NYWEA

2024 Annual Meeting

NYWEA 96

Register online: https://whova.com/portal/registration/nywea_202402/

PROGRAM PREVIEW

[SUBJECT TO CHANGE]

TECHNICAL SESSIONS

NYC Marriott Marquis, February 5-7

NEW THIS YEAR!

- Monday Morning Mini-Sessions
- Operator Lounge

wef Member Association

New York's Largest Water Quality Technical Conference & Exhibition!

WATER'S WORTH IT

96th Annual Meeting Schedule-at-a-Glance

Sunday, February 4

10:00 am–5:00 pm	**Registration**—5th Floor
Noon–5:00 pm	**Exhibit Hall Set Up**
9:00 am–10:30 am	**Executive Committee Meeting**
Noon–3:30 pm	**Board of DirectorsMeeting**

Monday, February 5

8:00 am–5 pm	**Registration**—5th Floor
8:30 am–10:30 am	**Opening Session**— Marquis Ballroom, 9th Floor
10:30 am–6:30 pm	**Exhibit Hall Open**
10:45 am	**Exhibit Hall Ribbon Cutting**
11:00 am–1:30 pm	**Water Ambassador's Brunch** President's Suite, 45th Floor

11:00 am–12:00 pm

NEW! Morning Technical Mini-Sessions

1. **Planning**—Odets, 4th Floor
2. **Water Reclamation 1**—Marquis C, 9th Floor
3. **Facility Operation**—Marquis A & B, 9th Floor
4. **Design Build**—Ziegfeld, 4th Floor
5. **Pre-Treatment**—Wilder, 4th Floor

12:00 pm–1:30 pm Lunch Break

12:00 pm–1:30 pm New Member Lunch - Julliard

1:30 pm

Afternoon Specialty Sessions

7. **Pre-Treatment Panel**—Marquis C, 9th Floor
11. **Mobile Session**

1:30 pm–4:30 pm (Break from 2:30 pm–3:30 pm)

Afternoon Technical Sessions

6. **Residuals / Biosolids 1**—Odets, 4th Floor
8. **Resource Recovery**—Marquis A & B, 9th Floor
9. **Resiliency 1**—Ziegfeld, 4th Floor
10. **Utility Management**—Cantor / Jolson, 9th Floor
12. **Research and Innovation**—Wilder, 4th Floor

Monday, February 5 (continued)

2:30 pm–3:30 pm	**Women of Water Networking**—5th Floor Broadhurst
4:00 pm–6:00 pm	**Exhibitor Reception**

Tuesday, February 6

8:00 am–4:30 pm	**Registration**—5th Floor
8:30 am–4:15 pm	**Exhibit Area Open**

9:00 am

Morning Specialty Sessions

13. **Emerging Leaders Training**—Marquis A&B, 9th Floor
15. **Operators Forum**—Ziegfeld, 4th Floor

9:00 am–Noon (Break from 10:00 am–11:00 am)

Morning Technical Sessions

14. **Collection Systems**—Odets, 4th Floor
16. **Design Build 2**—Cantor / Jolson, 9th Floor
17. **Sustainability**—Marquis C, 9th Floor
18. **Water Reclamation 2**—O'Neill, 4th Floor
19. **Emerging Contaminants**—Wilder, 4th Floor

12:00 pm–1:30 pm Lunch - Exhibit Hall

12:00 pm–1:30 pm Student Lunch - Imperial / Broadhurst

1:30 pm

Afternoon Specialty Sessions

21. **Challenges to Successful Projects—Case Studies**—Odets, 4th Floor
26. **University Forum**—Imperial / Broadhurst 5th Floor

1:30 pm–4:30 pm (Break from 2:30 pm–3:30 pm)

Afternoon Technical Sessions

20. **Regulatory**—Ziegfeld, 4th Floor
22. **Resiliency 2**—Cantor / Jolson, 9th Floor
23. **Stormwater Management / Green Infrastructure**—Marquis A & B, 9th Floor
24. **CSO / Tunnel Projects**—O'Neill, 4th Floor
25. **Residuals / Biosolids 2**—Marquis C, 4th Floor

2:30 pm–3:30 pm	**Utility Executive Roundtable** 4th Floor, Brecht
4:30pm–6:30 pm	**YP Reception**—9th Floor Upper Terrace Promenade

