NYWEA's 98th Annual Meeting

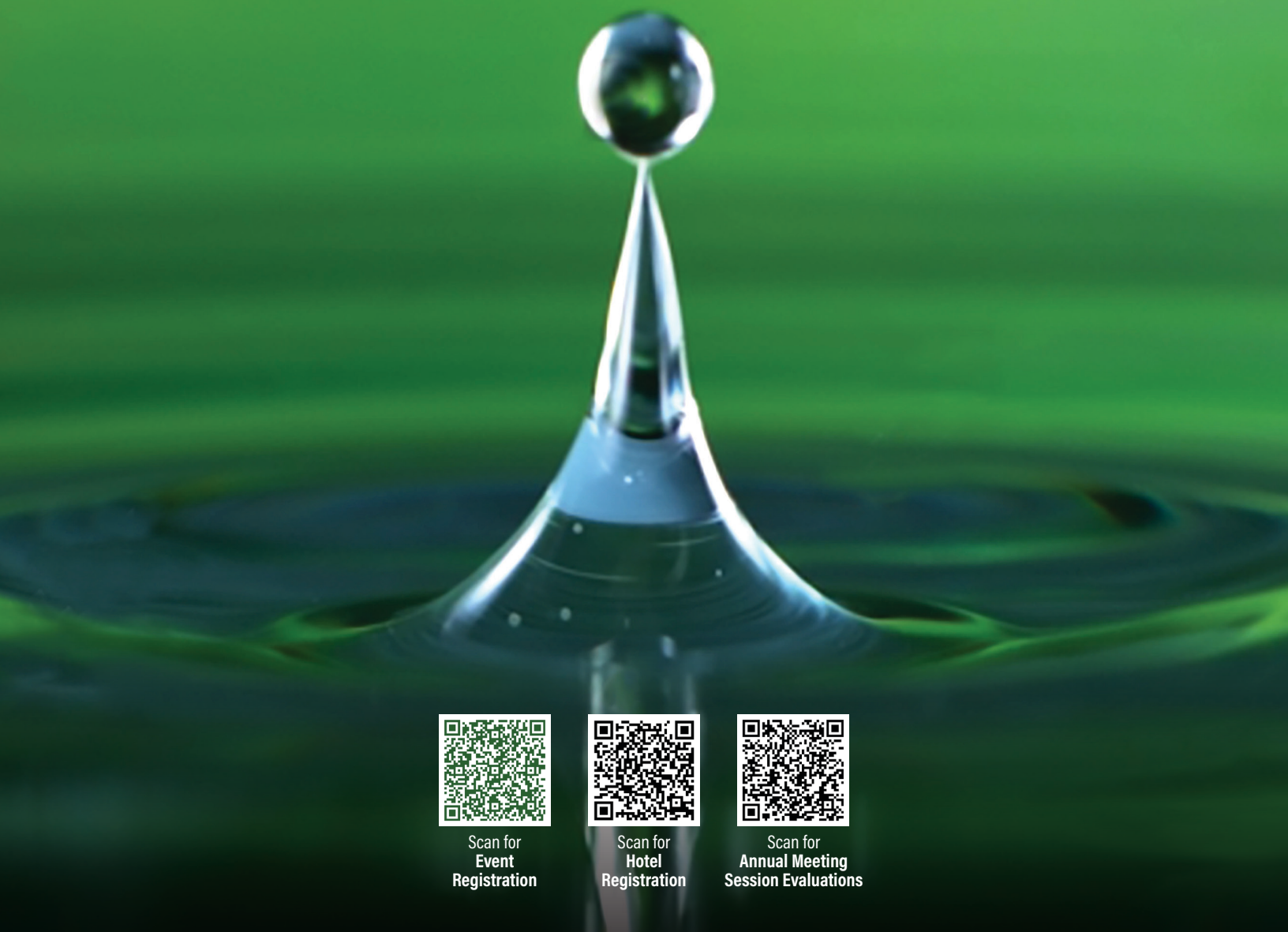
NYC Marriott Marquis, February 2-4, 2026

NY State's Largest Water Quality Conference

NYWEA™
LEADING THE WAY IN
WATER QUALITY MANAGEMENT

THE RIPPLE EFFECT:

Sharing the Value of NYWEA and Engaging the Next Generation of Water Professionals



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Scan for **Annual Meeting Session Evaluations**

NYWEA 98th Annual Meeting
February 2-4, 2026
MONDAY, FEBRUARY 2, 2026

Opening Session
Monday, February 2, 2026

8:30 Welcome! Coffee and Breakfast Sandwiches

8:45 Dan Rourke, President NYWEA

9:00 Rohit T. Aggarwala, Commissioner, NYC Department of Environmental Protection (Invited)

9:30 InFlow Recipients

9:40 Recognition of Lucy Grassano awardees

9:50 Membership Interludes

10:15 Mentimeter Experience

10:30 Adjourn

10:45 Exhibit hall ribbon cutting

Session 1: Involving the Community in your Capital Projects

Water: 1.0 ATC **Wastewater: 0.5 RTC*** **Engineer: 1 PDH**

11:00am: BSA Queen City Clean Waters: Leveraging Infrastructure Projects into Community Investment*

This presentation will provide updates on how Buffalo Sewer Authority approached establishing a community-centered capital projects program management system to implement the Queen City Clean Waters initiative and integrate into it the necessary capital work already required to operate and maintain one of the largest and oldest treatment facilities and sewer systems in New York. This presentation will outline methodologies to implementing community benefits framework into a consent decree driven capital projects program through local stakeholder partnerships, communications and earned media plan, aspirational small business utilization goals, and a data-driven equitable community engagement plan.

Walt Walker, *TYLin* **walt.walker@tylin.com**

Rosaleen Nogle, *Buffalo Sewer Authority* **rnogle@buffalosewer.org**

11:30am: Reimagining Dugway Brook through Community-Driven Solutions

The Dugway Brook stream restoration project provides a model for how community engagement can drive the successful planning and implementation of resilient and equitable stormwater solutions. This study attempted to identify technically feasible stormwater solutions in Glenview Park, that reflected the voices of the community. This approach to infrastructure design creates more resilient and equitable communities, where access to quality infrastructure is prioritized and community identity is reflected. This presentation will provide valuable insight and best practices for the water industry, highlighting the importance of inclusive and sustainable infrastructure development that creates a future of equitable communities.

AJ Gutz, *Wade Trim* **agutz@wadetrim.com**

Session 2: Small Systems, Big Impact

Water: 0.5 ATC* Wastewater: 1 RTC Engineer: 1 PDH

11:00am: Cybersecurity in Small & Rural Water Systems*

This presentation will provide insights from an industry, government, and utility perspective to explore the current and future landscape of digital security for cybersecurity in small and rural water and wastewater systems. We will examine specific challenges, opportunities, and case studies to define a vision for the future of this area of work. We will discuss the perspectives of the role of cybersecurity and examine the current landscape to understand how their efforts contribute. Also discussed will be the limitations, risks, and barriers currently limiting the potential impact of cybersecurity for water and wastewater systems, and how this looks different, specifically for small and rural systems. The future of cybersecurity will be discussed, exploring what a successful scaled implementation of this technology could enable. Also, what are the negative outcomes that could materialize if risks are not adequately addressed?

Abhishek Sharda, *Brown and Caldwell* **asharda@brwncald.com**

11:30am: Honeoye Lake WWTP Upgrade

The Honeoye Lake WWTP was recently upgraded to meet a compliance schedule for the elimination of overflows and revised SPDES permit limits for ammonia removal and effluent disinfection. The $9.7M capital project that was completed in 2024 provided necessary improvements to enable the 0.5 mgd plant to accommodate up to 3.0 mgd of sanitary sewer flow.

Ariel Judd, *GHD* **ariel.judd@ghd.com**

Steven May, *Ontario County DPW* **Steven.May@ontariocountyny.gov**

Session 3: Design Build 1

Water: 0.5 ATC* Wastewater: 1 RTC Engineer: 1 PDH

11:00am: Evaluation and Application of Plant Wide Rehabilitation Efforts: A Case Study of Available Capital vs Process Demands*

Utilities often face an imbalance between available funding and the scope of required construction or maintenance work. This financial disparity forces utilities to prioritize projects selectively, often deferring necessary work until additional funding becomes available. To address this challenge, a structured approach to evaluating and prioritizing construction alternatives is essential. This presentation explores the development and application of evaluation criteria designed to support informed decision-making in constrained financial environments. The City of Oneonta Wastewater Treatment Plant is used to illustrate how these criteria were implemented to guide project prioritization and ensure the most critical needs were addressed first.

Harry Weaver, *Wendell Companies*, **zweaver@wendelcompanies.com**

11:30am: Startin up - Are we ready yet? A story of start-up challenges of three centrifuge dewatering facilities in the US.

The presentation will focus on the design process and subsequently the startup and commissioning of three large centrifuge dewatering facilities in the US. The presentation will identify key metrics that were established and the approach to meet the metrics. The presentation will also focus on the challenges associated with the performance testing of new facilities

Rudy Killian, *Carollo Engineers,* **rkilian@carollo.com**

Session 4: WPCF Innovation - Chemistry Considerations

Water: 0.0 ATC **Wastewater: 1 RTC** **Engineer: 1 PDH**

11:00am: Biological Phosphorus Removal Intensification and Optimization

Water Resource Recovery Facilities (WRRFs) are facing growing pressure to reduce total phosphorus (TP) in effluent, often below 0.5 mg/L. Traditional biological phosphorus removal (BPR) is limited by low VFAs, solids loading, and oxygen intrusion, increasing chemical costs. Recent strategies like return activated sludge (RAS) fermentation and RAS denitrification enhance BPR by generating VFAs and supporting PAOs. Facilities in the Mid-Atlantic have achieved low nutrient levels with reduced chemical input. This presentation will highlight case studies from the Carolinas and Virginia, showcasing configurations, performance data, and cost-effective operational improvements to optimize BPR in existing WRRFs.

Kamruzzaman Khan, *Hazen and Sawyer,* **kkhan@hazenandsawyer.com**

11:30am: Froth Control at BNR facilities using Polymer systems

Froth formation is a persistent operational challenge in wastewater treatment plants worldwide, often driven by the proliferation of filamentous bacteria. Various mitigation strategies, such as dissolved oxygen (DO) control, chlorination, and polymer addition, have been employed to address this issue. This study examines the design, operational performance, and optimization of Froth Control Systems implemented at NYCDEP facilities. Through case studies conducted at DEP, we highlight the comparative cost implications of chlorination versus polymer-based approaches, offering insights into effective froth management strategies.

Giacomo de Falco, *NYC DEP,* **gdefalco@dep.nyc.gov**

Session 5: Reclaiming & Re-Use of Wastewater

Water: 0.0 ATC **Wastewater: 1 RTC** **Engineer: 1 PDH**

11:00am: Case Study: Minimizing Data Center Freshwater Footprint with an Industrial Wastewater Reclaim System

The average data center uses around one million gallons of water per day to remove heat from the data center, and this will only increase with higher computing density and square footage. Approximately 20 percent of the data centers in the US are located in water-stressed regions. Wastewater reclaim will become essential to building data center resilience and will minimize potable freshwater use. This paper will explain a novel approach to minimize the freshwater footprint of a data center in the US by recycling 90 percent of its industrial wastewater using an advanced water treatment (AWT) reclaim system.

John Rydzewski, *Carollo Engineers,* **jrydzewski@carollo.com**

11:30am: Expanding Wastewater Reuse: Challenges and Innovations in Reverse Osmosis Concentrate Management

Wastewater reuse is an increasingly attractive pathway to expand water supplies and improve resilience to water stress. Reverse osmosis (RO) is often used to produce high-quality water but generates a waste stream that is difficult and costly to manage. Technologies that can minimize RO concentrate (ROC) volume for disposal while simultaneously producing reusable water are needed. This presentation examines drivers for RO treatment trains, characteristics of ROC, and emerging technologies for ROC treatment. As ROC varies widely in composition, effective brine management will rely on an array of technologies tailored to different challenges.

Kinnari Shah, *Hazen and Sawyer,* **kshah@hazenandsawyer.com**

Session 6: Pump It! Force Mains and Pump Stations

Water: 0.0 ATC Wastewater: 2 RTC Engineer: 2 PDH

1:30pm: How Can System Owners Cost-effectively Evaluate the Condition of Force Mains and Siphons?

Force mains and siphons are critical components of most sanitary sewer and combined sewer systems. They are some of the least cleaned, maintained, inspected, assessed and understood assets of sewer systems. Why? Most force mains and siphons were not constructed with maintenance or inspection in mind. Inspecting force mains and siphons seems like an insurmountable challenge. So how do you clean and inspect force mains and siphons? This presentation will provide a good number of case studies for pipelines ranging between 8" and 96" diameter. The wide variety of technologies used and the results from the efforts will be described.

Gary Skipper, *Brown and Caldwell,* **gskipper@brwncald.com**

2:00pm: Sleep sound knowing what's in the ground: Inspecting Force Mains

Portland Water District's (PWD) India Street wastewater force main-a 7,000-foot, 33-inch prestressed concrete cylinder pipe installed in 1976-was identified as the asset with the highest consequence of failure. To assess its condition, PWD partnered with Insight and HDR to deploy Insight's free-swimming XK1 inspection tool, which integrates electromagnetic, acoustic, and sonar technologies to detect wire breaks, leaks, debris, and gas pockets. Engineering efforts centered on custom launch and extraction designs and maintaining operational continuity. The presentation will summarize available inspection technologies, detail inspection methodology and execution, share results and recommendations for rehabilitation.

