

# Tri-Con Pre-Conference Workshop

## Climate, Workforce, and Cybersecurity Resiliency for Asset Managers

[TUESDAY 1:00pm – 5:15pm, Room 201-202:](#)

### Presented by the CWEA and CSAWWA Asset Management Committees

Resiliency is the ability to prepare for and adapt to changing conditions and withstand and recover rapidly from disruptions. Resilience includes the ability to withstand and recover from deliberate attacks, accidents, or naturally occurring threats or incidents. The topic of this workshop is to help water and wastewater asset managers use a framework to address resiliency in their asset management planning and implementation efforts.

The workshop will feature presentations from utility leaders on best practices and case studies of three key resiliency topics: **Climate, Workforce, and Cybersecurity**. Resiliency themes will be discussed using the framework of the Water Research Foundation Project #5014, “Practical Framework for Water Infrastructure Resilience.” Speakers will help attendees to identify the current state of their level of resilience, determine the desired future target level of resilience, and a path forward to address the variety of threats from a multi-disciplinary perspective. Attendees will participate in small group activities designed to provide a hands-on experience to apply the WRF framework to level of service and risk management tactics.

1:00-1:10	Intro and Welcome, Ethan Vidal, Xylem
1:10-1:50	WRF Framework for Resiliency, Alana Gildner, Black and Veatch
1:50-2:30	Workforce Resilience, Art Shapiro, Howard County DPW
2:30-2:45	Break
2:45-3:25	Cybersecurity as Utilities Digitize, Jonathon Sprague, HDR
3:25-4:05	Incorporating Climate Change in CIP and AM, Nick Passarelli, DC Water
4:05-4:55	Group Activity
4:55-5:00	Conclusions/Wrap-Up, Ethan Vidal, Xylem

### Presenters:

Speaker – WRF Framework – Alana Gildner

Ms. Alana Gildner is an engineer working in strategic asset management at Black & Veatch. She has developed a variety of skills in the evaluation, design, and delivery of projects involving water and wastewater treatment and conveyance processes. Her work experience focuses on asset management, with emphasis on risk analysis and management, resilience-based planning, risk-based prioritization, condition assessment, and business case analysis. She is an active member of CWEA, previously chairing the YP committee, and contributing to the Asset Management, Biosolids, and YP committees.

Speaker – Workforce Resilience – Art Shapiro, Chief, Howard County Bureau of Utilities

Mr. Shapiro is responsible for all Water and Wastewater operations and maintenance activities for Howard County. Mr. Shapiro has over 40 years of experience including previously serving as Chief of Engineering and Construction for Baltimore DPW. Mr. Shapiro received his Bachelor of Science degree in Mechanical Engineering from Drexel University and Master of Science Degree from Johns Hopkins University. He is a registered professional engineer in Maryland and is a Certified Project Manager. He is a member of AWWA, WEF; the WaterReuse Association; County Engineers Association of Maryland and APWA, and holds multiple United States Patents related to water and wastewater treatment processes. He was elected President of the Maryland Association of Municipal Wastewater Agencies and is currently serving as Maryland State Director of MDWARN.

Speaker – Cybersecurity as Utilities Digitize – Jon Sprague

Mr. Jon Sprague is a Senior Asset Management and Operations Consultant with HDR in Va Beach. Jon is a PE with over 30 years utility leadership experience. Prior to joining HDR, Jon spent 18 years at St. Louis MSD. During his tenure as Director of Operations, he implemented a comprehensive asset management program to assure customer service and environmental concerns were met, while effectively managing costs and efficiencies throughout the entire District. As Director of IT during Jon's last four years with MSD, he led the implementation of integrated, strategic IT plans and policies, including IT asset management, security and resiliency, and business process improvement.

Speaker – Incorporating Climate Change in CIP and AM – Nick Passarelli

Mr. Nick Passarelli currently serves DC Water as Vice President, Wastewater Treatment Operations and has worked in the Environmental Field for over 30 years. He is a licensed Professional Engineer with a BS and MS in Civil/Environmental Engineering from George Washington University. Nick also has a Class IV ABC Wastewater Operator's license. For almost the past 17 years he has worked at DC Water in the Process Engineering/Operations Group and is currently the VP of Wastewater Operations at DC Water's Blue Plains AWTP. Prior to working for DC Water Nick worked in the consult engineering field for AECOM/Metcalf & Eddy as a consulting/design engineer.

Moderator – Ethan Vidal

Mr. Ethan Vidal is the Chair of the Asset Management Committee for CS AWWA, and a Program Manager for Xylem Assessment Services. He is a licensed professional engineer in Maryland with over 10 years of experience, specializing in leading linear asset condition assessment projects. He has a Bachelor's degree in Psychology from Amherst College and earned a second Bachelor's, in Civil Engineering, from the University of North Dakota in 2020.