Wednesday, February 7

8:30 am–1:00 pm **Registration** - 9th Floor

9:00 am
Morning Specialty Session
30. Humanitarian Assistance—Harlem, 7th Floor

9:00 am–11:30 am (Break from 10:00 am–10:30 am)
Morning Technical Sessions
27. PFAS—Odets, 4th Floor
28. CSO / SSO / Wet Weather—Cantor / Jolson, 9th Floor
29. Equity and Inclusion in the Clean Water Business—Soho / Herald, 7th Floor
31. Energy Conservation & Generation—Wilder, 4th Floor
32. Utility of the Future—Ziegfeld, 4th Floor

11:00 am–12:00 pm SSSS Meeting

12:00 pm–1:30 pm Lunch Break

12:00 pm–1:30 pm Awards Ceremony—Registration required

1:30 pm–4:00 pm (Break from 2:30 pm–3:00 pm)
Afternoon Technical Sessions
33. Residuals / Biosolids 3—Soho / Gramercy / Holmstead, 7th Floor
34. Water Reclamation 3—Cantor / Jolson, 9th Floor
35. A Digital Focus in the Water World—Odets, 4th Floor
36. Government Affairs & Public Outreach—Soho / Herald, 7th Floor
37. Asset Management—Ziegfeld, 4th Floor

4:30 pm 96th Annual Meeting Adjourns

NYWEA
LEADING THE WAY IN WATER QUALITY MANAGEMENT

THANK YOU FOR ATTENDING!

NYWEA Executive Office
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nywea.org

Important Information

REGISTRATION INFORMATION

Registration area will be located on the 5th Floor outside the Westside Ballroom, except on Wednesday. *Wednesday registration is on the 9th Floor.*

THE REGISTRATION DESK HOURS

Sunday, Feb. 4	10:00 am–5:00 pm (5th Floor)
Monday, Feb. 5	8:00 am–5:00 pm (5th Floor)
Tuesday, Feb. 6	8:00 am–4:30 pm (5th Floor)
Wednesday, Feb. 7	8:30 am–1:00 pm (9th Floor)

EXHIBIT INFORMATION

A listing of Exhibitors will be added when complete. Interactive map on the Whova app.

EXHIBIT HOURS

Monday, February 5
10:30 am–6:30 pm Exhibition Open
10:45 am Opening Ceremony—Ribbon Cutting
4:00 pm–6:00 pm Exhibitor Reception
Exhibit Hall closes 6:30 pm (after Reception)

Tuesday, February 6
8:30 am–4:15 pm Exhibition Open

MEETING ROOM LOCATIONS

4th Floor
Brecht
Odets
Gilbert
O'Neill
Hart
Wilder
Ziegfeld

5th Floor
Westside Ballroom
Alvin
Imperial
Belasco
Julliard
Booth
Edison
Broadhurst
Lyceum

7th Floor
Astor Ballroom
Gramercy
Chelsea/Gotham
Harlem
Columbia
Olmstead
Duffy
Empire/Hudson
Soho/Herald

ALL particpants MUST register. Badges are required for entry into all functions.

9th Floor
Barrymore
Cantor/Jolson
Marquis Ballroom
Salon A, B, C
Upper Terrace/
Promenade

HOTEL INFORMATION

Restaurants
Broadway Lounge, 8th Floor
La Petite Chef, 47th Floor
Revel & Rye, 8th Floor

Guest Response
Dial 55

Business Center - 7th Floor
Dial 6641
New York City
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1535 Broadway
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96th Annual Meeting

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Monday
February 5

Opening & 12 Technical Sessions

NEW!
Morning Mini-Sessions 1-5

Tuesday
February 6

14 Technical Sessions

Wednesday
February 7

11 Technical Sessions

2024 Annual Meeting App

Join us on our official event app!

We're using Whova as our official event app. Join our event app to access:

- Event announcements
- Personalized agenda, session details
- Speaker & attendee profiles
- Networking, meet-ups, messages
- Event documents
- Faster check-in

How to join:

1. Scan the QR code and download Whova from the App Store or Google Play.
2. Sign in or create an account with the email you registered with.