Rebecca Elwood, *HDR,* **rebecca.elwood@hdrinc.com**

Mike Higgins, *HDR,* **mike.higgins@hdrinc.com**

3:30pm: Deep Tunnel Pump Stations - Understanding the Key Attributes Which Will Result in a Successful Project

This presentation will discuss proper design approaches and lessons learned in the application of these unique pump stations, based on the presenter's experience with over half-a-dozen such facilities across the eastern half of the United States. One focus will be on proper pump selection, given the unique operating conditions these units may face, ranging from tunnel near empty to tunnel full. This presentation will also compare the advantages and disadvantages of various configurations (submersible, dry/wet pit and cavern style), including a focus on operations and maintenance, and lessons learned. A case study will also be presented.

Rich Atoulikian, *HDR,* **Rich.Atoulikian@hdrinc.com**

4:00pm: A Makeover to Onondaga County's Davis Road Pump Station

In preparation for a major industrial manufacturing plant, the Davis Road Pump Station required rehabilitation of several assets as well as operational improvements and flexibility. EDR evaluated, designed, permitted, and administered the construction of the rehabilitation of a pump station for the Onondaga County Department Water Environment Protection, which was completed in Spring 2025. A detailed hydraulic evaluation was performed to assess the improvements necessary to create two, fully independent pipelines and develop operational scenarios for each system.

Charles Prior, *EDR,* **rebecca.elwood@hdrinc.com**

Session 7: Cybersecurity - Protecting Our Water Assets from Invisible Threats

Water: 1.5 ATC* **Wastewater: 2 RTC** **Engineer: 2 PDH**

1:30pm: The Fundamental Role of Asset Management in Cybersecurity Regulatory Compliance*

The water sector in New York state faces potential regulations mandating certain requirements regarding cybersecurity. This presentation will identify the benefits of a good asset management system and how it forms the foundation for meeting or supporting the vast majority of cybersecurity controls (countermeasures) in the EPA's Water Cybersecurity Assessment Tool (WCAT). This presentation will also discuss how a concerted effort based on the WCAT could be used to help meet both pending NY State and existing US Federal regulations (i.e. America's Water Infrastructure Act).

Jim Schultz, *Black & Veatch,* **schultzj@bv.com**

2:00pm: Future-Proofing New York's Wastewater Systems: Cybersecurity and Emergency Response Planning

In 2022, the NYSDEC and NYSEFC launched the State Asset Management Program (AMP) to improve wastewater system asset management. In 2025, the program expanded to include cybersecurity and emergency response planning, focusing on the development of cyber inventories and emergency response plans. These efforts address vulnerabilities, raise awareness of risks, and update existing guidance. This presentation outlines progress, challenges, successes, and future goals for enhancing cybersecurity and emergency preparedness in wastewater system management.

Zeeshan Amin, *Arcadis,* **zeeshan.amin@arcadis.com**

Samantha McCart, *NYS DEC,* **Samantha.McCart@dec.ny.gov**

(1HR) 3:30pm: Chat with the Champions: A Roundtable Discussion with Asset Management Team Members in Publicly Owned Treatment Works*

Aging infrastructure, budget constraints, and evolving regulations place increasing pressure on Publicly Owned Treatment Works (POTWs). This panel brings together utility managers, operators, Engineers, non-profit utility partners, and regulatory experts to discuss key elements such as inventory and condition assessment, risk-based prioritization, lifecycle cost analysis, digital technologies, cybersecurity, and capital improvement planning. The first 25 minutes will be dedicated to each panelist providing practical case studies highlighting lessons learned, common pitfalls, and strategies for building organizational buy-in. The remaining duration of the panel session will be a round table discussion with the panelists.

Danyel King, *NYS DEC,* **danyel.king@dec.ny.gov**

Lauren Livermore, *GHD,* **lauren.livermore@ghd.com**

Ted Nitza, *Kimley-Horn,* T**ed.Nitza@kimley-horn.com**

Session 8: Stormwater Management & Green Infrastructure

Water: 0.0 ATC **Wastewater: 0 RTC** **Engineer: 2 PDH**

1:30pm: Utilizing Real-Time Controls Systems to Enhance the Benefits of Small-Scale Green Infrastructure Systems

This presentation highlights the importance of small-scale green infrastructure in building resilience in existing infrastructure through incremental improvements. It proposes three green infrastructure options that can enhance flood and CSO mitigation and facilitate implementation at scale to achieve wider and multiple benefits. This presentation also assesses the combination of these green infrastructure options with real-time control systems to improve flood and CSO mitigation downstream undertaking an analysis with historical rainfall data known to have caused flooding. Evaluation and modeling results are used to depict potential improvements to commonly used green infrastructure systems.

Kathryn DePippo, *Mott MacDonald,* **kathryn.depippo@mottmac.com**

2:00pm: Rain-on-Grid Case Studies: Improving Stormwater Quantification

Rain-on-grid modeling has revolutionized stormwater analysis by enabling detailed, high-dimensional simulations and reducing manual work compared to traditional methods. In projects for cities like New Rochelle, these models streamline subbasin delineation and produce reliable flood predictions. Integrated Building Information Modeling (BIM) tools, such as ICM with Autodesk, allow for dynamic updates without manual changes. In coastal areas like New York City, combining rain-on-grid with 2D modeling accurately captures complex flood scenarios, especially when storm surge and heavy rainfall interact.

Jillian Whitling, *WSP,* **jillian.whiting@wsp.com**

3:30pm: Using a Pay-for-Performance Model to Deliver Green Infrastructure in New York City

More than half of the impervious area across NYC is located on privately held properties, but implementing green infrastructure on private properties presents numerous challenges. Many GI programs have been hampered by high costs and long delivery times, while in other cases, publicly funded GI programs have been unable to address stormwater management outside of the public realm, limiting their overall effectiveness and reach. To address this, NYC Department of Environmental Protection launched the Resilient NYC Partners Program in partnership with Arcadis, leveraging a unique pay-for-performance model to fund the installation of GI retrofits on private properties in NYC.

Alisen Downey, *NYS DEP,* **adowney@dep.nyc.gov**

Michael Escobar, *Arcadis,* **Michael.Escobar@arcadis.com**

4:00pm: Central Jefferson: Rethinking Alley Networks for Stormwater Capture

The Central Jefferson Green Alley project in Los Angeles transforms urban alleys within the Compton Creek sub watershed into functional green infrastructure. Historically polluted, these alleys now feature repaving, parkway swales, planters, and stormwater capture systems to reduce pollutants like zinc and E. coli, improve infiltration, and enhance urban aesthetics. Early data show significant pollutant reductions and effective stormwater management. Despite challenges with long-term maintenance and sensor issues, the project demonstrates a scalable model for integrating green infrastructure into dense urban areas, delivering environmental, social, and educational benefits to disadvantaged communities.

Jason Fussel, *Tetra Tech,* **jason.fussel@tetratech.com**

Session 9: Residuals & Biosolids- Planning and Regulatory Framework

Water: 0.0 ATC **Wastewater: 2 RTC** **Engineer: 2 PDH**

1:30pm: Beyond Lime: Biosolids Master Planning at the Intersection of Cost, Energy, and PFAS

In response to growing concerns over PFAS and the goal of achieving Class A biosolids per Part 503 Rule, WRRFs across the U.S. are rethinking their biosolids treatment strategies. This study highlights a biosolids master plan and a techno-economic assessment conducted for a Mid-Atlantic utility's 32 MGD WRRF, evaluating alternatives to its existing lime stabilization process. The study aimed to identify a treatment pathway aligned with the utility's long-term economic, operational, environmental, and social goals. Emphasis was placed on circular economy principles, particularly the valorization of byproducts and end-products to enhance resource recovery.

Aykut Sayin, *CDM Smith,* **sayina@cdmsmith.com**

2:00pm: Managing Residuals and Biosolids in a time of Uncertainty

In New York and New England States water quality professionals are facing calls for bans or moratoriums of beneficial biosolids use. Sensationalized news stories accuse biosolids of harming animals and humans while erasing property values. This presentation will provide an overview of the benefits of biosolids use, the efforts taken to date to support beneficial use and how agencies and professionals can and need to become engaged. The Presentation will provide a brief history of public outreach efforts by WEF, agency groups and biosolids organizations along with the steps being taken to benefit from the use of social media.

Mark Lang, *Black & Veatch,* **langm@bv.com**

3:30pm: 40 CFR Part 503: Reminding Utilities of all the Alternatives and Options for Beneficial Use

Biosolids beneficial use regulations in the US are more than 30 years old found in the Code of Federal Regulations Title 40, Part 503 (40 CFR Part 503). On a high level, it is well understood that biosolids quality standards are measured by three parameters: pollutants (regulated metals), pathogen reduction (PR), and vector attraction reduction (VAR). However, the application of these standards continues to be misunderstood. This paper will go over the fundamental requirements of 40 CFR Part 503, reminding participants of nuances of this regulatory framework and example biosolids programs impacted by overlooked aspects of these foundational regulations.

Lisa Challenger, *Material Matters, Inc.,* **lchallenger@materialmatters.com**

4:00pm: What State Biosolids Studies Tell Us About Managing Biosolids in NY

Biosolids management in New York is increasingly challenging. Concerns about PFAS have exacerbated an already difficult environment. Limited land is available for land application; landfill space is dwindling and there is little appetite for new incineration facilities. Capacity at existing management outlets for biosolids is limited and decreasing. This presentation will summarize the findings of state biosolids studies in Vermont, Massachusetts and Maine, with a focus on takeaways for POTWs in New York. The biosolids regulator for Vermont will co-present and provide a regulator's perspective on the current sludge management landscape in the region.

Bill Brower, *Brown and Caldwell,* **bbrower@brwncald.com**

Eamon Twohig, *Vermont DEC,* **Eamon.Twohig@vermont.gov**

Session 10: PFAS – Concerns and Next Steps 1

Water: 1.0 ATC* **Wastewater: 2 RTC** **Engineer: 2 PDH**

1:30pm: PFAS-t and Curious: The Race to Destroy What Treatment Leaves Behind*

EPA's updated PFAS MCLs is creating an influx of residuals-management needs and destruction technologies. Updates to CERCLA/RCRA hazardous designations for PFAS will change outlooks for residuals handling, disposal, cost, and liability. This presentation will summarize latest regulations, disposal options, PFAS destruction technologies, and results of a utility survey for PFAS waste-management strategies.

Liz Garvey, *Stantec,* **liz.Garvey@stantec.com**

2:00pm: Impact of Several Stabilization Technologies on PFAS in Biosolids

Jacobs tested several biosolids products (dried, pyrolyzed, and composted) to assess PFAS concentrations. Samples of input and output solids and finished products were analyzed for 24 PFAS compounds. Data will be presented on eight dried biosolids facilities, two pyrolyzed dried products, and six compost products. PFAS precursor analyte presence and concentrations in the input solids as well as the resultant biosolids products will be presented. This information will be useful for agencies considering methods to reduce or eliminate PFAS in wastewater solids to achieve the lowest feasible PFAS concentrations in end products.

Todd Williams, *Jacobs,* **todd.williams3@jacobs.com**

3:30pm: Machine Learning Design Tools for Advanced Treatment

The performance of treatment processes used in reuse and PFAS treatment are challenging to predict because of variations in effluent water quality from site to site. Improved modeling based on water quality alone could (1) provide better cost estimates much earlier in the project life cycle and (2) inform the pilot experimental design. This presentation describes the use of machine learning (ML) tools to predict the removal of key contaminants based on effluent quality and design or operational parameters. In a case study, biofiltration and GAC ML models were used in tandem to cost estimate carbon-based advanced treatment trains.

Kyle Thompson, *Carollo Engineers,* **kthompson@carollo.com**

4:00pm: Centralized GAC Reactivation: Opportunities for Municipal Utilities in PFAS Management*

With new federal PFAS regulations, utilities are turning to granular activated carbon (GAC) and ion exchange as leading treatment options. GAC is unique in that it can be reactivated and reused, lowering costs (40-60% of virgin media) and reducing PFAS disposal. Demand is projected to reach 80,000 tons annually, yet vendor capacity is constrained. Municipal facilities in Cincinnati and Phoenix show the feasibility and value of ownership. A Black & Veatch study found centralized reactivation about 30% cheaper than turnkey services. This presentation examines costs, operations, NSF certification, and tradeoffs among vendor reliance, municipal facilities, and virgin media.

