Ivy Swann
Membership Vice Chair .....	Michael Skerritt



# Board Members & Committee Chairs

## CSAWWA 2023–2024 Officers and Committee Chairs *(Continued)*

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Mid-Atlantic Utility Conference Chair .....	Chein-Chi Chang
Mid-Atlantic Utility Conference Vice Chair .....	Chris Phipps
Mid-Atlantic Utility Conference Vice Chair .....	Art Shapiro
Mid-Atlantic Utility Conference Vice Chair .....	Joseph Siemek
Operations and Safety Co-Chair.....	Patrick Burke
Operations and Safety Co-Chair; Short Courses.....	Robert Swann
Operations and Safety Vice Chair.....	James (JC) Langley
Operator Competitions .....	Bob Johns
Philanthropy; Spring Meeting.....	Carrie Kruger
Scholarship Fund Board Chair.....	Ann Mulhern
Scholarship Fund Board; Tri-Con Committee Voting Member.....	Sophia Liskovich
Short Courses Committee.....	Dinesh Bahadurshingh
Short Courses Committee.....	Jay Price
Short Courses Committee.....	Dave Wilkins
Source Water Protection .....	Josh Weiss
Top Ops .....	Anthony Rocco
Tri-Con Committee Voting Member.....	Raj Arora
Tri-Con Committee Voting Member.....	Erica Whorley
UMD Student Chapter .....	Catherine Corey
UMD Student Chapter .....	Rebecca Patterson
Water Distribution .....	James LeMire
Water Distribution Vice Chair.....	Jason Poole
Water Quality .....	Nicolle Boulay
Water ReUse (Joint with CWEA).....	Kelly Landry
Water Taste Test.....	Christina Swann
YPs and Students .....	Jeffrey Lorencen
YPs and Students Vice Chair.....	Jason Lee

# Board Members & Committee Chairs

## CWEA 2023–2024 Officers & Committee Chairs

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President .....	Clarence Beverhoudt
President-Elect .....	Gary Moore
Vice-President.....	Alana Gildner
Secretary .....	Cheryl Paulin
Past-President.....	Cece Nguyen
Treasurer.....	Danielle Sheahan
CTA Representative.....	Kraig Moodie
MD Trustee.....	Jegnaw Essatu
DC Trustee .....	Jessica Shiao
DE Trustee.....	Chaka Kamran
WEF Delegate .....	Ellen Frketic
WEF Delegate .....	Laura Oakes
Utility Member Representative.....	Yvette Judge
Asset Management Chair.....	Bhaumik Hotha
Asset Management Vice-Chair.....	Theresa Bruton
Audit Chair.....	Kraig Moodie
Awards Co-Chair.....	Gary Moore
Awards Co-Chair.....	Alana Gildner
Awards Vice-Chair.....	Eric Held
Budget & Finance Chair.....	Ellen Frketic
Budget & Finance Vice-Chair .....	Laura Oakes
Business Practices Chair .....	Gary Moore
Bylaws Chair .....	Alan Will
Collection Systems Chair.....	Bryant Welch
Collection Systems Vice-Chair.....	Charles Poskas
DE&I Chair.....	Eric McFarland
DE&I Vice-Chair .....	Monty Simon
Government Affairs/Fly-In Co-Chair.....	Liz Colletti
Government Affairs/Fly-In Co-Chair .....	Justin Hall
Laboratory Practices Chair .....	David Wildasin
Laboratory Practices Vice-Chair .....	Dave Baker
Leadership On-Boarding Chair.....	Gary Moore
Leadership On-Boarding Vice-Chair .....	Alana Gildner
MDE W/WW Board Liaison .....	Clark Howells
Membership Chair.....	Laura Oakes
Membership Vice-Chair.....	Gregg Iskra