Having trouble joining? Search for our event and enter the invitation code: nywea2024am

96th Annual Meeting Schedule

Monday, February 5

Opening Session (Marquis Ballroom, 9th Floor)

8:30 am Coffee and Breakfast Sandwiches
8:45 am Convene, Executive Director Khristopher A. Dodson
9:00 am Welcome & Opening Remarks, President Donna Grudier
9:15 am WEF Representative Steve Sanders
9:30 am OPERATOR PROGRAM TITLE TBD
10:00 am PROGRAM TITLE TBD
10:30 am Adjourn

10:45 am **Ribbon Cutting** (5th Floor Ballroom)

Session 1 — Planning Odets, 4th Floor

CONTACT HOURS TBD
MODERATORS **TBD**

11:00 am **1.1**
Parks & Recreation Facilities as a Stormwater Management Tool
Tom Shay, Woodard & Curran
Parks and recreation facilities are among the most prized community assets, offering access to the outdoors, creating connections between people, and supporting community wellness. They also hold great potential to support floodplain and stormwater management goals that often go untapped. This presentation will offer specific approaches that have improved community flood mitigation and stormwater quality through park improvements or redevelopment. It will look at missed opportunities where park projects did not consider infrastructure opportunities and how to avoid these mistakes. Finally, it will offer strategies to navigate planning, permitting, design, and implementation challenges that may arise as communities work to align park and stormwater and floodplain management efforts.

11:30 am **1.2**
Integrating Climate Change Impacts with Wet Weather Management and Capital Improvement Planning
Nathan Foged, Brown and Caldwell
Stormwater and wastewater utilities are under pressure to provide reliable services while coping with climate change impacts. Current engineering methods risk underestimating capacity needs or oversizing infrastructure. In response, the Water Research Foundation is creating a Climate-Resilient Wet Weather Planning Manual to help utilities make confident capital planning decisions in the face of climate uncertainty. This presentation showcases early findings, including a utility survey, key sources of climate information, and a preview of the manual.

Session 2 — Water Reclamation 1 Marquis C, 9th Floor

CONTACT HOURS TBD
MODERATORS **TBD**

11:00 am **2.1**
Smarter Sensing for Better Data: Biological Activity as Direct Indicator of Plant Performance
Mack Pardy, SENTRY: Water Monitoring and Control; Jeff Heiner, Dave Heiner Associates, Inc.
The future of water treatment relies on data-driven approaches such as AI, soft sensors, automated plants, and digital twins. However, many facilities lack reliable data due to instrument limitations. Bio-electrode sensing (BES) technology offers real-time monitoring by using biofilm that reacts to environmental changes, providing insights into organic overloads, toxic events, and treatment processes. BES is placed in influent channels, where other sensors struggle due to biofouling. This low-maintenance technology measures biofilm activity, indicating the plant's ability to treat incoming wastewater and detect acute toxins. It empowers operators to respond promptly to influent changes and identify trends, which can save time, reduce costs, and enhance treatment stability.

11:30 am **2.2**
The BNR Controls & Instrumentation Selection Adventure
Sue Guswa, Woodard & Curran
There is no centralized resource detailing the various biological nutrient removal (BNR) control systems, the commercially-available sensors and analyzers, their performance and capabilities, and the associated O&M procedures and costs. The Water Research Foundation developed a project to fill the knowledge gap in the understanding of online, instrument-driven BNR control schemes and their reliability and performance with decision support tools for operators, engineers and utility directors. This session will highlight outcomes of the WRF project and provide the audience with tools they can use to evaluate the applicability of BNR control systems and associated sensors and analyzers at their water resource recovery facilities.

MONDAY

Session 3 Facility Operation Marquis A & B, 9th Floor

CONTACT HOURS TBD

MODERATORS **TBD**

11:00 am
3.1

Implementing Operational Solutions for Severe Sudden Bulking Issues
Lance Salerno, Brown and Caldwell
Two small wastewater plants in Northern California were experiencing sudden and severe bulking issues. This paper will examine the issues and different solutions that were successfully implemented for each. A perspective will be given regarding how the operations teams from each facility came together to evaluate the situation, develop options in a progressive manner and ultimately stabilized operations using two different approaches that were readily implemented by plant operations staff.

11:30 am
3.2

Steps to Ensure Successful Startup of Large Pump Stations
Vito Cimino, Vincent Beach, Stantec
Starting up any facility in the water/wastewater world can be a nervous and exciting time. In cases in which these facilities are a bit unique in our industry, successful startup can be a little more difficult to achieve unless sufficient planning has taken place. This presentation will discuss one of those unique cases in which we want to highlight some of the proactive steps that need to be undertaken in order to successfully start large pump stations. These steps have been developed over the course of many successful startups of large pump station including some that had more difficult startups.

