



American Water Works
Association

VirginiaSection

Plant of the Future- What Will Drive Long-Term Changes

***Drinking Water Quality and Research Committee
April 19, 2023***



Seminar Preview

<https://vaawwa.org/events/dwqr-2023/>

PROGRAM SCHEDULE

Wednesday, April 19, 2023

8:00 am - 4:00 pm

University of Richmond

Jepson Alumni Center

*Speakers and Schedule
Subject to Change*

6 Engineering CEC Expected
5.5 Water Operator CPE Expected



8:00 am

Seminar Check In And Continental Breakfast

Networking Opportunity

8:30 am

Keynote Address

Presented By: *Dwayne Roadcap, Director*

Virginia Department of Health, Office of Drinking Water

8:45 am

Regulatory Update: PFAS, LCRR, and Beyond

Presented By: *Steve Via, Director of Federal Relations*

American Water Works Association



9:15 am

Microplastics in Our Water: Issues, Techniques, and Case Studies

Presented By: *Nicole Fahrenfeld, PhD*

Associate Professor of Civil and Environmental Engineering, Rutgers University



10:00 am

Networking Break

10:15 am

Water Supply Resiliency in the Metropolitan Washington Region- Past, Present, and Future

Presented By: *Steven E. Bieber, Water Resources Program Director*

Metropolitan Washington Council of Governments



11:00 am

Better with Age: Ozone 's History and Continued Evolution at the Mannheim Water Treatment Plant

Presented By: *Mike McKie, Water Systems Engineer*

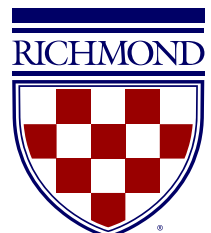
C3 Water



11:45 am

Networking Lunch

University of Richmond
Jepson Alumni Center
442 Westhampton Way
Richmond, VA 23229



12:30 pm

Planning and Implementation of the Trap Rock WTP



Presented By: *Jessica Edwards-Brandt, Director- Water Operations
Loudoun Water*

1:00 pm

Doubling Down on Packaged Treatment to Maximize Capacity and Improve Quality



Presented By: *David Jarrell, Director of Operations, Rapidan Service Authority and
Rob Mangrum, Consultant, Mangrum Consulting and Design*

1:30 pm

Granular Activated Carbon Treatment at Rivanna Water and Sewer Authority



Presented By: *David Tungate, Director of Operations
Rivanna Water and Sewer Authority*

2:00 pm

Networking Break

2:15 pm

Cybersecurity and Resiliency for the Now, Next and After Next: How Will Water/Wastewater Manage?



Presented by: *Roger Caslow
Hampton Roads Sanitation District*

3:00 pm

Moving the Needle: A Comprehensive X-Functional Approach to Innovation



Presented By: *Dr. Robert Bornhofen, Director of Innovations
DC Water*

3:45 pm

Wrap-up, Open Discussion, and Adjourn



6 Engineering CEC Expected
5.5 Water Operator CPE Expected

The **Drinking Water Quality and Research Committee** is the Virginia Section's technical committee dedicated to drinking water quality and treatment issues. The committee is focused on keeping its members and the Section up-to-date on the latest developments in drinking water research. In addition to a regular series of articles on water quality topics for the Section Magazine, the committee's primary activity is a yearly seminar in which distinguished researchers from around the state and around the nation are invited to speak on topics of current interest to Virginia's drinking water community. For more information, please contact the committee leadership:

Roger Arnold, Chair, rarnold@hazenandsawyer.com
James Linton, Vice-Chair, jlinton@wrallp.com

What were the highlights?

What would YOU do differently?

Please complete this 2 minute survey to help us plan for 2024!

<https://vaawwa.typeform.com/DWQR23>



GET TO KNOW OUR SPEAKERS

Steve Bieber manages COG's water resources programs including the regional Anacostia Restoration Partnership, the Blue Plains Intermunicipal Agreement, water quality programs, water security programs, drought management, long term infrastructure planning, and other environmental programs for local governments and utilities in the Washington, DC area. He has more than 30 years of experience working in the water sector and has been with COG since 2003.