# Board Members & Committee Chairs

## CWEA 2023–2024

### Officers & Committee Chairs *(Continued)*

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Nominations Chair.....	Gary Moore
Nominations Vice-Chair .....	Alana Gildner
Plant Operations, Maintenance, & Safety Chair.....	Joe Wright
Plant Operations, Maintenance, & Safety Vice-Chair.....	Tyrus Hunter
Public Communications & Outreach Chair.....	Emma Danz
Public Communications & Outreach Co-Chair .....	Brandon Friedland
Publications Chair .....	Chaka Kamran
Publications Vice-Chair.....	Islam Khallaf
Residuals & Biosolids Management Chair.....	Hahns Hairston
Residuals & Biosolids Management Vice-Chair .....	Mark Ramirez
Sponsorship Chair.....	Andrew Kreider
Spring Meeting Co-Chair.....	Chrissie Swann
Spring Meeting Co-Chair.....	Bethel Abate
Spring Meeting Vice-Chair.....	Charles Poskas
Stormwater Co-Chair.....	Beth Forbes
Stormwater Co-Chair.....	Alexi Sanchez de Boado
Stormwater Vice-Chair.....	Justin Bell
Strategic Planning & Implementation Chair.....	Yvette Judge
Student Activities & Student Chapter Liaison .....	Agam Singh
Student Activities Co-Chair – Joint Hiring Event .....	Alexis Wingfield
Student Activities Co-Chair – Student Design Competition .....	Tom Howard
Technical Education Chair.....	Matt Zelin
Technical Education Vice-Chair.....	Chike Monwuba
Training, Review, & Evaluation Chair.....	Clark Howells
Utility Management Conference Chair.....	Gian Cossa
Water Reuse Chair.....	Andrew Kreider
YH2O/Mentorship Co-Chair .....	Dennis Hasson
YH2O/Mentorship Co-Chair.....	Moalie Jose
YH2O/Mentorship Vice-Chair .....	Kraig Moodie
Young Professionals Co-Chair.....	Tom Howard
Young Professionals Co-Chair.....	Carlos Mejia
Young Professionals Vice-Chair.....	Travis Gold
CWEA Short Course Committee.....	Clark Howells, Bill Farrell, Noelle Anuskiewicz, Wayne Reed
CWEA Tri-Association Conference Reps.....	Gian Cossa, Clarence Beverhoudt, Pono Hanson, Jegnaw Essatu

# Board Members & Committee Chairs

## WVOA 2023–2024 Officers & Committee Chairs

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President .....	Bob Johns
President Elect.....	Bill Shreve, Sr.
Past President .....	Scott Getchell
Secretary .....	Kristy McAndrew
Treasurer.....	Mike Emery
Eastern Shore Director .....	Jake Bryan
Central Section Director.....	Winfield McKell
Southern Section Director .....	Tom Spalding, Jr.
Western Section Director .....	Bruce Darner
Awards.....	Kevin Quinn
By-Laws .....	Karl Ott
Board of Certification Liaison, Delaware.....	Sarah Smith
Board of Certification Liaison, Maryland.....	Bruce Darner
<i>Ecoletter</i> Magazine .....	Floyd Johnson
Membership.....	Scott Getchell
Nominations.....	Bill Shreve, Sr.
Public Education.....	Sharita Lyle
Public Relations.....	Winfield McKell
Short Course.....	Winfield McKell
Training.....	Kevin Quinn
TRE Committee Representative.....	Bill Shreve, Sr.
Tri-Conference.....	Mike Emery
Chesapeake Tri Association .....	Karl Ott
Website Job Bank.....	Anthony Rocco

# Board Members & Committee Chairs

## CSAWWA 2024–2025 Slate of Officers

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Chair.....	Anna Kazasi
Chair Elect.....	Benjamin Thompson
Past Chair.....	Elford Jackson
Secretary-Treasurer.....	Annie Ding
Assistant Secretary-Treasurer.....	Abbie Smith
Director (2023–2026).....	Andy Cooper
Trustee.....	Nicole Horvath
Trustee.....	Ethan Vidal
Trustee.....	James LeMire
Trustee.....	Robert Swann

## CWEA 2024–2025 Slate of Officers

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Vice-President.....	Jegnaw Essatu
Secretary.....	Kraig Moodie
Maryland Trustee.....	David Wildasin
Utility Member Representative.....	Yvette Judge

## WVOA 2024–2025 Slate of Officers

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President.....	Bill Shreve, Sr.
President Elect.....	Paul Hignutt
Past President.....	Bob Johns
Secretary.....	Kristy McAndrew
Treasurer.....	Mike Emery

# Hotel Information

## 2024 Conference Hotels

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The Conference Committee has negotiated blocks of rooms at Ocean City hotels for the 2024 Tri-Association Conference.

\*Rates do not include tax

### **Aloft (Co-Host Hotel)**

4501 Coastal Hwy (45th Street)

Miles to Convention Center: .5

\$269 – \$289 (Std King/Double Queen/Double Queen Bayview)

Call 888-236-2427 and request the special

**Tri-Association Conference** rate. (Cutoff Date – **08/06/24**)

**Sold Out**

### **Grand Hotel (Co-Host Hotel)**

2100 Baltimore Ave (21st Street)

Miles to Convention Center: 2.5

\$162 – \$227 (City View/Partial Ocean View/Direct Ocean Front)