Session 4 Design Build 1 Ziegfeld, 4th Floor

CONTACT HOURS TBD

MODERATORS **TBD**

11:00 am
4.1

NYCDEP Design-Build Program—A Collaborative Approach
Lina Posso, Janine Witko, Carollo Engineers
With NYCDEP's design-build project delivery method for capital projects currently underway, this presentation will provide an overview of the program, discussing the agency's transition into the collaborative delivery method, and describe anticipated and future goals of the program.

11:30 am
4.2

Tunnel Vision: LEED & Envision Sustainability Implementation for a Complex Design Build Infrastructure Project
Howard Lusk, Jacobs
The project is a $454 million design build combined sewer overflow mitigation deep tunnel and pump station in Alexandria Virginia. This presentation will share the process and collaborations for implementing both LEED and Envision sustainability rating systems. Discussion includes the roles and perspectives of the Owner, Owner's Technical Advisor, D-B Designer and D-B Contractor.

Session 5 Pre-Treatment Wilder, 4th Floor

CONTACT HOURS TBD

MODERATORS **TBD**

11:00 am (1 Hour)
5

Embracing Chip Fabs in a Post CHIPS Act Economy
John Rydzewski, Carollo Engineers
The CHIPS Act is spurring domestic investment in semiconductor manufacturing, and more municipalities are finding themselves on the receiving end of either a brand-new fab campus or pending fab expansion. Although welcome from an economic development standpoint, a new fab project could be a challenging proposition. Some of these challenges are unique. This talk will cover those unique challenges, and suggestions and strategies to navigate the challenges of semiconductor manufacturing to ensure a long-term, mutually beneficial relationship for both the municipality and the fab.

MONDAY

Session 6 Residuals / Biosolids 1 Odets, 4th Floor

CONTACT HOURS TBD

MODERATORS **TBD**

1:30 pm **6.1**

Anaerobic Digestion with Nutrient Control—What if your Digesters Were the Sidestream?

Matthew Williams, Thermal Process Systems

Traditional Anaerobic Digestion processes can create undesirable challenges at WWRFs. By adding an Acid Phase Digester before and an Aerobic Reactor after the Anaerobic Digester, some significant improvements in plant, digester and dewatering performance can be realized. These proven processes are well-established and employed (independently) at several facilities but, when used in concert with a recycle loop, the solids process effectively becomes sidestream nutrient removal. Managing these nutrients in solids processes that are optimized for the desired biology has other side-effects including decreased H2S & struvite production, reduced odor and more robust digester performance.

2:00 pm **6.2**

Anaerobic Digestor Waste Stream Addition and C-digestion Evaluation

Jeff Tudini, AECOM; Alex Emmerson, Buffalo Sewer Authority

AECOM performed a study associated with evaluating the BSA's anaerobic digesters to determine their ability to treat co-digestion feedstocks along with determining the optimal means of receiving, processing, and treating the additional materials. The evaluation produced a successful feasibility analysis that gave the BSA a roadmap for accepting and treating high strength food waste. The feasibility study provided a range of incremental acceptance of high strength food waste from 100,000 to 400,000 lbs. VSS/day along with the necessary process considerations/modifications and cost estimates for successful treatment and management at each quantity.

2:30 pm **Coffee Break in Exhibit Hall**

3:30 pm **6.3**

Using Thermal Hydrolysis to Optimize Options for Biogas Use from Municipal Digestion—Case-study from the UK

Bill Barber, Cambi, Inc.

This paper talks about Severn Trent's largest municipal digestion plant at Minworth, UK. In response to government incentives, the plant had 9MWe of co-gen installed. The plant used 2/3rds of the energy with the rest exported. However, in later years, new incentives made the production of biomethane more financially attractive. Therefore, the utility installed a gas-to-grid plant to take the energy which was previously being exported. This enabled spare capacity in the existing co-gen plant. Following a technological evaluation, thermal hydrolysis was installed to increase both biogas production and loading rate to enable sludge from other sites to be digested at Minworth. Subsequently, gas production increased to a point where a second biomethane plant is being installed.