Amanda Canida, *Black & Veatch* **CanidaA@bv.com**

Joe Stromwall, *Black & Veatch* **StromwallJR@bv.com**

Mansi Master, *Passaic Valley Water Commission,* **mmaster@pvwc.com**

Bruce Whitteberry, *Greater Cincinnati Water Works,* **Bruce.Whitteberry@gcww.cincinnati-oh.gov**

Session 11: Energy Conservation & Generation 1

Water: 0.5 ATC* Wastewater: 2 RTC Engineer: 2 PDH

1:30pm: Generating Harmonics: A Review on the Impact of VFDs on Generator Sizing and System Efficiency*

Current plant design frequently includes VFDs on motor loads to allow for operational flexibility, as well as potential energy cost savings. This solution can be necessary and beneficial but may cause electrical issues due to harmonics if not addressed properly in design. VFDs introduction of harmonics can cause generator oversizing, or designers may also utilize harmonic mitigation equipment. The presentation will discuss the motor starting technologies their effects on generator systems, and mitigation strategies.

Robert Dickman, *STV Inc.* **robert.dickman@stvinc.com**

2:00pm: Drawing the Line: Demarcation Issues Related to Utilizing Sewage Thermal Energy

Facilities and utility organizations are pursuing increased electrification and energy efficiency using sewage thermal energy use (STEU) approaches. These efforts reduce reliance on fossil fuels while reducing operational costs. Water-to-water based systems, as found in STEU, can provide additional methods for consideration and greater overall electrification results. Sites eligible for retrofit generally must have proximity to the sewers and a willingness from the sewer utility to connect. This presentation will explore the current understanding of where the demarcation between the sewer utility responsibility ends and where the customer begins. NYSERDA is funding innovative studies regarding this topic.

Ted Nitza, *Kimley-Horn* **ted.nitza@kimley-horn.com**

Paul Kohl, *Kohl Energy Recycling, LLC* **pKohl@KohlEnergyRecycling.com**

Robert Zarnestke, *STEN rzarnetske@windhamct.gov*

Henry Hamill, *Kimley-Horn* **Henry.Hamill@kimley-horn.com**

3:30pm: Large Aeration Blower Replacement at Toronto's Humber Treatment Plant

The City of Toronto is replacing its 13,000 HP (10 MW) aeration blower system at the Humber Treatment Plant from 50-year-old multi-stage centrifugal blowers to modern dual-core magnetic bearing turbo blowers supporting improved reliability and reduced lifecycle costs. This important asset management project included comprehensive blower technology validation, electrical distribution strategy, dynamic process modeling supporting energy analysis and preselection guaranteed performance test conditions. The construction strategy includes a temporary blower system to allow taking blowers buildings out of service one at a time to reduce contractor risk premiums and accelerate schedule especially for system commissioning.

Jeremy Kraemer, *GHD* **jeremy.kraemer@ghd.com**

4:00pm: Deadly Digesters & Bad Biogas - Safety from Hard Lessons-Learned

Anaerobic digesters have been used extensively at WRRFs around the world and are fortunately increasing in popularity as biogas serves as a viable and valuable source of renewable natural gas. Unfortunately, things can go wrong. Since explosive gas, pressure, and personnel all may be involved, the results can be destructive and extremely tragic. Safely operated and designed digesters and biogas systems protect valuable equipment and personnel working around these processes. Though difficult to discuss, it is important to understand the various problems and root causes to prevent recurrence and to make operations safer for people...and the infrastructure.

Matthew Williams, *Thermal Process Systems* **mwilliams@thermalprocess.com**

TUESDAY, FEBRUARY 3, 2026

Session 12: Young Professionals Working in Teams and Making Teams Work

Time: 9:00 AM – 11:00 AM

Speaker: Jean Malafronte, PE, Principal, ANDRIS Consulting LLC

Success in our industry isn't just about technical expertise; it's about how we collaborate. Join us for an immersive, two-part session designed to master the art of team dynamics and high-pressure problem solving.

To kick off, Jean Malafronte will lead an interactive deep dive into team power dynamics and communication. We will explore the tangible impact of organizational culture, highlighting how effective collaboration drives success (and how a lack of it can hinder it).

Young Professionals will enjoy a dedicated networking coffee break from 9:45 AM – 10:00 AM, right outside the session room. Complimentary professional headshots will also be available for YPs in the session area during the break and immediately following the session.

From 10:00 AM – 10:50 AM, attendees will put their skills to the test in small groups to tackle a real-world scenario: identifying cybersecurity vulnerabilities at a wastewater treatment plant. Using USEPA templates, your team must collaborate under pressure to find solutions and present your findings.

We will wrap up by correlating our practical findings to the morning leadership lessons, leaving you with a toolkit for driving change at your own organization. The session concludes in time for all attendees to join Session 12.

Session 13: Operator's Forum

For hour 1: 9:00 am-10:00 am

Title: From Technical Mastery to Human Connection: Elevating Impact Through Core Competencies

Panel Facilitator: Scottie Donovan, TY Lin scottie.donovan@tylin.com

In an era where operational success depends as much on collaboration as calculation, this panel explores how mastering "power skills" — communication, adaptability, emotional intelligence, teamwork, and strategic influence — transforms not just careers but project outcomes. Attendees will hear from professionals across the water industry, from operators to designers, who will share real-world stories illustrating how these skills have helped them navigate challenges, inspire teams, and drive measurable results.

Through this interactive session, participants will:

- **Discover** how core competencies like communication and strategic influence shape trust, safety, and efficiency in complex projects.
- **Learn** practical methods for improving collaboration and leading across technical and organizational boundaries.
- **Gain** tools to apply emotional intelligence in motivating teams and managing change with confidence.
- **Leave with** actionable strategies and a personal framework for integrating these competencies into daily practice to enhance professional effectiveness, resilience, and leadership presence.

Whether you lead projects, operate facilities, or support design and construction teams, you'll walk away with practical insights to strengthen both your technical delivery and your human impact.

Panelist: TBA

10:00 am-11:00 am: Forthcoming

Session 14: Utility Management

Water: 1.0 ATC* **Wastewater: 1 RTC#** **Engineer: 1 PDH**

9:00am: In the Age of 'Be Ready for Anything, Anytime'*

Water leaders will highlight lessons learned from leading transformative change, practicing adaptive management strategies, and forming partnerships, while remaining personally resilient in times of unprecedented disruption. There is no shortage of technical, social, and financial challenges shaping how communities must be ready for anything, anytime. Wherever you are on your leadership journey, join us to learn, share, and find inspiration from personal stories and authentic insights from public agency and private sector water leaders.

Rick Warner, *Jacobs* **Rick.warner@jacobs.com**

Victor Sarmiento, *Jacobs* **Victor.Sarmiento@jacobs.com**

Shannon Spurlock, *Pacific* **Institute shannon@shannonspurlock.com**

Angela Licata, *NYC DEP* **angelal@dep.nyc.gov**

9:30am: Utility Regionalization: Unlocking Benefits, Navigating Pitfalls, and Building Resilient Partnerships*

Across the U.S., many small and mid-sized utilities face aging infrastructure, regulatory pressures, affordability challenges, and climate impacts. Regionalization and consolidation can provide safer, more reliable, and affordable services by pooling resources, but success requires careful planning to avoid governance, equity, and affordability pitfalls. This session will explore lessons from the City of Waukesha's Great Lakes Water Supply Project with Milwaukee and California's community-driven consolidations. Attendees will gain practical strategies for structuring governance, leveraging funding tools, engaging communities through "Step Zero," and using feasibility analyses to guide decisions and build resilience in their own regions.

Jennifer Owens, *TYLin* **jennifer.owens@tylin.com@tylin.com**

Magdalena Gasior, *TYLin* **magdalena.gasior@tylin.com**

11:00am: Staring into the Abyss: Using Remote Operated Submarines to Safely Inspect Underwater Infrastructure#

DC Water Blue Plains Advanced Wastewater Treatment Facility's Filtration and Disinfection Facility (FADF), was faced with the complex challenge of assessing its underwater substructure including conduits and tanks with significant debris accumulation and non-sealing butterfly valves, hindering necessary repairs and cleaning. To overcome the difficulty of shutting down the facility, a Remotely Operated Vehicle (ROV) was deployed for inspection, which successfully surveyed the substructure and valves without interrupting operations. This innovative approach proved a cost effective and safe alternative, yielding crucial visual evidence of the facility's condition and providing vital data for strategic cleaning and repair efforts.

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

11:30am: Data Based Headworks Design - The Value of Field Test Data for Screening Equipment Design#

In support of the upgrade and replacement of existing coarse and fine mechanical screens at a large wastewater treatment facility treating a combined sewer system, field data was collected to analyze the solids capture effectiveness of various screen size and type combinations. This presentation shows the value in collection of screen performance field data to better inform screen facility equipment upgrade decisions. Maximum capture with minimum headloss was a design goal to drive positive impacts in the downstream operation at the plant.

Tim Matheis, *Hydro-Dyne Engineering* **timothy.matheis@hydro-dyne.com**

Paul Ravelli, *Hydro-Dyne Engineering* **paul.ravelli@hydro-dyne.com**

Session 15: PFAS – Concerns and Next Steps 2

Water: 0.5 ATC* **Wastewater: 2 RTC** **Engineer: 2 PDH**

9:00am: Application of Passive Sampling for Time-Integrated Measurement of PFAS in Environmental Waters Using PassiveX Sampler*

Per- and polyfluoroalkyl substances (PFAS) are persistent contaminants frequently detected in environmental waters. Traditional discrete sampling methods may underrepresent temporal variability and require high sample volumes and handling efforts. Passive sampling offers a time-integrated, low-maintenance alternative. This work evaluates the PassiveX TM sampler, a small integrative device containing organosilica sorbent enclosed in open mesh, for quantifying PFAS in diverse aqueous environments. By providing time-integrative data, facilitating flux estimation, and reducing logistical burdens, the method supports more representative monitoring of PFAS transport and bioavailability in complex hydrological settings.

Kevin Toth, *Arcadis* **kevin.toth@arcadis.co**m

9:30am: Impending Regulations: Proactive PFAS Management for Wastewater Utilities

This presentation introduces proactive approaches to PFAS management for wastewater utilities to protect the quality of effluent, biosolids, and reuse. Discussion areas include a regulatory update, national and New York State considerations, project examples, and a deep dive into data interpretation.

Jacob Metch, *HDR* **jacob.metch@hdrinc.com**

Jonathan Thompson, *HDR* **Jonathan.Thompson@hdrinc.com**

11:00am: Engineering-Driven PFAS Solutions for Sustainable Water Reuse

As water reuse becomes vital for water security, managing PFAS poses a significant engineering challenge. Conventional treatments generate residual waste streams, creating environmental and regulatory risks. This presentation evaluates a "Concentrate-and-Destroy" framework, integrating advanced separation with destructive technologies. It emphasizes optimizing contaminant mass balance, minimizing waste, and embedding destruction in facility design. Through lifecycle analysis, energy assessments, and risk evaluations, attendees will learn a step-by-step methodology for designing compliant, resilient, and cost-effective PFAS management systems.

Mohamed Ateia Ibrahim, *AECOM* **moha.ateiaibrahim@aecom.com**

Chris Curran, *AECOM* **chris.curran@aecom.com**

11:30am: Combining Thermal Hydrolysis with Pyrolysis to Improve Overall Energy Balance for Treatment of Microcontaminants

There is growing concern over perfluorinated and other xenobiotics in wastewater sludge. This has increased uncertainty over outlets for biosolids and made master-planning complex. Pyrolysis has shown some promise in destroying or converting these compounds. However, it is limited by needing a dried sludge feedstock. Drying consumes approximately 1,500 BTU/lb water evaporated which provides a major challenge. Thermal hydrolysis, a well-known pretreatment to digestion has been shown to improve dewatering. This study will show an analysis based on measured information to see how both thermal hydrolysis and pyrolysis complement each other to reduce overall energy demands.

Bill Barber, *Cambi Inc.* **bill.barber@cambi.com**

Session 16: Regulatory & Government Affairs

Water: 0.0 ATC **Wastewater: 1.5 RTC*** **Engineer: 2 PDH**

9:00am: Boosting Buffalo's Wet Weather Resilience: A Collaborative Upgrade at Bird Island*

The Buffalo Sewer Authority is undertaking significant improvements at the Bird Island WWTF to increase capacity to be in regulatory compliance with their LTCP. These projects have been split into three phases. In addition to increasing capacity, the Authority is using these projects as an opportunity to improve operations and maintenance, replace aging infrastructure, and strengthen public understanding of water infrastructure. The three phases include multiple stakeholders for design and construction that requires close coordination. The presentation will cover how the Authority is leading this collaborative effort for this once in a generation upgrade at the Bird Island WWTF.

Ryan Christopher, *TYLin* **ryan.christopher@tylin.com**

Tim Blake, *Buffalo Sewer Authority* **tblake@buffalosewer.org**

Jamie Johnson, *AECOM* **Jamie.L.Johnson@aecom.com**

9:30am: A Fourth-Year Progress Report: How the USWR is improving water quality one development at a time

February 2026 will mark four years since the NYC Unified Stormwater Rule (USWR) went into effect and results indicate that this rule has achieved significant benefits for NYC Residents. This presentation will cover a detailed look at project successes and improved environmental outcomes that have been driven by the NYC USWR in these first four years, as well as a look at future improvements to the stormwater permitting process that aim to streamline permitting timelines and carry forward these benefits for years to come.