Call 410-289-6191 and request the special

**Tri-Association Conference** rate. (Cutoff Date – **08/06/24**)

<https://grandhoteloceancity.com>

### **Ashore Resort & Beach Club (Formerly Fontainebleau)**

10100 Coastal Hwy (101st Street)

Miles to Convention Center: 3.9

\$215 (Std Queen/Queen Ocean View) Plus, Resort Fee

Call 410-524-3535 and request the special **Chesapeake**

**Tri-Association Conference** rate. (Cutoff Date – **08/06/24**)

<https://ashoresorttoceancity.com>

### **Best Western OC Hotel & Suites**

5501 Coastal Hwy (56th Street)

Miles to Convention Center: 1

\$129 – \$159 (Std 2 Queen/2 Queen Suite)

Call 443-664-4001 and request the special

**Tri-Association Conference** rate.

<https://bestwesternocsuites.com/ocean-city-md-hotel-information/?ga=2.92907933.1227011345.1677953636-1184014008.1677953636>

# Hotel Information

## Best Western Plus

6007 Coastal Hwy (60th Street)

Miles to Convention Center: 1.4

\$109 (2 Queen Standard)

Call 410-524-6100 and request the special

**Tri-Association Conference** rate.

[www.bestwestern.com/en\\_US/book/hotels-in-ocean-city/](http://www.bestwestern.com/en_US/book/hotels-in-ocean-city/)

[best-western-plus-ocean-city/propertyCode.21062.html](http://best-western-plus-ocean-city/propertyCode.21062.html)

## Commander Hotel

1400 Atlantic Ave (14th Street)

Miles to Convention Center: 3

\$265 (Cabana Room Poolside)

Call 888-289-6166 and request the special

**Tri-Association Conference** rate. (Cutoff Date – **07/27/24**)

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

## Courtyard by Marriott

Two 15th Street

Miles to Convention Center: 3

\$339 (2 Queen City View)

Call 410-289-5008 and request the special **Chesapeake Tri-Association**

**Conference** rate or register online. (Cutoff Date – **08/06/24**)

[www.marriott.com/en-us/hotels/](http://www.marriott.com/en-us/hotels/)

[sbyoc-courtyard-ocean-city-oceanfront/overview](http://sbyoc-courtyard-ocean-city-oceanfront/overview)

## DoubleTree by Hilton Oceanfront

3301 Atlantic Ave (33rd Street)

Miles to Convention Center: 1

\$379–\$429 (2 Queen Ocean View or 2 Queen Oceanfront)

Call 410-289-1234 and request the special **Chesapeake Tri-Association**

**Conference** rate or register online. (Cutoff Date – **08/06/24**)

[www.hilton.com/en/hotels/bwiocdt-doubletree-ocean-city-oceanfront](http://www.hilton.com/en/hotels/bwiocdt-doubletree-ocean-city-oceanfront)

# Hotel Information

## Dunes Suites

27th Street & Oceanfront

Miles to Convention Center: 2.4

\$244 (Oceanfront)

Call 410-289-0891 and request the special **Chesapeake Tri-Association Conference** rate or register online. (Cutoff Date – 08/06/24)

<https://dunessuitesoc.com>

## Hilton Garden Inn (Formerly Dunes Manor)

2800 Baltimore Ave (28th Street)

Miles to Convention Center: 2.5

\$320 (Double Queen Oceanfront)

Call 1-800-233-1234 and request the special

**Tri Association Conference 2024** rate. (Cutoff Date – 08/06/24)

[www.hilton.com/en/hotels/sbyftgi-hilton-garden-inn-ocean-city-oceanfront](http://www.hilton.com/en/hotels/sbyftgi-hilton-garden-inn-ocean-city-oceanfront)

## Holiday Inn Oceanfront

6600 Coastal Hwy (67th Street)

Miles to Convention Center: 1.8

\$259 (Eastern Oceanfront)

Call 410-524-1600 and request the special **Chesapeake Tri-Association Conference** rate or register online. (Cutoff Date – 08/06/24)

[www.ihg.com/holidayinn/hotels/us/en/ocean-city/ocemd/hoteldetail?cm\\_mmc=BingMaps\\_-\\_HI\\_-\\_US\\_-\\_OCEMD](http://www.ihg.com/holidayinn/hotels/us/en/ocean-city/ocemd/hoteldetail?cm_mmc=BingMaps_-_HI_-_US_-_OCEMD)

## Princess Bayside

4801 Coastal Hwy (48th Street)

Miles to Convention Center: 0.6

\$114–\$164 (Standard Room/Deluxe Efficiency/Bayfront Efficiency)