4:00 pm **6.4**

What Full-on Organics Digestion Looks Like

Charles Alix, Stantec

The City of Edmonton has always been on the forefront of waste reuse through their Waste Management Centre. The city has an aggressive waste reuse target and wanted to improve on energy from organics. The talk will review the planning and development process for multiple organics processing facilities included existing fand alterative facilities and technologies, mass balance various organics types, impacts of collection methods and acceptable materials in SSO stream, products and goals of operations, regulatory challenges to end product use and energy goals. Stantec performed preliminary studies, risk assessments and business case and acted as Owners Engineer in review of procurement method and developing the documents and proponent review for the selected P3 delivery method.

Session 7 Pre-Treatment Panel Marquis C, 9th Floor

1:30 pm **TBD**

MONDAY

Session 8 Resource Recovery Marquis A & B, 9th Floor

CONTACT HOURS TBD

MODERATORS **TBD**

1:30 pm **8.1**

From Trash to Treasure: Insights from End-to-End Traceability Across the Organic Waste-to-Energy Supply Chain in New York City

Brendan Hannon, New York City Department of Environmental Protection; Dani Charles, Veriflux; Devin Dam, Waste Management

New York City Department of Environmental Protection (NYCDEP), Waste Management of New York (WM) and Veriflux, an EPA funded traceability platform collaborated on a pilot to demonstrate the feasibility of tracing feedstocks from collection to energy production along the waste-to-energy supply chain. The presentation reviews pilot methodology and highlights potential applications of the technology from enforcement to a data driven foundation for renewable fuel transactions.

2:00 pm **8.2**

A Triple Bottom Line Partnership: Reusing Spent Aircraft Deicing Fluid from LaGuardia Terminal B as Supplemental Carbon at Bowery Bay WRRF

Sarah Hathaway, Stantec; Sean Hulbert, NYCDEP

LaGuardia Airport Terminal B's recent upgrades included a new deicing facility with a system to capture spent aircraft deicing fluid. Looking for a way to dispose of the high COD wastewater economically and with minimal impact to the environment and community, LaGuardia Gateway Partners (LGP) worked with NYCDEP to establish a framework for LGP to discharge the spent deicing fluid to DEP's sewer. When Bowery Bay WRRF receives spent deicing fluid, it allows the operators to reduce the supplemental carbon added to the BNR process. Plant modeling, bioassays, and open communication were necessary to establish the design criteria for the deicing fluid recovery system. The resulting partnership is better for both DEP's and LGP's bottom line, for the planet, and for the surrounding community.

2:30 pm **Coffee Break in Exhibit Hall**

3:30 pm **8.3**

Greenfield WRRF Delivers Complete Resource Recovery & Community Resilience

Margaret Laub, Anaergia

A case study in greenfield 8 MGD wastewater resource recovery facility (WRRF) designed to provide complete resource recovery, beyond the scope of traditional wastewater treatment. Ultimately, all waste - including wastewater and locally generated, landfill-diverted food waste - entering the plant is turned into beneficial products supporting facility operations and the broader community, including clean recycled water for groundwater recharge, energy, and fertilizer.

4:00 pm **8.4**

Climate Smart Electrochemical Membrane (ECM) Transforms Nitrate into Enhanced Ammonia-Based Fertilizer or Fuel

Ed Weinberg, ESSRE Consulting, Inc.; Jianan Gao, New Jersey Institute of Technology

A tubular flow-through design provides easy implementation of an electrocatalytic membrane (EM) cell that electrochemically reduces wastewater Nitrate (N-NO3) into Ammonia gas or Ammonium Nitrogen (N-NH4). Using appropriate electrolytes in the cathodic chamber results in N-recovered, liquid (L) N-NH4 Salt fertilizer products for reuse - Ammonium Sulfate (LAS); Ammonium Nitrate (LAN); Mono- or Di-Ammonium Phosphate (LMAP, LDAP). Liquified ammonia can be supplied to an alkaline fuel cell for zero-carbon backup power, which would replace polluting diesel fired backup generators. Beachhead targets for the novel technology include landfill leachate, fertilizer and ammunitions/ explosives production plants, mining tailings, coal-fired power plant wastewater, and other nitrate-rich wastewaters.

Session 9 Resiliency 1 Ziegfeld, 4th Floor

CONTACT HOURS TBD

MODERATORS **TBD**

1:30 pm **9.1**

Making Tenean Beach Climate Change Ready

Amanda Retta, Tetra Tech

Tenean Beach in Dorchester, MA was identified as a catalytic project in the Climate Ready Boston Coastal Resilience Solutions. This project aimed at enhancing resiliency in the Tenean Beach area, with a focus on flood risk reduction for inland neighborhoods, preservation of waterfront access, ecological conservation, and the improvement of stormwater infrastructure. The preliminary goals of the project include flood risk reduction, preservation of waterfront access, ecological preservation, and stormwater infrastructure improvement. This project focuses on the significance of adopting a holistic approach to resiliency that not only mitigates flood risk but also enhances the quality of life for the Tenean Beach community.