Tyler Carson, *Arcadis* **Tyler.Carson@arcadis.com**

Melissa Enoch, *NYC DEP* **MEnoch@dep.nyc.gov**

11:00am: Mercury - Updates to the SPDES Permitting & Multiple Discharge Variance*

NYSDEC has publicly noticed the 2025 update to DOW 1.3.10: Mercury - Multiple Discharge Variance (MDV). The MDV provides technical guidance for the development of a multiple discharge variance for State Pollutant Elimination System (SPDES) permits that regulate effluent containing mercury. The MDV provides NYSDEC with the ability to implement water quality based effluent limits for total mercury above those developed using the WQS. This presentation will go through the necessity of the mercury MDV, the permitting procedures that DEC implements for total mercury limits, and the major changes included in this 2025 update.

Ethan Sullivan, *NYS DEC* **ethan.sullivan@dec.ny.gov**

11:30am: SPDES Permits and the Environmental Benefit Permit Strategy (EBPS)*

The 1972 Clean Water Act requires that State Pollutant Discharge Elimination System (SPDES) permits be renewed every five years. To effectively manage the large volume of SPDES permits, the Department utilizes an administrative renewal process and priority ranking system known as the Environmental Benefit Permit Strategy (EBPS). The EBPS maximizes the efficiency of developing and managing permits while attaining the highest levels of environmental protection. This presentation will cover the renewal process, EBPS ranking procedures, calculation of the EBPS score, and the EBPS Priority Ranking List.

Monica Moss, *NYS DEC* **monica.moss@dec.ny.gov**

Taylor Shanley, *NYS DEC* **taylor.shanley@dec.ny.gov**

Session 17: Research & Innovation - Process & Controls

Water: 0.0 ATC **Wastewater: 2 RTC** **Engineer: 2 PDH**

9:00am: Digital Twins in Water and Wastewater: A comparative Analysis of Four Competing Approaches to Real-Time Process Modeling

This presentation compares four digital twins for wastewater management optimization (BioWin/BioTwin, Sumo, Simba, West), showcasing how simulation software companies approach real-time data integration differently. From no-code SCADA connectors to Python-based customization requiring extensive programming, each platform offers varying complexity levels and user control. Through four case studies, attendees will understand practical applications, cybersecurity considerations, and criteria for selecting appropriate digital twin solutions matching their facility's technical resources, operational needs, and digitalization goals.

Manel Garrido Baserba, *Brown and Caldwell* **mgarrido@brwncald.com**

John Conway, *Brown and Caldwell* **JConway@BrwnCald.com**

9:30am: Looking just beyond the Horizon: Influent Flow Prediction using Ensemble Learning

Forecasting influent flows at water resource recovery facilities (WRRFs) is essential for effective and resilient plant operations and maintenance. Traditional and most machine learning (ML) approaches focus on short-term horizons and struggle with irregular patterns. We developed a seven-day ahead ensemble ML solution using historical flow, weather, and temporal data from 30 different facilities. Combining multiple algorithms, our model achieved.

Erfaneh Amoueyan, *Stantec* **erin.amoueyan@stantec.com**

Genesis Gilles, *Stantec* **Genesis.Gilles@stantec.com**

Christian Granados, *Stantec* **Christian.Granados@stantec.com**

11:00am: From Overkill to Optimal: CT-based dosing control for more efficient and effective chemical disinfection

This presentation introduces OaSys iCT?, an advanced model-based disinfection control technology that optimizes chemical dosing by accounting for real-time system variability such as hydraulics, background demand, and disinfection kinetics. The presentation explores the fundamental principles behind this technology, applying the Integrated Disinfection Design Framework (IDDF), and demonstrates through case studies how this novel approach improves disinfection performance, reduces chemical use by up to 50%, and enhances regulatory compliance. This focus on foundational understanding while exploring emerging technology ensures that the session supports the development, maintenance, and expansion of critical skills and knowledge for wastewater treatment professionals.

Chet Szczucki, *USP Technologies* **cszczucki@usptechnologies.com**

11:30am: Diversifying the Carbon Portfolio - Using High Strengths Wastes as Supplemental Carbon for Enhanced Biological P Removal

Development of a cost effective and sustainable strategy for P removal at a given facility should consider the complex interactions of influent characteristics, permit structure, existing treatment process, available un/under-utilized process tankage, residuals management practices, and high strength waste sources. Further, the newest nitrogen and phosphorus removal processes should be considered or reconsidered against chemical P removal alone. This presentation will delve into a series of case studies Water Research Foundation Project 4975 where facilities have had to develop out of the box solutions due to site constraints or non-ideal influent characteristics.

Patrick Dunlap, *Black & Veatch* **DunlapPJ@bv.com**

Session 18: Energy Conservation & Generation 2

Water: 0.5 ATC* **Wastewater: 2 RTC** **Engineer: 2 PDH**

9:00am: Master Planning Pathways for Sustainable Food Waste Co-digestion and Beneficial Biogas Utilization

This paper focuses on the approach and tools developed to assist agencies with the decision-making process and to determine revenues for food waste co-digestion and costs for various biogas utilization options. Different outcomes resulting from local infrastructure characteristics, access to renewable natural gas (RNG) vehicle fleets and incentives are demonstrated for a case study in southern California. This evaluation estimated the future increases in digester gas production with food waste addition as part of a sustainable master plan to evaluate the most beneficial digester gas use options including RNG and various cogeneration systems.

Christian Tasser, *Carollo Engineers* **CTasser@carollo.com**

9:30am: Biosolids Paved Road to Renewable Energy Production

Facing evolving biosolids regulations, the City of East Lansing, Michigan, modernized its wastewater resource recovery facility by constructing an anaerobic digester and implementing a Combined Heat and Power (CHP) unit. This presentation follows the project from concept through more than a year of operations, showing how the improvements cut landfill disposal by 40%, generated 75% of onsite power, and saved nearly $1 million annually. Attendees will see how integrating innovative biosolids technologies can enhance sustainability, efficiency, and safety-while taking away a proven framework for evaluating similar opportunities at their own facilities or client projects.

Brent Bode, *Tetra Tech* **brent.bode@tetratech.com**

11:00am: A Structured Approach to Energy Savings Evaluations Can Yield Significant Savings*

This presentation discusses an approach which has been used to identify energy consumption reduction opportunities at water and wastewater facilities. It leverages the experience of individuals working at these facilities from multiple perspectives, from front-line operations and maintenance staff to senior level managers. A multi-disciplined consulting team complements the technical knowledge of the plant staff to leverage their combined to realize quantifiable savings without creating operational or regulatory risks. This approach is based on the understanding that overcoming the cultural challenges in implementing the findings from an energy reduction study is just as important as solving technical challenges.

Rich Atoulikian, *HDR,* **Rich.Atoulikian@hdrinc.com**

11:30am: Light at the End of the Tunnel: The Emerging Role of Photolytic Reactors in the Water-Energy-Nexus

Photolytic reactors have applications in water resource recovery facilities (WRRFs) related to the water-energy-nexus. They enable low-energy reforming of digester biogas into syngas and ammonia cracking into hydrogen, offering reduced costs, improved energy efficiency and more resilient performance compared to traditional methods. This presentation discusses theory of operation, energy and carbon performance, and case studies on producing syngas and green hydrogen using the Rigel Reactor by Syzygy Plasmonics. Opportunities and challenges for widespread deployment will also be discussed.

Paul Knowles, *Hazen and Sawyer* **pknowles@hazenandsawyer.com**

Ishan Rao, *Syzygy Plasmonics* **ishan@plasmonics.tech**

Session 19: CSO/Wet Weather

Water: 0.0 ATC **Wastewater: 1.5 RTC*** **Engineer: 2 PDH**

9:00am: Deluge to Delight: Transforming a Flood-Prone EJ Community Park into a Sustainable Recreational Space

The City of Chester, an environmental justice (EJ) community in Pennsylvania, has suffered chronic flooding and degradation at the historic Veterans Memorial Park due to outdated and ineffective stormwater infrastructure. The project reimagines the park by daylighting a buried stream into a retention basin with automated controls to manage up to 4.4 MG of runoff and improve water quality. Surrounding areas feature a walking trail, scenic overlook, picnic area, native landscaping, and educational signage. Funded by PENNVEST and the Bipartisan Infrastructure Law, the initiative addresses flooding while transforming the site into a vibrant, resilient, and beautiful recreational space.

Adi Pise, *HDR* **adi.pise@hdrinc.com**
Bruce Conner, *Stormwater Authority of the City of Chester PA* **bruce.conner@chesterstormwaterauthority.com**
Marco Finazzi, *CIS* **marco.finazzi@cisolutions.com**

9:30am: Enhancing East Delavan: Sewer Improvements, Environmental Review, and Community Engagement*

This presentation highlights the Buffalo Sewer Authority's East Delavan Sewer Improvements Project, a nearly $100 million investment in new sewers, vortex structures, drill-and-blast connecting tunnels, and a 1.5-million-gallon offline storage facility to reduce CSO discharges. The project is one of the most significant infrastructure investments of Buffalo Sewer's Queen City Clean Waters Program under the CSO Long-Term Control Plan. Attendees will explore design alternatives, project risks, and opportunities, while learning how SEQR and NYSDEC Environmental Justice Commissioner Policy 29 guide environmental review, permitting, and community betterment initiatives.

Rebecca Carmine-Shaw, *Hazen and Sawyer* **rshaw@hazenandsawyer.com**
Regina Harris, *Buffalo Sewer Authority* **rharris@buffalosewer.org**

11:00am: Transforming Inflow and Infiltration (I&I) Detection at Scale ? The Great Neck, NY BASINiQ? Study*

The Great Neck, NY BASINiQ? study represents the largest inflow and infiltration (I&I) assessment of its kind in the United States, deploying 425 Grundfos radar sensors across the entire wastewater collection system. BASINiQ? integrates dense radar-based level monitoring, digital manhole twins, and precision weather data to rapidly pinpoint I&I sources. Study findings found clear locations of inflow leading to actionable insights for capital planning. This landmark project demonstrates that large-scale, data-driven I&I assessment can be achieved in weeks rather than years, transforming how municipalities prioritize rehabilitation, reduce treatment costs, and modernize infrastructure management.

Michael Ciacciarella, *Grundfos* **mciacciarella@grundfos.com**
Jon Borden, *RH Borden* **jon.borden@rhborden.com**

11:30am: New York City's City-wide Pilot Sewer Monitoring Program*

NYC Department of Environmental Protection is piloting a city-wide sewer monitoring program to increase understanding of sewer infrastructure conditions. Over 200 meters have been installed across the City, collecting real-time sewer conditions for data analysis and visualization. The program evaluates vendor technologies, assessing equipment performance, data reliability, and data interoperability. This presentation will share lessons learned from site selection and deployment, providing practical insights for scalable sewer monitoring strategies.

Dorinda Fong, *Arcadis* **dorinda.fong@arcadis.com**
Rebecca Segal, *NYC DEP* **resegal@dep.nyc.gov**
Jairo Avila, *NYC* **DEP javila@dep.nyc.gov**

Session 20: Sustainability

Water: 0.0 ATC **Wastewater: 1.5 RTC*** **Engineer: 2 PDH**

9:00am: DEP's Planning Tool for Energy and Carbon Neutrality*

DEP's Energy and Carbon Neutrality Planning Tool is a powerful, custom-built model that enables DEP's Energy Office to understand how process improvements and changes will impact the energy required to meet its treatment standards. The tool considers every major process at each of the agency's 14 WRRFs alongside projected flows. Each process can be modified to reflect future improvements such as improved thickening or motor upgrades to understand how that might impact energy consumption. This talk will review the model interface and capabilities.

Brendan Hannon, *NYC DEP* **bhannon@dep.nyc.gov**

Carl Lagasca, *AECOM* **Carl.Lagasca@aecom.com**

9:30am: Developing a Cost-Effective Decarbonization Strategy

York Region (Ontario, Canada) developed a cost-effective wastewater decarbonization strategy. The methodology involved a global utility survey, updated GHG inventory, and business-as-usual (BAU) emissions projection to 2050. Emissions were categorized by scope, with Scope 1 (direct emissions) being the largest. A long list of mitigation options was refined based on feasibility, cost, and alignment with capital plans. Seventeen cost-effective projects were identified and prioritized using a multi-criteria analysis. Results showed a potential 45% reduction in emissions by 2050 versus BAU, though only a 3% reduction from 2014 levels due to population growth.

Jeremy Kraemer, GHD, **jeremy.kraemer@ghd.com**

11:00am: Integrating Sludge Fermentation and Mainstream Anammox to Reduce Greenhouse Gas Emissions from WRRFs*

This presentation will outline how food waste and municipal sludge fermentation can be coupled with low DO mainstream anammox nutrient removal processes to achieve nutrient limits while reducing GHG emissions.

Wendell Khunjar, *Hazen and Sawyer* **wkhunjar@hazenandsawyer.com**

11:30am: Carbon Dioxide: The Next Frontier in Resource Recovery and the Fight Against Climate Change*

Municipal WRRFs account for 2-3% of global GHG emissions with a majority from process/fugitive emissions or energy use. This has led many utilities to adopt net-zero goals. However, traditional pathways to meet these goals are cost prohibitive, especially as the easiest emissions are mitigated. Carbon dioxide removal (CDR) provides opportunities for low cost and effective decarbonization solutions. CDR is a broad category of practices that remove CO2 from the atmosphere such as alkalinity treatment, CO2 capture, solids deep well injection, etc. This presentation will focus on LCCAs and opportunities to apply these solutions.