Call 410-723-2900 and request the special

**Chesapeake Tri Association 2024** rate. (Cutoff Date – 08/06/24)

<https://princessbayside.com>



# Hotel Information

## Princess Royale

9110 Coastal Hwy (91st Street)

Miles to Convention Center: 3.5

\$229–\$519 (Oceanview/Pool view; Oceanfront; Condo; Oceanfront Deluxe)

Call 1-800-476-9253 or 410-524-7777 and request the special

**Chesapeake Tri Association** rate. (Cutoff Date – **08/06/24**)

<https://princessroyale.com>

## Quality Inn Oceanfront

5400 Coastal Hwy (54th Street)

Miles to Convention Center: 1.3

\$174–\$209 (2 Queen Atrium or 2 Queen Oceanfront)

Call 410- 524-7200 and request the special **Chesapeake Tri-Association Conference** rate or register online. (Cutoff Date – **08/06/24**)

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

## Residence Inn by Marriott

300 Seabay Lane (61st Street)

Miles to Convention Center: 1.6

\$259 (Bayview Queen or King Studio)

Please use the online registration link only. (Cutoff Date – **08/06/24**)

[www.marriott.com/en-us/hotels/sbyro-residence-inn-ocean-city/overview](http://www.marriott.com/en-us/hotels/sbyro-residence-inn-ocean-city/overview)



***Thank you RCS for 9 great years!***

*RCS, our Registrar, has been a big part of the success of this conference over several years.*

# Registration Information

## Registration Information

Early Bird Registration Ends **August 6, 2024** at 11:59 PM, after which time Standard Rates apply.

*Standard Rates are \$75.00 more than Early Bird rates shown in the table.*

EARLY BIRD REGISTRATION RATES					
Registration Options	Member	Certified Operator	Non-Member	Full-Time Student	Retiree
Full Conference: Complete Package	\$350	\$290	\$440	N/A	N/A
Full Conference: No Ticketed Events	\$260	\$200	\$350	\$75	\$125
One-Day Registration: Wednesday	\$220	\$150	\$320	\$30	N/A
One-Day Registration: Thursday	\$220	\$150	\$320	\$30	N/A
One-Day Registration: Friday	\$120	\$100	\$210	\$30	N/A

*To get the Member rate, you or your utility must be a current member of one of the three associations (CWEA, CSAWWA, or WWOA). Your membership in AWWA or WEF must be with the Chesapeake affiliate/section.*

*To get the Retiree rate, you must not be working in the industry at this time.*

*All attendees must register for the 2024 Tri-Association Conference online. You can access registration through the conference website:*  
**[www.ChesapeakeTriCon.org](http://www.ChesapeakeTriCon.org)**

# Registration Information

## **Early Bird Registration (\$75 savings) Ends August 6, 2024, 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. All attendees receive free breakfasts, breaks, and lunch with exhibitors, and the Shooters Happy Hour.

## **Full Conference, Complete Package**

Includes access to Technical Sessions, Exhibit Hall, non-ticketed Social Events, one ticket to Wednesday Night Seacrets Event, and one ticket to an Association Luncheon/Meeting of your choice (CSAWWA, CWEA, or WWOA).

## **Full Conference, No Ticketed Events**

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

## **Operator Competition Teams**

Team members will receive a "Full Conference No Ticketed Events" registration for the reduced rate of \$100.00 per person. Register through the system online and be sure to select "Operator Competition" when you start registration.

## **One Day Registration**

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

## **Exhibitor Attendee Registrations**

After June 1, all exhibiting firms will receive an email with full instructions on registering attendees. Each booth comes with two free badges, and the option to purchase up to two additional Exhibitor Badges at \$150 each. Exhibitor badges do NOT include tickets to conference special events, such as the 5K Fun Run, Seacrets Fun Night, and Association Business Luncheons.

# Registration Information

## Additional Selections

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### Golf at the Ocean City Golf Club, Tuesday, August 27, 2024

Ocean City Golf Club, Berlin, MD. Sign-In 11:00 AM to 12:00 PM, Shotgun Start at 12:00 PM. Format: Captain's Choice. Space may be limited, be sure to register early! **Cost: \$100 per individual and \$400 for a foursome.**

### Pre-Conference Workshops

Three workshops are planned for Tuesday, August 27 from 1:00 PM to 5:00 PM: *Water Infrastructure Funding presented by U.S. EPA;* *Demystifying Artificial Intelligence and Machine Learning – Tools for the Future presented by CWEA and CSAWWA Asset Management Committees;* and *Cybersecurity presented by Kevin Morley, Manager, Federal Relations, AWWA.*

The workshops have been submitted for PE and operator CEUs in Maryland and Delaware. **Early Bird Registration Cost: \$45/ Standard Registration Cost: \$50**