2:00 pm
9.2

Climate Resilience and GHG Mitigation Planning for WSSC Water
Laurens Van der Tak, Jacobs
WSSC Water, a water and wastewater utility located in suburban Maryland outside Washington, D.C., recently completed a long-term planning project to prepare for future climate change. This case study will present the methodology and results of the vulnerability assessment and flood adaptation analysis for WSSC Water facilities. The project also includes annual updates to the WSSC greenhouse gas (GHG) inventory and Action Plan. The GHG Action Plan has been updated annually since 2012 and addresses organization-wide goals for reduction of GHG emissions.

2:30 pm

Coffee Break in Exhibit Hall

3:30 pm
9.3

Framework for a Watershed-Wide Climate Risk Assessment: Bronx River Intermunicipal Watershed Management Plan Update
Sri Rangarajan, Sophie Huang, Boomi Environmental
Boomi Environmental, on behalf of the Bronx River Alliance, has developed a Climate Resilience Strategy as part of ongoing efforts to mitigate the impacts of climate change on the already burdened Bronx River watershed. As an integral part of this process, the risk assessment helped to understand how climate change will impact communities' assets and public safety in the watershed and inform strategic planning efforts by the Westchester County municipalities and the Bronx Borough.

4:00 pm
9.4

A Challenging Urban Coastal Resiliency Project—Red Hook Brooklyn
Jake Oldenburger, Tetra Tech
The Red Hook Coastal Resiliency Project will be a critical step toward ensuring a more resilient Red Hook community in the face of future extreme weather and a changing climate. The Project is partly funded by FEMA's Hazard Mitigation Grant Program (HMGP) as such unique approaches to the design and benefits were developed to satisfy the program requirements. The location near one of the city main port facilities and large public housing developments held to an extensive stakeholder engagement process to shape the design. In addition, as Red Hook is one of the lowest lying areas in this area of Brooklyn, complex hydraulic modeling of the interior drainage was prepared to determine project benefits.

Session 10 Utility Management Cantor / Jolson, 9th Floor

CONTACT HOURS TBD

MODERATORS **TBD**

1:30 pm
10.1

Wayne County Takes Leadership Role in Utilizing Hydraulic Modeling to Consolidate Regional Wastewater Treatment for Three Upstate Communities
Ray Schofield, Collin Osmun, EDR
In 2017, Macedon, Marion, and the Village of Palmyra decided to merge their wastewater treatment facilities into a new plant due to long-term needs. This involved building 85,000 feet of pipes and three pump stations. EDR was chosen to design these stations using intricate modeling, including transient analysis. The presentation aims to share insights into this innovative approach of combining three wastewater plants into a single facility to meet the region's needs.

2:00 pm
10.2

Turning Biosolids into Jobs
Bob Wimmer, Navitas; Rick Kenealy, Town of Webster
The paper will review the approach to design and sizing of key elements of the treatment process to show how additional capacity can be achieved without overdesign of the facility and with flexibility in terms of how the process is operated. The use of Article 9, performance contracting, to provide flexibility to the town for selection of equipment and the make design changes quickly will also highlight how Webster is utilizing its WRRF to provide for economic development and enhance the financial position of the town. With the continuing pressure on landfills and biosolids between PFAS/PFOA regulations and landfill capacity issues, the town also incorporated the fertilizer potential and closing the loop of biosolids recycling.

2:30 pm

Coffee Break in Exhibit Hall

3:30 pm
10.3

Oneida County's SSO Mitigation Program Eliminates over 200 Million Gallons of Overflow Per Year
John Story, GHD; Karl Schrantz, Oneida County
Since 2011, Oneida County has been working to upgrade their collection system and double the capacity to comply with an Order on Consent to mitigate SSO discharges to the Mohawk River. The Order was successfully closed in 2022. This presentation will focus on the construction of a $300 million capital project to expand the WPCP, and a $50 million sewer rehabilitation program that has resulted in near elimination of SSO discharges.

