

Chesapeake WEA/CSAWWA Asset Management Committee Webinar

Resilience Through Integration | December 4, 2025 - Noon to 1:30pm

Webinar Abstract – Discover how leading public agencies and experts are advancing resilience and sustainability through integrated asset management and digital transformation. This webinar highlights Howard County’s foundational journey toward connecting people, processes, and technology to build long-term infrastructure resilience, alongside a case study delivered by GHD showcasing the City of Fort Myers, Florida. Learn how Fort Myers is applying AI-enabled predictive modeling and capital planning tools within an integrated data platform to support dynamic decision-making, prioritize investments and manage risk.

Speaker Bio for Presentation #1: Craig Daly, PE

Mr. Daily is the Deputy Chief, Engineering and Asset Management – Howard County Government

Craig Daly is an engineering and analytics leader with over twenty years of experience spanning government, private industry, and entrepreneurship in water infrastructure, asset management, and applied data science. As Deputy Chief of Engineering and Asset Management for Howard County Government, he leads efforts to integrate Asset Management and Asset Performance & Reliability Management (APRM) principles into county-wide planning, operations, and capital investment strategies. His work emphasizes resilience through integration: aligning people, process, and technology to deliver sustained value and service reliability.

Prior to joining Howard County, Craig held leadership roles at Xylem Inc., where he developed one of the industry’s first machine learning-based water main break prediction models, and at the City of Baltimore, where he directed large-scale municipal water operations and reliability programs.

He has co-authored multiple peer-reviewed publications on water infrastructure and data-driven decision-making, reflecting his career-long commitment to advancing resilient, evidence-based public sector innovation. Craig holds a B.S. in Forest Engineering from the University of New Brunswick, and two master’s degrees from Johns Hopkins University in Environmental Engineering and Applied Spatial Analysis for Public Health, along with a Certificate in Applied Generative AI from Johns Hopkins University.

Presentation #1 Abstract: “*Resilience Through Integration: Building the Foundation*”

Resilience in public infrastructure is not achieved overnight, it is built, deliberately and collectively, by integrating people, processes, and technology around a shared purpose. Howard County Department of Public Works (DPW) is at the early stage of a long-term transformation toward *Integrated Asset Management*, one that strengthens everyday reliability while laying the foundation for true resilience. Guided by principles of Asset Performance and Reliability Management (APRM), the program seeks to connect operations, engineering, finance, and IT through clear governance, practical tools, and a focus on building internal capability before technology expansion. This presentation will share how Howard County is developing its integrated framework, from defining “why now,” to piloting cross-bureau collaboration, to embedding early wins that build confidence and capacity. While still in its infancy, the

County's journey reflects a growing commitment to resilience not as a static end state, but as a continuous practice of learning, adaptation, and alignment.

Speaker #2 Bio for Presentation #2: Pradeep Nagarajan

Pradeep Nagarajan is Technical Director at GHD and has over 20 years of experience specializing in the field of water resources, stormwater, water and wastewater master planning, modeling, and design projects. He has a strong background and extensive experience in utility planning and modeling, surface/ground water hydrology, hydraulics, flood analysis, and stormwater management. Pradeep also serves as a Digital Leader for clients by providing service offerings through real time data integration and cloud-based computing, advanced data analytics, digital planning, spatial visualization of data using dashboards and web-based systems, AI/ML applications on utility networks/systems for efficient decision making, and predictive modeling.

Speaker #3 Bio for Presentation #2: Bhavin Bhayani

Bhavin Bhayani is Data Analytics Lead at GHD and has over a decade of experience driving digital transformation and advanced analytics initiatives for water, wastewater and stormwater utilities. He specializes in developing digital frameworks/architecture and help scale cloud-native AI/ML platforms that integrate complex, multi-source data environments.

Bhavin's expertise spans predictive risk modeling, regulatory compliance analytics, and financial decision-support tools tailored for capital planning, modeling and asset prioritization. His approach bridges engineering principles with modern data science, enabling utilities of all sizes to accelerate insight generation, enhance operational resilience, and make data-driven investment decisions.

Presentation #2 Abstract:

"Foster a resilient and sustainable future – Fort Myers Case Study"

This session will showcase how engineering, asset management, and digital are reshaping the future of water utilities. We will demonstrate how generative AI, predictive modeling, and capital planning tools enable utilities to prioritize investments, manage risk, and respond to regulatory requirements dynamically. This session presents a case study from Fort Myers, Florida, where GHD developed a cloud-based decision support system designed for short, and long-term planning for future growth, and utility management. Through this case-study, participants will see how integrated data platforms deliver actionable insights that drive resilience and provide sustainable future for utilities.