Trung Le, *Brown and Caldwell* **tle@brwncald.com**

Session 21: Design Build 2

Water: 1.0 ATC* **Wastewater: 1 RTC#** **Engineer: 2 PDH**

1:30pm: Are you Ready for a Different Path?*

Research and experience demonstrate the power of preparation for any project, but when embarking on a new delivery method for your organization, this becomes a critical factor in project success. Really, any project can be delivered using any delivery method - but what is your understanding and comfort level in using something that is not currently in your backpack - is Design-Build a resource you can tap now, do you have the right to support your journey? Let me help you understand the factors that come into the decision-making process and planning for your Design-Build journey.

Elizabeth Minyard, *Brown and Caldwell* **eminyard@brwncald.com**

2:00pm: Using Risk-Informed Decision-Making to Drive Success in a WWTP DB#

Design-build delivery streamlines execution but require strategic risk management. This presentation examines mitigation strategies used in the R. Steven Biggs Regional Wastewater Pretreatment Facility, designed to treat 450,000 gallons daily and remove nitrogen and phosphorus from industrial wastewater. GFT employed a multi-phased engineer-procure-construct (EPC) approach to meet a 18-month schedule aligned with the manufacturing facility expansion. The project underscores the value of early risk identification, stakeholder alignment, and adaptive planning. Attendees will gain practical insights into managing technical, regulatory, and logistical risks to deliver complex infrastructure projects on time and within scope.

Teresa Peterson, *GFT,* **tpeterson@gftinc.com**

3:30pm: Leveraging Collaboration in Alternative Delivery to Achieve Envision Success*

This presentation explores how collaboration among owners, engineers, and contractors within alternative delivery methods can enhance project sustainability and drive success in achieving Envision certification. It highlights strategies for early team alignment, shared responsibilities for the Envision submission, and maximizing sustainability outcomes-particularly through construction-focused credits. Two Envision-certified alternative delivery projects serve as case studies, demonstrating how collaborative approaches fostered innovative solutions and earned Envision recognition. Attendees will gain practical insights for integrating Envision into projects through effective coordination and teamwork.

Kathleen Mannion, *Carollo Engineers* **kmannion@carollo.com**

4:00pm: All Pulling Together: Collaborative Delivery of a WWTP Expansion#

This program will outline how the project team was able to successfully implement a challenging expansion of Chobani's WWTP in South Edmeston, NY, by utilizing a collaborative and innovative design-build delivery strategy. The WWTP expansion involved the use of advanced technologies like a membrane bioreactor (MBR) system to achieve stringent discharge limits for the Chesapeake Bay watershed, designed and constructed on fast-tracked schedule, while maintaining current facility operations.

Jason VerNooy, *GHD* **jason.vernooy@ghd.com**

Frank Woodcock, *Chobani* **frank.woodcock@chobani.com**

Kyle Bertke, *ET Environmental Corp.* **kbertke@etenv.com**

Session 22: Manufacturer's Forum

Program Forthcoming

Session 23: Research & Innovation - Nutrient Reduction

Water: 0.0 ATC **Wastewater: 2 RTC** **Engineer: 2 PDH**

1:30pm: Cold Weather Nitrification and Improved Secondary Sludge Settleability: MOB Process demonstration at a Midwestern WWTP

The Mobile Organic Biofilm (MOB) Process is a hybrid wastewater treatment technology that merges the benefits of fixed-film and aerobic granular sludge systems. It uses 100% organic media that freely circulates throughout the secondary process. A 12-month demonstration at Winona, MN WWTP evaluated MOB as a retrofit solution to intensify treatment by improving secondary sludge settleability and achieving cold weather nitrification. Within 90 days, Winona WWTP reached non-detect ammonia levels and operated with 50% of its clarifier volume highlighting the MOB Process's ability to provide a retrofit solution to cold weather nitrification and clarifier capacity limitations.

Erik Anderson, *Nuvoda* **erikanderson@nuvodaus.com**

2:00pm: Membrane Aerated Biofilm Reactor (MABR) - Energy Efficient biological process for Nutrient Reduction

Over the past decade treatment plants throughout the United States have been charged with reducing the total nutrient loading (TP & TN) into receiving water bodies. More recently, the rising costs of energy has strained municipal WWTP budgets. This presentation will introduce the audience to the membrane aerated biofilm reactor (MABR) as an energy efficient technology that also reduces total nitrogen. This is achieved by passively diffusing oxygen through a gas-permeable membrane into a biofilm that grows on the membrane surface while at the same time denitrifying.

Timothy Brett, *Fluence,* **tbrett@fluencecorp.com**

3:30pm: Low DO, High Impact: A sustainable and cost-effective approach to nitrogen management integrating mobile media

Water resource recovery facilities (WRRFs) face growing pressure to meet stringent total nitrogen limits while improving sustainability through reduced energy and chemical use. Low dissolved oxygen (DO) strategies enable simultaneous nitrification-denitrification (SND), offering energy savings and reduced carbon demand. However, SND performance can suffer from seasonal variability. A mobile biofilm process can be used to buffer low DO process variability, enhance SND, and significantly improve overall process capacity. A modular 400-gallon pilot reactor at Boulder WRRF, along with extensive process modeling, will be used to evaluate strategies for sustainable process intensification using existing infrastructure.

Kelly Gordon, *Stantec* **kelly.gordon@stantec.com**

4:00pm: Partial Denitrification Anammox (PdNA): Overview, Design Criteria, and Implementation for the DOE PdNA Project

This presentation will provide a general PdNA overview and will describe a $4 million U.S. Department of Energy (DOE) PdNA study that is implementing PdNA in six water resource recovery facilities nationwide. The study focuses on determining engineering design criteria such as nitrogen loading and removal rates, mixing, headloss, fill ratios, and retrofittability of different media (moving integrated fixed-film activated sludge [IFAS], fixed IFAS, and biological aerated filters [BAFs]) to enable widespread PdNA implementation.

Brett Wagner, *AECOM* **brett.wagner@aecom.com**

Jim McQuarrie, *AECOM* **jim.mcquarrie@aecom.com**

Ganesh Rajagopalan, *AECOM* **Ganesh.Rajagopalan@aecom.com**

Sarah Schoepflin, *AECOM* **Sarah.Schoepflin@aecom.com**

Session 24: SCADA to AI: The Future of Utility Management

Water: 2.0 ATC Wastewater: 2 RTC Engineer: 2 PDH

1:30pm: SCADA Master Plans: What are they Good For?

Water utilities are rapidly evolving from basic SCADA oversight into comprehensive digital strategies that integrate innovation, efficiency, and cybersecurity. This presentation highlights three case studies-a large Florida utility, a Texas regional provider, and a growing Colorado utility-each demonstrating how tailored SCADA Master Plans drive modernization, resilience, and long-term value. Attendees will learn how systematic planning, stakeholder collaboration, and open-architecture design create scalable, secure solutions adaptable to any utility size. The session shares practical frameworks, lessons learned, and proven methodologies that empower utilities to transform operations into robust digital strategies, ensuring sustainability and preparedness for future challenges.

Quinn Binford, *Tetra Tech* **quinn.binford@tetratech.com**

2:00pm: Advancements in SCADA Technology

SCADA systems in the water and wastewater industry are evolving fast-embracing modern communication protocols, enhanced cybersecurity, and multi-functional cloud integration. This presentation reveals how these innovations break down data silos and empower unified platforms that go beyond monitoring and control. Attendees will discover practical strategies to improve operational resilience, secure their OT networks, and consolidate system functionality-driving greater efficiency and insight in utility operations.

Tyler Miller, *Metropolitan Industries, Inc.,* **tmiller@metropolitanind.com**

3:30pm: From SCADA to Smart: Preparing Water Utilities for AI Integration through Modernization

As artificial intelligence (AI) moves from concept to application in the water and wastewater sector, utilities are eager to leverage its potential to enhance operational efficiency, resiliency, and asset management. AI offers capabilities such as predictive maintenance, real-time anomaly detection, energy optimization, and demand forecasting - tools that can significantly improve performance, reduce costs, and ensure regulatory compliance. However, many utilities remain unprepared to implement AI at scale due to outdated SCADA and control system architectures that were not designed with digital readiness in mind.

Billy Fox, *HDR* **billy.fox@hdrinc.com**

4:00pm: Integrating Machine Learning and Artificial Intelligence into Management of Systems in the Water Industry

This presentation explores the integration of machine learning (ML) and artificial intelligence (AI) in the water industry. It highlights the transformative potential of AI and ML in addressing challenges in water resource management, infrastructure optimization, and operational efficiency. The presentation will introduce ML paradigms relevant to the water industry, real-world case studies, the importance of data quality and system integration and water-industry specific challenges.

Sandeep Sathyamoorthy, *Stantec* **sandeep.sathyamoorthy@stantec.com**

Session 25: When Asset Management Meets Operations & Maintenance

Water: 2.0 ATC Wastewater: 2 RTC Engineer: 2 PDH

1:30pm: Condition Assessment - Beyond the Visual: When Data Management Meets Facility Operations

This presentation challenges the traditional view of condition assessments as purely visual inspections, emphasizing the critical role of accurate operational data. Highlighting WSSC's efforts to update outdated or missing loop diagrams, P&IDs, and process control narratives at three facilities, the session outlines how maintaining "living documents" supports efficient facility operation. Learn how WSSC, with Carollo, developed a replicable process for integrating documentation updates into condition assessments, laying the foundation for improved maintenance and planning across their systems.

Daniel Pomeroy, *Carollo Engineers* **dpomeroy@carollo.com**

Chrissy Swann, *Carollo Engineers* **Cswann@carollo.com**

2:00pm: NFPA-70B From Recommended Practice to Industry Standard; a brief primer on regulatory requirements and compliance

An exploration into the transition of NFPA-70B from a recommended practice to the standard. This presentation will break down the scope and schedule requirements for electrical maintenance as required by the NFPA-70B standard, how to leverage these requirements into extending equipment lifetimes, as well as exploring the NFPA-70E electrical study, and labeling requirements.

Jim Simko, *TYLin* **jim.simko@tylin.com**

3:30pm: Condition Derby: The Race Against Asset Operational Inefficiency

Brown and Caldwell (BC) conducted a comprehensive condition assessment for Louisville and Jefferson County Metropolitan Sewer District (MSD). This included of five regional water quality treatment centers, 15 package treatment centers, 300+ sanitary pump stations, and 16 flood pump stations. Standardized inspections and data collection during condition assessment informed asset risk analysis, leading to targeted rehabilitation and renewal recommendations. This presentation explores the assessment process, key findings, and how MSD applied data collected to enhance asset performance and decision-making within their system.

Anya Beuhler, *Brown and Caldwell* **abeuhler@brwncald.com**

Caitlyn Binkley, *Brown and Caldwell* **cbinkley@brwncald.com**

4:00pm: Plant Operations Support: Addressing Current Needs while Looking to the Future

PWD's approach to obtaining Operations support is to utilize on-site support for operators, by operators who provide experience from plants with of similar processes, capacity and complexity. This presentation will present the areas where STV partnered with PWD operations to optimize processes and move towards facility permit compliance, assisted in documenting operating procedures and training, and help establish priorities for the next phase of needed infrastructure improvements.

Adam Burger, *STV Inc.* **adam.burger@stvinc.com**

Samantha O'Connor, *Philadelphia Water Department* **samantha.oconnor@phila.gov**

Session 26: Planning & Modeling - Stormwater Focus

Water: 0.0 ATC **Wastewater: Pending** **Engineer: 2 PDH**

1:30pm: New York City's Sewer Atlas & Utility Planning

Recently, New York City completed a massive effort to create a citywide all-pipes sewer model in InfoWorks ICM. Following the successful development of these detailed models, NYCDEP created a robust digital tool to help visualize the key infrastructure and constraints within the City's extensive sewer system. This presentation will focus on the establishment of this tool, named the Sewer Atlas, and the application of that tool in future capital planning efforts.

Russell Dudley, *Arcadis* **russell.dudley@arcadis.com**
Wendy Sperduto, *NYC DEP* **wsperduto@dep.nyc.gov**
Steve Carrea, *NYC DEP* **scarrea@dep.nyc.gov**

2:00pm: Root cause analysis of urban flooding and evaluation of customized mitigation alternatives in Somerville, MA

The City of Somerville used a very detailed, citywide 2D hydraulic model to identify root causes of flooding in different sewershed areas using a hierarchical approach. Criteria included downstream boundary limitations, drain and trunk line capacity limitations, localized conditions such as insufficient catch basin inlet capacity, and combinations thereof. Once cataloged and understood, these root causes were used to develop targeted projects to address flooding issues. Additionally, and because of the water quality and other co-benefits that green infrastructure (GI) brings, potential sites where GI features could be implemented were identified within those same project areas.