MONDAY

4:00 pm
10.4

Reactive to Predictive Reliability Centered Maintenance
Steven Hutchings, Pam Elardo, Brown and Caldwell
The multitude of stressors faced by utilities today require advancing tools, methods, and practices to keep essential infrastructure in service that protect public health, the environment, and the ratepayer. Through the implementation of a structured maintenance and reliability program incorporating Reliability Centered Maintenance and optimized maintenance management practices, a utility can expect to realize a significant reduction in operating costs while increasing labor utilization of current operations and maintenance staff.

Session 11 Mobile Session

1:30 pm

TBD

Session 12 Research and Innovation Wilder, 4th Floor

CONTACT HOURS TBD

MODERATORS **TBD**

1:30 pm
12.1

The Importance of Anaerobic Zone: Which Factors Govern the Anaerobic Functionality in EBPR Process?
Mehran Andalib, Stantec
This work tends to focus on EBPR process design, both the conventional systems and innovative modifications to understand the operational challenges. It also emphasizes the available technologies to assess the significance of anaerobic mass fraction, hydrolysis and fermentation on metabolism, microbial pathways, and process design, operation, and optimization. This study also tends to look at sensitivity analysis of anaerobic zone mass fraction and hydrolysis/fermentation rate as one of the key aspects for anaerobic zone design and optimization.

2:00 pm
12.2

Evaluating Nitrogen Oxides Transformations at Low Dissolved Oxygen Concentrations
Jose Jimenez, Brown and Caldwell
Water Research Foundation is currently leading a study to investigate the impact of low dissolved oxygen activated sludge operation on the nitrogen oxides transformations at low DO concentrations. These systems are often referred to as simultaneous nitrification-denitrification (SND). Microbial community data coupled with biokinetics, and detailed process modeling facilitated an analysis of the fundamental mechanisms associated with SND and its interaction between biomass and intermediate nitrogen oxide species and readily biodegradable COD.

2:30 pm

Coffee Break in Exhibit Hall

3:30 pm
12.3

Techno-Economical Analysis of Various Process Intensification Technologies for Two Wastewater Treatment Plants Upgrades
Danelle Bishoff, Stantec
In wastewater, process intensification is getting the most out of a facility by increasing product mass transfer and throughput to improve the performance of an existing process, improve the design of a new facility, and unlock the process capacity. This presentation reviews different intensified secondary treatment technologies and the evaluation approach in selecting an intensified secondary treatment process at two large-scale WWTP in different operational climates.

4:00 pm
12.4

Design and Operational Lessons Learned from Low DO and Suboxic Biological Nutrient Removal in the United States
Michelle Young, Carollo Engineers
As part of a Department of Energy project, we gained insight in low DO/suboxic BNR (SBNR) operations through an industry survey and data analysis as well as workshops with researchers, utilities, consultants and discipline engineers. This presentation will discuss highlights of our survey and workshops, including: current "low DO" practices and known configurations in the U.S., differences between low DO and SBNR operation, performance of existing low DO/SBNR facilities, and risks and associated mitigation strategies for full-scale implementation in plug flow systems.

MONDAY END

Tuesday, February 6

Session 13 Emerging Leaders Development Training Marquis A & B, 9th Floor

9:00 am TBD

Sara Igielski, Carollo Engineers; Taylor Brown, JM Davidson Engineering
This training will teach participants about the following leadership topics in a collaborative, small-group exercise led by an industry professional: emotional intelligence, professional credibility, ability to inspire, and communication. Participants will be divided into groups and spend 30 minutes with each topic facilitator. Participants will be provided an Action Plan handout to use and complete during the training. Participants will come away with a personalized approach to further develop their leadership skills.

Session 14 Collection Systems Odets, 4th Floor

CONTACT HOURS TBD

MODERATORS **TBD**

9:00 am **Validating Sediment Predictions in Major Collection Systems: Insights from the London Tideway Tunnels**
14.1 Joss Plant, Jacobs
A comprehensive assessment of sediment performance in London's current and future storm tunnel operations was conducted. This involved evaluating analytical methods, models, and real-world sediment data. Refinement of modeling led to enhanced validation and understanding of prediction strengths and limitations. These insights facilitated enhanced projections for the tunnel system's future operation and system-level sediment behavior forecasts.