Dr. Robert Bornhofen, Director of Innovation for DC Water, is tasked with formulating and executing a comprehensive strategy across the entire organization. He is currently overseeing the implementation of new processes, tools, and roles designed to ramp up and sustain innovation. Past experience includes support to IBM, Citibank, & Delta Air Lines as well as smaller organizations with similar needs. Robert teaches Innovation Strategy at Cornell University and Organizational Strategy at the University of Maryland as well as facilitating a course on Operations Management & Digital Strategy at Northwestern University.

Roger L. Caslow has worked in the security and privacy fields for over 20 years and has physical, cybersecurity, operational, and insider threat/counterintelligence expertise. As CISO for Hampton Roads Sanitation District (HRSD), Roger is responsible for leading the security strategy and developing solutions for this large regional water and wastewater utility. He is proficient at working with cross-functional teams in developing and building technical, governance, compliance, and risk assessment aspects of information security and privacy disciplines to ensure the successful delivery of programs aligned with business goals and enterprise risk management. His education includes a Post Graduate Certification from the National Intelligence University in Washington, D.C., and a Master's in Applied Economics from the University of Central Florida. He is a Certified Information Systems Security Professional (CISSP) and a proud US Navy veteran.

Jessica Edwards-Brandt is the Director of Water Operations for Loudoun Water. She oversees the Trap Rock Water Treatment Facility operation, the central distribution system operation, and the Cross Connection Inspection team. She has been involved in the drinking water industry for 22 years, working with public utilities and consulting firms. She is active in AWWA and is a trustee of the AWWA Water Quality and Technology Division Committee.

Nicole Fahrenfeld, PhD is an Associate Professor of Civil & Environmental Engineering at Rutgers, The State University of New Jersey. She earned her BS from Johns Hopkins, MS from Clemson, and PhD from Virginia Tech. Recent research in her lab includes projects on microbial source tracking in mixed land use watersheds, peracetic acid disinfection, wastewater epidemiology, and microplastic pollution.

David Jarrell holds a Class 1 Waterworks Operator License and has experience operating groundwater and surface water treatment systems in Virginia. Since graduating from George Mason University with a BS in Public Administration, David has served as Lead Operator at Wilderness WTP, Program Manager for Rapidan Service Authority (RSA), and is now RSA's Director of Operations. He is responsible for overseeing operations of RSA's water and wastewater treatment plants as well as working alongside RSA's staff and consulting engineers to plan and implement system improvements. David is a member of VA AWWA's Plant Operations Committee, VWEA's O&M Committee, and the VWEA/VAAWWA Utility Management Committee.

Rob Mangrum is a consulting engineer with 28 years' experience in the field of municipal water and wastewater treatment in the Southeast. He has been board certified by the American Academy of Environmental Engineers in Water Supply and Wastewater Treatment since 2003. Mr. Mangrum completed his master's degree in Environmental Engineering at Virginia Tech and his undergraduate degree in Civil Engineering at Clemson University.

His potable water design experience utilizing membrane treatment spans 4 decades and has included NF, UF and MF systems for a diverse group of surface and ground water sources.

Michael McKie is a water system engineer with C3 Water in Ontario, Canada. He is currently involved in variety of projects including design and construction, planning, water quality optimization and water system monitoring. Michael received his Ph.D. from the University of Toronto in 2019 where he examined process optimization, specifically focused on biofilter monitoring and characterization. He is an active member of the AWWA biological treatment committee serving as publication chair, the International Ozone Association serving as the ROPES chair and the treatment committee of the Ontario Water Works Association.

Dwayne Roadcap, REHS, LPSS, AOSE, is the Director of the Virginia Department of Health (VDH) Office of Drinking Water. Mr. Roadcap has over 20 years of experience with environmental programs in Virginia, and previously served multiple roles with the Office of Environmental Health Services.

David Tungate is the Director of Operations for the Rivanna Water and Sewer Authority in Charlottesville Virginia. He manages the Authority's water, wastewater, and laboratory departments. Mr. Tungate has been with the Authority for over 10 years. Prior to moving to Charlottesville, Mr. Tungate spent 15 years in working for the municipal water utility in South Bend Indiana. David holds a bachelor's degree from Purdue University and a master's degree from the University of Illinois.

Steve Via is Director of Federal Relations for the American Water Works Association (AWWA) working in AWWA's Washington, D.C. office. Mr. Via's primary responsibilities are two-fold: working with the EPA and other federal agencies on the development of policy and regulations that affect the water sector, and communicating the basis and substance of federal policy and regulations to the water sector.