David Bedoya, *Dewberry* **dbedoya_CONTRACTOR@dewberry.com**
Miles Bateman, *Dewberry* **mbateman@dewberry.com**

3:30pm: Cloudburst Dynamics at West Point Military Academy

This presentation details a comprehensive hydraulic study conducted at West Point Military Academy following a severe cloudburst event in July 2023, which delivered over 8 inches of rain in three hours, causing more than $200 million in damages. Tetra Tech surveyed several miles of open channels and approximately 2,500 stormwater structures within the cantonment area to develop a detailed 2D hydraulic model. The analysis identifies operational deficiencies caused by hydraulic restrictions in the riverine and stormwater management system. Preliminary alternatives to mitigate these issues will be proposed, aiming to enhance flood resilience and protect critical infrastructure at the installation.

Jake Oldenburger, *Tetra Tech* **jake.oldenburger@tetratech.com**
Justin Voss, *Tetra Tech* **justin.voss@tetratech.com**

4:00pm: Automated Tools for Amended Sewer Drainage Planning

Since 2022, the New York City Department of Environmental Protection (NYCDEP) has advanced its drainage planning through integrated subcatchment modeling. To streamline the transition from modeled drainage plans to finalized drawing sets, NYCDEP initiated the development of an automated workflow leveraging Infoworks ICM, ArcGIS Pro, and AutoCAD. This automated workflow significantly reduces manual effort, enhances QA/QC consistency, and accelerates drawing production timelines. The presentation will highlight the technical development, implementation strategy, and early outcomes of this initiative, demonstrating its potential to serve as a scalable model for urban infrastructure modernization.

Lucie Worthen, *Arcadis* **lucie.worthen@arcadis.com**
Charles Shulman, *NYC DEP* **cshulman@dep.nyc.gov**
Gabriel Martinez-Vasquez, *NYC DEP* **gmvasquez@dep.nyc.gov**

Session 27: Collection Systems

Water: 0.0 ATC Wastewater: 1.5 RTC* Engineer: 2 PDH

1:30pm: Master Planning for Hampton Roads Sanitation District Boat Harbor Projects*

Presentation will discuss early, planning-level decision making process that was followed to decide to close a wastewater treatment plant, to divert the flows to another plant, and to enlarge the destination plant to accommodate the additional flows. Overall utility financial and logistical considerations as well as preliminary technical evaluations will be described.

David Steele, *AECOM* **david.steele1@aecom.com**

Bo Bodneiwicz, *AECOM* **bohdan.bodniewicz@aecom.com**

2:00pm: Maximizing Wet Weather Capacity with Flow Diversion Between Two Large Diameter Interceptors

The Town of Amherst has seen increased interest for mixed use commercial/residential development. However, in one Opportunity Zone development is restricted by the lack of sewer capacity. To increase capacity, a 15 mgd pump station is under construction to transfer flow between large diameter interceptors during wet weather events. The $40 million project features a 2-mile long forcemain along a congested state highway with numerous utility conflicts and numerous trenchless installation techniques.

John Story, *GHD* **john.story@ghd.com**

3:30pm: A Tale of Two Collection Systems: How the PJPS Project Reduced CSO Using Hydraulics to Optimize Storage & Reduce Inflows

The PJPS project stands out among the District's Project Clean Lake initiatives due to its unique challenges and solutions. Unlike other projects that primarily face capacity issues in existing infrastructure, PJPS also contends with complex hydraulic problems such as basement and surface flooding, creek backwater, and the conveyance of Old Treadway Creek. A system optimization effort considered alternatives like redirecting flows, utilizing existing storage, and rehabilitating old infrastructure. Ultimately, a single consolidated tank was deemed feasible, offering benefits like reduced maintenance, a smaller construction footprint, fewer permits, and less traffic disruption.

Vito Cimino, *Stantec* **vito.cimino@stantec.com**

Shannon Conway, *Stantec* **Shannon.conway@stantec.com**

4:00pm: Sanitary Sewer I/I Elimination - Lower Paxton Township Authority's Measured Successes and Lessons Learned*

Comprehensive approach and significant achievements of Lower Paxton Township Authority (LPTA) in mitigating inflow and infiltration (I/I). Prompted by a series of consent decrees, LPTA implemented a dynamic rehabilitation and replacement program aimed at aging sewer infrastructure including public mains and private building sewers. Completing work in 37 mini-basins with an investment of $117 million, the program resulted in I/I removal rates exceeding 90%, with peak hourly I/I reductions surpassing 40 million gallons per day. Notably, all 40+ overflow locations were eliminated in the Township with full compliance ahead of regulatory deadlines.

Alton Whittle, *GHD* **alton.whittle@ghd.com**

Bill Weaver, *Lower Paxton Township Authority* **wweaver@lowerpaxton-pa.gov**

Session 28: Reducing Flood Impacts - Resilient Design

Water: 0.0 ATC Wastewater: Pending Engineer: 2 PDH

1:30pm: Flood Mitigation Study for the Hamlet of New Hamburg, New York

Boomi led the flood risk assessment and mitigation study for the Town of Poughkeepsie, through a grant from New York State. This presentation will share the lessons learned and a structured approach to assessing the flood risk and undertaking of a robust approach to evaluate alternatives and select cost-effective solutions. A comprehensive hydrologic and hydraulic model was developed to support this effort and the innovative approaches to data clean-up, model construction, validation, and application to flood risk assessment will be discussed. Also, the public outreach and steering committee efforts will be summarized.

Srinivasan Rangarajan, *Boomi Environmental* **sri@boomi-environmental.com**

Michael Welti, *Town of Poughkeepsie* **mwelti@townofpoughkeepsie-ny.gov**

Kristen Taylor, *Town of Poughkeepsie* **ktaylor@townofpoughkeepsie-ny.gov**

2:00pm: Stormwater Tunnels - Mitigating Risks

Our presentation will focus on how to both design and construct stormwater tunnels for use in managing stormwater. As more and more tunnels are being built for stormwater conveyance, there are numerous risks which must be evaluated from both a hydraulic and geotechnical perspective. The need for tunnels is being driven by multiple factors, including near surface congestion of existing infrastructure & larger storm events.

Robert Page, *HNTB* **Corporation rtpage@hntb.com**

Mark Stephani, *HNTB* **Corporation mstephani@hntb.com**

3:30pm: Applying NYC DEP's Climate Resiliency Design Guidelines to Drainage Planning

New York City's Climate Resiliency Design Guidelines (CRDG) are transforming the drainage planning process by incorporating future climate projections into Amended Drainage Plans (ADPs). This presentation will show how modeling, benefit-cost analyses, and inter-agency coordination generate resilient, actionable solutions, guiding long-term infrastructure investments.

Dillon Fields, *Arcadis* **dillon.fields@arcadis.com**

Marceliano Carlota II, *NYC DEP* **mcarlota@dep.nyc.gov**

Michael Schector, *NYC DEP* **mschector@dep.nyc.gov**

4:00pm: Meeting the Challenge: Mitigating Pluvial Flooding in Low-Lying Urban Areas

In 2018, Madison, Wisconsin, experienced historic flooding that exposed vulnerabilities of its low-lying East Isthmus Watershed. This presentation highlights the City's watershed study program, which used advanced 1D/2D stormwater modeling, statistical analysis, and public engagement to differentiate pluvial flooding from lake- and river-driven events. Attendees will learn how tiered level-of-service targets and collaborative planning shaped feasible infrastructure improvements, reducing predicted 100-year flood impacts from 98 buildings to 2. The session provides a practical framework for integrating modeling, public input, and hydraulic constraints to design effective, scalable flood mitigation strategies in complex urban environments.

Jenna Troppman, *Tetra Tech* **jenna.troppman@tetratech.com**

Justin Voss, *Tetra Tech* **justin.voss@tetratech.com**

Session 29: University Forum

1:30 - 4:30pm: TBD

WEDNESDAY, FEBRUARY 4, 2026

Session 30: Resiliency

Water: 0.0 ATC **Wastewater: 1 RTC*** **Engineer: 2 PDH**

9:00am: Use of Rain on Mesh Modeling approaches for Innovative Bluebelt Systems in NYC ? Prospect Park Case Study

Historically, New York City has successfully implemented Bluebelt systems throughout Staten Island. In other boroughs of NYC, there are opportunities to implement integrated drainage and Bluebelt systems in areas such as large parks and daylight historic streams. This presentation will showcase a case study using Prospect Park located in Brooklyn as example to demonstrate use of advanced rain on mesh H&H modeling approaches to develop an integrated drainage and Bluebelt stormwater management systems.

Rahul Parab, *Dewberry* **rparab@dewberry.com**

Kelly Harris, *Dewberry* **keharris@dewberry.com**

Sangmithra Iyer, *NYC DEP* **siyer@dep.nyc.gov**

Samantha Melton, *NYC DEP* **smelton@dep.nyc.gov**

9:30am: Flushing Meadows Corona Park Resiliency Study: Advancing Nature-Based Climate Adaptation in One of NYC's Largest Parks

Flushing Meadows Corona Park faces growing climate hazards including chronic flooding, sea level rise, extreme heat, and water quality degradation. Led by Waterfront Alliance with NYC Parks, the Resiliency Study combines hydrologic analysis, ecological design, and extensive community engagement to create a nature-based resilience vision for the park. Key strategies include daylighting Flushing Creek and reshaping Meadow Lake's edges to expand water storage, improve water quality, restore habitats, and reduce heat risk. This presentation will highlight FMCP's vulnerabilities, community input, and the resilience framework designed to safeguard recreation, ecology, and the park's longevity for future generations.

Joseph Sutkowi, *Waterfront Alliance* **jsutkowi@waterfrontalliance.org**

Patrick Parault, *AKRF* **Pparault@akrf.com**

Lin Pham, *SCAPE* **linh@scapestudio.com**

11:00am: Climate Resilience and Adaptation in the Water Sector*

This presentation explores climate resiliency adaptation strategies for small municipalities, equipping them with effective stormwater management. Interconnected case studies will demonstrate how modeling & design can drive infrastructure transformation. The first study focuses on watershed-scale risk assessment & flood mitigation to identify solutions. The second advances to final design, highlighting digital twin delivery connecting modeling with construction & asset-management documentation.

Adriana Herrera, *WSP* **Adriana.Herrera@wsp.com**

Elias Galvan, *WSP* **elias.galvan@wsp.com**

11:30am: Rethinking Pumping Stations: Valveless Independent Discharge Designs for Resilience & Reliability*

Independent discharge valveless pumping stations eliminate headers, isolation valves, and check valves, offering a simple, resilient configuration that reduces cost, footprint, and maintenance. Each pump discharges through an elevated pipe above the Design Flood Elevation (DFE), providing passive backflow prevention and improved reliability during extreme events. Concept designs for NYCDEP's Coney Island and Owls Head WRRFs effluent pumping stations demonstrate how this approach enhances resilience, simplifies O&M, and adapts to challenging hydraulic conditions.

Tom Fini, *AECOM* **tom.fini@aecom.com**

Session 31: Collection Systems 2

Water: 0.0 ATC **Wastewater: 2 RTC** **Engineer: 2 PDH**

9:00am: A Comparison of Gravity and Low-Pressure Sewer Alternatives for Wastewater Conveyance Systems

Two of the most frequently utilized sewer alternatives include gravity and low-pressure sewers. Although it is a newer technology, low-pressure sewers have made a significant presence in some areas of the United States in recent years due to certain benefits that they have over the more traditional gravity sewers.? This presentation will aim to highlight key differences in the following areas to demonstrate where gravity or low-pressure sewers may be more beneficial over the other: history/record, applicability, construction, potential costs, and operation and maintenance.

Zachary Galella, *IMEG* **zach.t.galella@imegcorp.com**

9:30am: Low Pressure Sewer Systems - Lessons Learned

As construction is nearing completion on Phases 1 and 2 of the Forge River Watershed Sewer Project and design is underway for Phase 3, the Design Team is implementing lessons learned from the design and construction from Phases 1 and 2. The presentation would focus on the use of public outreach, website, GIS data base and design considerations.

Dan Goncz, *GFT* **dgoncz@gftinc.com**

Lars Augustin, *GFT* **laugustin@gftinc.com**

11:00am: Considerations when you have to upgrade your ACP Sewer

The Township of Branchburg, New Jersey needed to increase the capacity of their sanitary sewer system due to proposed developments. The project included the replacement of 8" ACP sewer with 12" PVC sanitary sewer. The following design alternatives were considered and evaluated for the upgrade of the ACP sanitary sewer: Pipe bursting; Construction of parallel sewer and abandonment of existing ACP sewer; Construction of parallel sewer and maintain operation of existing ACP sewer; and Removal of existing ACP sewer and installation of new sewer in the same trench. Regulatory requirements regarding the ACP Sanitary Sewer will be discussed.

David Klemm, *Mott MacDonald* **David.klemm@mottmac.com**

Emily Shibata, *Mott MacDonald* **Emily.Shibata@mottmac.com**

11:30am: Innovative Solutions for Combined Sewer Overflow Control in Muncie, Indiana

The Muncie Sanitary District utilized both an innovative contracting method along with design innovations to implement measures to help manage its combined sewer overflow systems. The design featured an innovative tunnel, pump station and wet weather storage basin to control and minimize combined sewage overflows.