### Half-Day Operator Classes: New this year!

Four half-day operator classes will be offered this year:

- Wednesday, August 28: *Basic Motor and Pump Maintenance (Non-Process) – 8:00 AM to 12:00 pm. Coagulation, Flocculation, Sedimentation & Filtration (Process) – 1:30 PM to 5:00 PM.*
- Thursday, August 29: *Advanced Wastewater Class (Process) – 8:30 AM to 12:30 PM. Process Math for Operators (Process) – 2:00 PM to 5:30 PM.*

**Early Bird Registration Cost: \$25 per class/Standard Registration Cost: \$30 per class. You must be registered for the conference.**

### 5K Fun-Run/Walk, Wednesday, August 28, 2024

The Fun-Run/Walk will be held on Wednesday at 7:00 AM on the Boardwalk at the Grand Hotel (21st Street). Registration includes t-shirt, water, snack, and prizes. **Early Bird Registration Cost: \$35/Standard Registration Cost: \$45**

### Women in Water Networking Event, Wednesday, August 28, 2024

All are welcome to join and participate in engaging conversations and networking. Please join us in the Bayfront Ballroom on the second floor from 5:00 PM to 6:30 PM to share stories of volunteering, mentoring, and navigating meaningful ways of lending a hand. **No cost but you must register.**

# Registration Information

## Fun Night at Seacrets, Wednesday, August 28, 2024

Note: Seacrets tickets must be purchased by Tuesday, August 27, 2024. NO INDIVIDUAL TICKETS WILL BE SOLD AT THE CONFERENCE ON WEDNESDAY OR AT THE DOOR. Must be 21 years or older to enter.

Music by *The Way Outs*. **Cost: \$75 per person**

## Business Luncheons/Meetings, Thursday, August 29, 2024

All three organizations (CSAWWA, CWEA, and WWOA) will hold their annual business luncheons/meetings concurrently on Thursday. Tickets are required for attendance at the business lunch, and exhibitors receive two tickets to their choice of association luncheon with their booth.

**Cost: \$45 per ticket.**

## Young Professionals Happy Hour, Thursday, August 29, 2024

All are welcome to join the Young Professionals on Thursday for a fun night of networking! We will be enjoying happy hour and appetizers at **Alley Oops Midtown Bowling Alley** on 56th Street from 6:30 to 8:30 PM. Space is limited to 70 people, first come, first serve. Registration includes one happy hour drink and appetizers. **Cost: \$20 per person**

## Sunrise Yoga on the Beach, Friday, August 30, 2024: *New this year!*

Start your day off with Sunrise Yoga to be held on Friday at 6:15 AM to 7:30 AM on the beach at the Grand Hotel (21st Street).

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

## 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. **Cost: \$135 per guest. Guest tickets are intended for those persons accompanying an attendee for non-business-related purposes. All attendees wishing to conduct business must register for the conference.**

## Free Rides on Ocean City Buses!

All conference attendees, exhibitors and registered guests can ride the Ocean City buses free of charge by showing their 2024 Tri-Association Conference Name Badge between Tuesday August 27, 2024, at 2 PM and Friday August 30, 2024, at Noon.

# Registration Information

## The Fine Print

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### Payment Methods

Registration can only be purchased using a credit card – no cash or checks will be accepted for registration either in advance or at the conference. Upon completion of your registration, you will receive confirmation that will show what was purchased, the type of payment used, and the amount paid.

### Cancellations

All cancellation requests must be made in writing and received by the Registrar no later than August 6, 2024, at 11:59 PM (see *Contact the Registrar* for email address). Refunds will be issued minus a 20% administrative fee for cancellations received before August 6, 2024, at 11:59 PM. No refunds will be issued for requests received after August 6, 2024, at 11:59 PM.

### On-Site Registration

On-site registration will be available at the convention center at the Registration Desk. Note: Lines may be long for on-site registration so allow plenty of time to register before the sessions. Advance online registration is encouraged: [www.chesapeaketricon.org](http://www.chesapeaketricon.org).

### Registration Information

Registered attendees can pick up their conference badge and tickets at the Registration Desk. Technical Session Attendance Forms, Conference Brochure, and any updates to conference information will be available at the Information Desk.

### Contact the Registrar

If you have questions about the on-line registration process or systems, please contact RCS at [tricon2024@rcsreg.com](mailto:tricon2024@rcsreg.com) or (805) 654-0171.

For all other general conference information, please contact us at [info@ChesapeakeTricon.org](mailto:info@ChesapeakeTricon.org) – we will respond within one business day.

***CWEA, WWOA, AND CSAWWA thank you for your support!***





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