Robert Page, *HNTB* **Corporation rtpage@hntb.com**

Session 32: Emerging Contaminants and PFAS

Water: 0.0 ATC **Wastewater: 1.5 RTC*** **Engineer: 2 PDH**

9:00am: Join the PAC! Using PAC for PFAS Polishing in Reuse Systems

This presentation explores the potential of PAC in addressing low concentrations of PFAS contamination in reuse applications. Benefits of PAC utilization include simple integration with existing infrastructure, low capital costs, and quick implementation for regulatory compliance. Empirical data from Colorado and Florida illustrate real-world PAC performance and optimal dosing strategies. Additionally, this presentation discusses potential challenges with utilizing PAC, such as an uncertain regulatory framework around disposal of PAC-based solids. This presentation will center around multiple utilities' efforts to quantify the effectiveness of PAC for PFAS removal through various bench-top, pilot, and full-scale testing.

Michelle Young, *Carollo Engineers* **myoung@carollo.com**

Melanie Pickett, *Carollo Engineers* **mpickett@carollo.com**

9:30am: Piloting, Design, and Construction Using CMAR for Ultra-Low Phosphorus Compliance*

To comply with the anticipated ultra-low effluent total phosphorus limit of 50 μg/L, New Hampton Hatchery initiated an evaluation process to identify efficient and operationally feasible treatment technologies. Challenges included limited technology options for ultra-low TP levels, budget constraints, the facility's remote location, and inexperienced staff, ruling out complex solutions. The selected technology, DynaSand D2 continuous backwash filtration-was piloted in 2024, marking its first application for hatchery effluent treatment in the U.S. Results demonstrated that a single-stage filter with upstream metal salt addition consistently met the 50 μg/L TP target.

Samuel Brown, *HDR* **samuel.brown@hdrinc.com**

Mahsa Mehrdad, *HDR* **mahsa.mehrdad@hdrinc.com**

11:00am: Managing Co-Contaminants: PFAS and Microplastics in Wastewater Systems*

Microplastics (MPs) and per- and polyfluoroalkyl substances (PFAS) are persistent contaminants that challenge wastewater treatment systems. While conventional processes remove many MPs, smaller particles and PFAS often escape into effluent and sludge. MPs also adsorb PFAS, complicating their fate and transport. Advanced methods such as membrane filtration, electrocoagulation, and biofilm-based degradation show promise but face cost and operational barriers. Sludge management adds further risks through land application. Mitigating MP-PFAS contamination will require integrated strategies that combine improved treatment technologies, regulatory frameworks, and public awareness to protect ecosystems and human health.

Zhiyong Xia, *GHD* **zhiyong.xia@ghd.com**

11:30am: Emerging Separation and Destruction Technologies to Mitigate PFAS in Leachate*

Per- and polyfluoroalkyl substances (PFAS) have substantially altered our water and wastewater management landscape. It is important to understand sources of PFAS into water resource recovery facilities (WRRFs) so that technologies can be assessed for PFAS reduction. Landfills often have high levels of PFAS from the breakdown of consumer products. The Leachate is often sent to WRRFs and can be a source of PFAS to WRRFs. Reduction of PFAS in the leachate can be beneficial to the characteristics of biosolids, effluent surface water limit guidelines, and drinking water concerns when source water is influenced by wastewater effluent.

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

Session 33: Circular Economy

Water: 0.0 ATC Wastewater: 1.5 RTC* Engineer: 2 PDH

9:00am: Overcoming Water Reuse Barriers Within the Beverage Industry*

Water is essential to the beverage industry. Without sufficient water, beverage companies cannot produce their products. Water reuse offers a compelling opportunity for beverage manufacturers to achieve water sustainability. There are numerous barriers associated with water reuse at beverage plants, and they fall into three major categories: stakeholder engagement, the regulatory environment, and treatment and technology issues. Despite complexity they can be broken down into actionable next steps to advance reuse practices.

Paul Bowen, *GHD* **paul.bowen2@ghd.com**

Pete Capponi, *GHD* **Peter.Capponi@ghd.com**

9:30am: Sewage Thermal Energy Use Arrives in New York!*

Orange and Rockland Utilities, Inc., an electric and natural gas provider, has launched a thermal energy pilot project in the Town of Haverstraw. The Haverstraw Joint Regional Sewer Board, the Town's sanitary sewer service provider, supports exploring the feasibility of sewer thermal heating and cooling using the existing thermal energy in their sanitary sewer collection system. This initiative aims to reduce reliance on fossil fuels, modernize buildings, and create economic development opportunities.

Ted Nitza, *Kimley-Horn,* **Ted.Nitza@kimley-horn.com**

Brian Urlaub, *Salas O'Brien Engineering,* **Brian.urlaub@salasobrien.com**

11:00am: Critical Water, Wastewater, and Thermal Infrastructure Development for a Resilient Neighborhood in War-Affected Ukraine

The Central Ukrainian city of Tetiiv in partnership with Kyiv-based NGO Vid Sertsya Budova is developing a new neighborhood for displaced people, veterans, and local residents with EU-compliant water, wastewater, and heating infrastructure in mind. This study provides a pre-feasibility study: estimating the necessary water, wastewater, and geothermal heating infrastructure for the new neighborhood. The study offers a model for climate-aligned rebuilding in post-conflict and post-disaster regions.

Isaac Gendler, *MIT* **igendler@mit.edu**

11:30am: Water Reuse in the Big Apple - NYC's First Guidance Document for Decentralized Non-Potable Reuse System*

New York City (NYC) is advancing decentralized non-potable water reuse through a new Guidance Manual. Traditionally associated with water-stressed regions, NYC is reframing water reuse as a proactive tool for urban resilience and sustainable design. The Guidance Manual, developed for a broad range of stakeholders, outlines implementation pathways for building- and district-scale systems. It defines approved end uses, treatment requirements, and public health protection measures, drawing from national best practices. Developed in collaboration with various city agencies, this Guidance Manual offers a model for other urbanized areas seeking to integrate recycled water into their water management portfolios.

Maria Di Landro, *Hazen and Sawyer* **mdilandro@hazenandsawyer.com**

Alan Cohn, *NYC DEP* **AlanC@dep.nyc.gov**

Session 34: Research & Innovation at the Plant

Water: 0.0 ATC **Wastewater: 2 RTC** **Engineer: 2 PDH**

9:00am: Novel Biotechnology to Enhance Anaerobic Digestion of Municipal Sewage Sludge

TradeWorks Environmental in collaboration with Toronto Metropolitan University, evaluated a novel biotechnology to enhance anaerobic digestion (AD) of municipal sewage sludge using TWAS from the Ashbridges Bay Treatment Plant. Specialized microbial cultures improved sludge biodegradation, raising SCOD by 270% and VFAs seven-fold. Methane production rose 87% (116?218 mL/g TCOD), with methane content increasing from 55% to 61%, while biogas yield doubled. Sludge dewaterability improved 10%, lowering polymer needs. Microbial analysis revealed a shift toward hydrogenotrophic methanogens, supporting efficient methane recovery. This study highlights biotechnology's potential to advance AD efficiency, resource recovery, and sustainable wastewater management globally.

Dimitris Chrysochoou, TradeWorks Environmental **christos@tradeworksinc.com**

9:30am: Changing The Potential of Anaerobic Digestion for Resource Recovery and Capacity Through Vacuum Evaporation

Ammonia is a primary limitation on current digestion processes like thermal hydrolysis. IntensiCarb (IC) is an embryonic technology that utilizes the novel application of vacuum evaporation in a recuperative thickening mode to decouple digester solids retention time and hydraulic retention time. The recovery of ammonia from the IC digester to the evaporator condensate creates not only improved digester operations but can be readily converted and purified industrial chemicals. Diversion of ammonia from the recycled streams to the head of the plant saves on capacity and OPEX while creating a potential revenue source and a significant renewable source of nitrogen.

Christopher Muller, *Brown and Caldwell* **cmuller@brwncald.com**

11:00am: Layering Low-DO, Densification and PdNA-Based Intensification: Practical Approaches for Meeting Stringent TN Limits

Water Resource Recovery Facilities (WRRFs) must meet stringent total nitrogen (TN) limits while reducing energy, carbon, and footprint. Modeling at multiple facilities shows that layering intensification strategies, low dissolved oxygen (DO) operation, sludge densification, and partial denitrification-anammox (PdNA), can achieve effluent TN.

Pusker Regmi, *Stantec* **pusker.regmi@stantec.com**

11:30am: Insights from Screening Thickened Primary Sludge

This presentation will focus on pressurized sludge screening of thickened primary sludge at 6 to 12% total solids (TS) with a full-scale pilot unit, which no one had tested a concentration this high before. Data will be shared on the installation constraints of a full-scale pilot system that was operated at a plant in NY, data collected, and performance discussed. Various lessons learned will be shared about the quantity of material removed, particle size, screen meshes, and limitations and considerations depending on objectives and upstream equipment at a plant.

Vincent Apa, *CDM Smith* **apavl@cdmsmith.com**

Session 35: Environmental Restoration & Water Quality

Water: 0.0 ATC Wastewater: 0 RTC Engineer: 2 PDH

9:00am: Tidal Wetland Restoration through Small Scale Hydrologic Changes

While many tidal wetland restoration projects complete extensive site re-grading, importation of fill material to raise grades, and replanting, smaller scale restoration techniques can be implemented to limit further degradation and encourage beneficial tidal hydrology. Increasing circulation reduces the high salinity levels and low dissolved oxygen levels seen in mudflat areas, allowing for revegetation of these areas. This presentation will discuss practical examples of low-cost high-impact strategies for improved resilience of coastal resources.

Michael Spina, *HDR* **Michael.Spina@hdrinc.com**

9:30am: Building a case for resilience within salt marsh restoration: Lessons Learned from Long Beach Township and Resilient LBI

With ever-pressing climate change-related risks and stressors, framing the value of salt marsh restoration projects from a coastal resilience perspective can open more opportunities for funding and partnerships. In this presentation, we will make the case for resilience as a key benefit of coastal restoration using the Long Beach Township salt marsh and hybrid resilience living shorelines project as a case study to provide lessons learned from the design team.

Anna Hochhalter, *Ramboll* **ahochhalter@ramboll.com**

11:00am: Don't be Duped by the Poop: Using Bacterial DNA Testing to Determine Fecal Indicator Bacteria Sources

High levels of fecal indicator bacteria (FIB) in surface waters pose health, ecological, and economic risks. Traditional monitoring identifies contamination but not its source or risk level. Bacteroides testing enhances investigations by detecting human-specific DNA markers, helping distinguish human from non-human pollution. This cost-effective method improves source tracking and supports targeted remediation. The presentation will cover Bacteroides biology, benefits of testing, result interpretation, real-world applications through case studies, and strategies for integrating Bacteroides testing into water quality programs to improve decision-making and infrastructure operations.

Janelle Bonn, *EDR* **jbonn@edrdpc.com**

11:30am: Safeswim: A Blueprint for the Utility of the Future

Safeswim is a cutting-edge water quality management platform that showcases how utilities can evolve into data-driven, responsive service providers. By integrating real-time modeling, AI, and digital twin technology, it empowers infrastructure operators to predict risks, optimize asset performance, and engage the public. Its success in New Zealand and Thailand demonstrates its scalability and relevance for modern utilities seeking resilience, transparency, and sustainability.

Chris Tryon, *Mott MacDonald* **christopher.tryon@mottmac.com**

Session 36: Facility Upgrades

Water: 0.0 ATC **Wastewater: 2 RTC** **Engineer: 2 PDH**

1:30pm: Ageing Infrastructure: A Case Study of the Rehabilitation of the Bowery Bay Primary Settling Tanks

This presentation is a case study of the rehabilitation of the NYC DEP's Bowery Bay WRRF primary settling tanks. The plant's fifteen primary settling tanks were originally constructed in three generations from 1938 to 1971. The existing tanks and associated chain and flight equipment are failing and in need of major improvements. The concrete tanks are deteriorating and will be structurally repaired and reconstructed. The mechanical systems, including the chain and flight system and cross collectors, including motors and control system will be upgraded and improved to alleviate historical issues.

Stephen Mitchell, *TYLin* **stephen.mitchell@tylin.com**

2:00pm: From Compliance to Resilience: Modernizing the Little Falls Run WWTF

Stafford County's Little Falls Run Wastewater Treatment Facility is modernizing its facilities based on capital planning recommendations. The project initially went out to bid in 2023, but escalations in labor, equipment, and material prices pushed costs beyond the County's budget. Through value engineering, the team redesigned the project to fit fiscal limits without sacrificing regulatory compliance. The project includes influent screen replacement, grit/grease system rehabilitation, chemical feed system upgrades, tertiary filter gate automation, and UV system upgrades. This presentation details the technical modifications, schedule and cost impacts, and strategies for delivering code-compliant upgrades under constrained budgets.

Ryan Pierce, *Ramboll* **rpierce@ramboll.com**

Cheer Tsang, *Ramboll* **cheer.tsang@ramboll.com**

3:30pm: York Sewer District Dewatering Optimization

The York Sewer District partnered with Brown and Caldwell to enhance their dewatering process, aiming to reduce cake solids variability and explore polymer usage reduction. They evaluated data, made systematic changes to screw presses, and conducted laboratory trials. Initial findings from historical data were inconclusive but identified optimization opportunities. Operational changes and capital investments were considered. Continued evaluations and recent laboratory results aim to inform further improvements.

Tracy Chouinard, *Brown and Caldwell* **tchouinard@brwncald.com**

Darren Lauletta, *York Sewer District* **dlauletta@yorksewerdistrict.org**

4:00pm: Upgrades to the Primary Settling Tanks at the Grass Island Wastewater Treatment Plant

The Town of Greenwich owns and operates the Grass Island Wastewater Treatment Plant. The facility is permitted to treat 12.5 MGD and utilizes five (5) rectangular chain and flight clarifiers to achieve primary settling. Three of these tanks were constructed in 1962 and two were constructed in 1992. The mechanical components of all five (5) tanks were replaced in 1992 and are approaching the end of their useful life and in need of replacement. Field inspection of the concrete tanks identified the need to perform structural repairs of scaling, cracks and spalls followed by an interior epoxy coating.

Peter Petriccione, *GFT* **ppetriccione@gftinc.com**

Session 37: The Linear Perspective on Asset Management

Water: 0.0 ATC **Wastewater: 1.5 RTC*** **Engineer: 2 PDH**

1:30pm: Planning for the Unknown: Resiliency and Risk in the Age of Stormwater Surprises

Drainage infrastructure is often overlooked until it fails, yet its performance is critical to community resilience. Unlike water and sewer systems, stormwater assets lack standardized risk assessment methods and complete data. With increasing precipitation and climate pressures, understanding stormwater system vulnerabilities is urgent. This presentation introduces a framework using proxy methodologies to assess likelihood and consequences of failure, even with limited asset data. It explores how MS4 compliance data and climate projections can be integrated into asset management programs to support targeted resiliency planning and capital improvement strategies for aging and under-mapped drainage infrastructure.

Janelle Bonn, *EDR* **jbonn@edrdpc.com**

2:00pm: Systemwide Solutions: Onondaga County's Data-Driven Approach to Building Their CMOM Program*

Onondaga County is embarking on a multi-year comprehensive initiative to enhance its Capacity, Management, Operations, and Maintenance (CMOM) Program. This effort is aimed at improving system reliability, optimizing performance, and ensuring regulatory compliance across its wastewater infrastructure.Work includes - Understanding the methodology for developing a capacity model for a WWTP service area. - Learning how flow metering supports SSES evaluations and informs hydraulic modeling. - Exploring strategies for enhancing O&M activities at pump stations and wet weather facilities. - Gaining insights by integrating data into asset management and maintenance workflows.

Zachary Monge, *Jacobs* **zachary.monge@jacobs.com**

3:30pm: How to Sweat the Small Stuff: A Risk Approach for Rehabilitating Small Diameter Sewers*

For a large system like DC Water's, CIP planning cannot focus solely on rehabilitating the highest-risk assets, as these typically include only large diameter sewers. Smaller, local sewers-which directly serve customers and can have a significant impact on individual communities when they fail-must also be addressed. To support DC Water's small-diameter sewer rehabilitation goals, a risk-based prioritization process was developed specifically for local sewers (less than 60 inches in diameter). This process incorporates defect observations, prioritization polygons, and equity scores.

Emily Keller, *Carollo Engineers* **ekeller@carollo.com**

4:00pm: What goes first? A Prioritization Approach for Very Large Sewers*

DC Water aims to rehabilitate 12 miles of large sewers annually but faces budget constraints and a high volume of severely graded (4 and 5) pipes. To manage over 100 miles of inspection data, they created a decision tree to prioritize assets for rehabilitation, focusing on defect types and their clustering. The tree identifies severe defects that necessitate immediate rehabilitation. For less severe defects, the average rate of occurrence determines the need for rehabilitation. This approach emphasizes structural defects with grades 3, 4, and 5, along with select operational and maintenance (O&M) defects.

Laura Khouvilay, *Carollo Engineers* **lkhouvilay@carollo.com**

Session 38: NYCDEP Cloudburst - When it Rains, it Pours

Water: 0.0 ATC **Wastewater: 0 RTC** **Engineer: 2 PDH**

1:30pm: Flood Resilience Through Cloudburst Design: Layered Drainage Solutions for East New York

NYCDEP's Cloudburst Management Program is piloting innovative, full-scale solutions to manage extreme rainfall events in vulnerable neighborhoods. This presentation will highlight the East New York Cloudburst Hub, where layered strategies-including porous pavement, subsurface storage, and public realm enhancements-were implemented in partnership with multiple city agencies and shaped by extensive community input. The session will share site specific design challenges and opportunities at the East NY cloudburst project area, as well as a brief introduction on the cloudburst planning that went into selection of various project areas.

Roopesh Joshi, *NYC DEP* **rjoshi@dep.nyc.gov**

Tony Li, *NYC DEP* **tli@dep.nyc.gov**

Ray Hyland, *HDR* **ray.hyland@hdrinc.com**

Barbara Barnes, *HDR* **barbara.barnes@hdrinc.com**

2:00pm: NYCDEP Cloudburst: Parkchester & Morris Park - Integrating Stakeholder Feedback while Maximizing Stormwater Managed

The NYC Department of Environmental Protection (NYCDEP) is addressing flooding in Parkchester and Morris Park, Bronx. The project combines porous pavement panels, cloudburst pipes, catch basins, and subsurface storage at two NYC parks (Caserta Playground, Castle Hill Playground), and one school (P.S. 083 Donald Hertz) to manage the cloudburst storm while enhancing public spaces. The design was shaped by numerous constraints. Extensive coordination with city agencies and community stakeholders ensured balanced flood mitigation, constructability, durability, and amenity improvements.

Tony Li, *NYC DEP* **tli@dep.nyc.gov**

Roopesh Joshi, *NYC DEP* **rjoshi@dep.nyc.gov**

Patrick Parault, *AKRF* **Pparault@akrf.com**

David Stahl, *AKRF* **dstahl@akrf.com**

3:30pm: Corona Cloudburst Hub: An Example of Integrated Design

Due to intense rainfall events becoming more frequent, disruptive, and damaging in New York City (NYC), the New York City Department of Environmental Protection (NYC DEP) is implementing Cloudburst projects which propose neighborhood-scale stormwater management to mitigate local effects of heavy rainfall. However, implementing a project throughout an entire neighborhood requires frequent and consistent coordination with its various stakeholders. This presentation will focus on engagement efforts with NYC agencies, utility providers, property managers, and the public, as well as how the collaboration shaped the design for the Cloudburst project in Corona, Queens.

Adriana Kocovic, *NYC DEP* **akocovic@dep.nyc.gov**

Roopesh Joshi, *NYC DEP* **rjoshi@dep.nyc.gov**

Dahlia Thompson, *Hazen and Sawyer* **dthompson@hazenandsawyer.com**

Claire Moriarty, *Arcadis* **clare.moriarty@arcadis.com**

4:00pm: NYCDEP Cloudburst: Designing for Deluge - Cloudburst Strategy, Challenges, and Innovations in Kissena, Queens

The NYC Department of Environmental Protection (NYCDEP) is implementing a Cloudburst Program employing adaptive stormwater management strategies in flood-prone communities. This presentation will discuss constraints and challenges encountered while designing a stormwater management infrastructure project for Kissena, Queens to mitigate the impacts of the intense rainfall events. Key measures include precast porous concrete panels in the right of way and subsurface storage in the redesigned Kissena Corridor Park. This presentation will focus on the complex drainage characteristics of the project area that shaped the final design, and the integration of stormwater management measures into an improved public realm.

Andres Garcia, *NYC DEP* **afgarcia@dep.nyc.gov**

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Session 39: Resiliency Through Emergency Preparedness

Water: 0.0 ATC Wastewater: 1 RTC* Engineer: 2 PDH

1:30pm: Next-Level Floodwall: Building Up a Coastal WWTP's Resilience

Faced with flooding vulnerabilities exacerbated by climate change, OC San is implementing the $26M South Perimeter Wall and Soil Improvements project at the 150 mgd Treatment Plant No. 2 in Huntington Beach, California. This investment will also pave the way for construction of a new $400M Digester Facility and other future plant improvements, which will be protected behind the new wall. Attendees will gain insights into strategies for effectively identifying and mitigating climate vulnerabilities, engaging a broad set of stakeholders and disciplines to improve resilience outcomes, and lessons learned from this project as a case study.

Nathan Chase, *Brown and Caldwell* **nchase@brwncald.com**

2:00pm: Modernizing Emergency Management and Security in the Wastewater Sector*

Wastewater utilities face growing risks from climate change, aging infrastructure, cyber threats, and security concerns. Even without AWIA mandates, many are adopting AWIA-style risk assessments, continuity planning, and operational readiness to safeguard essential services. This session presents a practical framework for modernizing emergency management and security programs in the wastewater sector, highlighting the use of the AWWA J100 methodology to identify vulnerabilities, prioritize mitigations, and build resilience. Drawing on utility case studies, including organizational change at NYCDEP, participants will gain strategies to embed EM into operations, enhance coordination, and demonstrate the value of preparedness.

Shawn Corrigan, *Carollo Engineers* **scorrigan@carollo.com**

3:30pm: Planning for The Future: Coastal Resilience Modeling of Vulnerabilities

Vital assets and infrastructure are often located in coastal and tidally influenced areas. Relative sea level rise (RSLR) and more frequent and intense storms are causing many resource managers to seek an understanding of these near-term and long-term risks. This presentation discusses risks that managers face through a case study to show how they can understand, plan for, and budget for these risks. It also discusses the technical aspects of a coastal resilience study at a vulnerable site, including site characterization, modeling, design considerations, and steps toward a plan for future funding needs.

Nick Brown, *HDR* **nick.brown@hdrinc.com**

4:00pm: Urban Flood Defense Pump Station – A NYC Case Study in Mitigating Flooding Behind a Coastal Flood Barrier System*

Resilience projects across New York City often include emergency combined sewer overflow pump stations to address interior flooding during severe weather conditions. This presentation will outline the critical elements to be considered when initiating the conceptual design of an emergency pump station. Our analyses will draw on lessons-learned developed from recent projects in New York City and expand upon key design considerations, including variable hydraulic conditions, backup power generation, screening, and pump maintenance.

Catherine Moskos, *Arcadis* **catherine.moskos@arcadis.com**

Rodrigo Pena-Lang, *Arcadis* **Rodrigo.PenaLang@arcadis.com**

Session 40: Residuals & Biosolids - Emerging Technology

Water: 0.0 ATC Wastewater: 2 RTC Engineer: 2 PDH

1:30pm: Thickening 101: Rethinking Sludge for a Cleaner NYC

Wastewater sludge thickening is essential for optimizing treatment and reducing operational costs at NYC Wastewater Resource Recovery Facilities. While many facilities practice combined sludge gravity thickening, separating primary sludge (PS) and waste activated sludge (WAS) has been shown to enhance digester performance and reduce sludge volume. To support future/concurrent thickening upgrades, DEP created a Design Guidance Manual for separate thickening using gravity belt thickeners (GBTs) for WAS and gravity thickeners for PS. This presentation will provide an overview of how separate thickening, GBTs, and DEP's Design Guidance Manual can standardize thickening designs and support NYC's sustainability goals.

Karen Copeland, *Hazen and Sawyer* **kcopeland@hazenandsawyer.com**

Kristen Wainwright, *Hazen and Sawyer* **kwainwright@hazenandsawyer.com**

Giacomo de Falco, *NYC DEP* **gdefalco@dep.nyc.gov**

2:00pm: Siloxanes in the Producer Gas from the Pyrolysis of Sewage Sludge

Pyrolysis and gasification are employed to process the sludge and combust the producer gas in a thermal oxidizer and recover the thermal energy for drying of the sludge prior to the thermochemical process. However, presence of siloxanes in the producer gas causes problems for the thermal oxidizer, resulting in excessive time offline for the process. This presentation will discuss these challenges and a potential solution to reduce downtime to acceptable levels.

Philip Pedros, *Mott MacDonald* **philip.pedros@mottmac.com**

3:30pm: A Case Study in Improving Anaerobic Digestion Performance by Utilizing Recuperative Thickening

When the Chemung County Sewer Districts (CCSD) needed to consolidate two wastewater treatment facilities into one of the existing facilities, a significant capital investment into the anaerobic digester system treating the primary sludge was expected. CCSD collaborated with Arcadis and was able to save significantly on capital costs by implementing the recuperative thickening process in the primary sludge treatment process.

Katherine Gardner, *Arcadis* **katherine.gardner2@arcadis.com**

4:00pm: Pilot-to-Full-Scale Demonstration of Advanced Sludge Thickening and Destruction Technologies at Linda County Water District WRRF

This presentation will summarize California Energy Commission Project EPC-23-013, which includes three pilot- to full-scale demonstration systems that will be installed and operated at the Linda County Water District WRRF in Olivehurst, California, over a 12–24-month evaluation period. The demonstration will assess treatment performance and energy efficiency across a range of sludge feedstocks, including primary sludge, APT solids, and waste activated sludge (WAS). The scope of technology evaluation includes the following two thickening processes (suspended air flotation and biosolids filtration thickening) and one destruction process (Ultra-Energy Efficient Supercritical Water Oxidation from Beyond the Dome.

Terry Goss, *AECOM* **terry.goss@aecom.com**

Ganesh Rajagopalan, *AECOM* **ganesh.rajagopalan@aecom.com**

Derya Dursun, *Caliskaner Water Technologies* **derya@cwatertech.com**

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