9:30 am **Chautauqua Lake West Side Sewer Extension**
14.2 Paul McGarvey, GHD; Tom Walsh, Chautauqua County
Chautauqua Lake was officially designated as an impaired waterbody due to phosphorus levels exceeding guidance values. The West Side Sewer Extension program was established to replace failing and aged septic systems with a low-pressure public sewer system, over 500 grinder stations, multiple booster stations, 4 traditional pump stations, and nearly 150,000 linear feet of pipe. Phase 1 construction was substantially complete in the summer of 2023 and design of Phase 2 is underway.

10:00 am **Coffee Break in Exhibit Hall**

11:00 am **Down with Nitrogen! The Town of North Castle WWTP Upgrade**
14.3 Charles Prior, EDR
The Town of North Castle Sewer District No. 2 operates a WWTP in Westchester County. Regulatory agencies mandated a significant reduction in nitrogen for the facility due to its contribution to the Long Island Sound. To comply with the new requirements and improve effluent water quality, the Town required an innovative approach, involving new GAC units and sludge thickening technology. This presentation will discuss navigating this approach for improved long-term performance.

11:30 am **Perpetual Pumping Station Rehabilitation**
14.4 Casey Cowan, GHD; Richard Roll, Niagara Falls Water Board
The enduring need for rehabilitation of the conveyance systems entrusted to our care will surpass our careers. This responsibility is evident in the continuing rehabilitation of the Gorge Pump Station, a principal component of the combined sewer collection system owned and operated by the Niagara Falls Water Board Work has recently been completed on the third major rehabilitation project of the 1977 pumping station built on the site of an original 1938 sewage treatment plant. This presentation will take you on a 45 year journey and speak to the lessons learned as the 19.5 mgd station progresses through changes from horizontal to vertical pumps, suboptimal inlet conditions, harsh pumping demands, excessive vibration issues, reliability challenges, and contractor bankruptcy.

Session 15 Operators Forum Ziegfeld, 4th Floor

9:00 am **TBD**

TUESDAY

Session 16 Design Build 2 Cantor / Jolson, 9th Floor

CONTACT HOURS TBD

MODERATORS **TBD**

9:00 am **16.1**

Integrated Team of Hundreds Deliver Waste to Energy Solution

Michael McWhirter, Stantec

Louisville Metropolitan Sewer District (MSD) needs a comprehensive solution at its Morris Forman Treatment Facility for 130 ton/day (average) of biosolids to reduce the mass for disposal, improve quality and implement renewable energy production. MSD benefits from a highly experienced operations and maintenance staff, a knowledgeable Owner's Advisor, a strong disadvantaged business community, commitment from executive leadership and a WIFIA grant. However, new technologies, the global pandemic, rapidly escalating costs, emergency plant operating conditions at the plant and a very tight site result in an uber complex project. MSD has used progressive design build to engage a team to delivery its vision. This presentation showcases MSD harnessing its staff, its advisors, the DB team, disadvantaged businesses, vendors and trade partners into an integrated team of hundreds. It covers 3D collaboration tools, coordination with ongoing projects, high value DBE engagement, value engineering solutions saving $40M+ and how planning for operations and financial return from the project is baked into the project delivery.

9:30 am **16.2**

Case Study—Driven Insights: Geotechnical Instrumentation and Data Management for Optimized Underground Water and Wastewater Infrastructure Construction in Urban Areas

Saeedeh Rezaei, Federico Bonaiuti, Entech Engineering

This study systematically addresses risks tied to urban tunneling, emphasizing the importance of instrumentation and monitoring. Focusing on urban dynamics, it provides insights into necessary measurements for densely populated areas, identifies data collection challenges, and proposes solutions, exemplified by real data from a large, combined sewer tunnel project. The study underscores the significance of comprehensive data presentation. In summary, it stresses a vital monitoring approach for urban tunneling, navigating infrastructure, instrumentation, and data intricacies, ensuring resilient and harmonious urban construction.

10:00 am **Coffee Break in Exhibit Hall**

11:00 am **16.3**

Alternative Delivery; The Journey of Two Large Solids Processing Projects Delivered Under Fixed Price Design-Build

Rudy Kilian, Carollo Engineers

The paper will present the journey of two large solids processing jobs delivered by Carollo Engineers, Inc. One; the Miami Dade Solids Thickening and Dewatering Improvements where Carollo was the design engineer for the DB team and the Kansas City Missouri THP and solids improvements project where Carollo was the Owner's Agent assisting the city procure DB teams.

11:30 am **16.4**

Pawtucket CSO Tunnel Design Build—From Risk Management to Design and Construction

Irwan Halim, AECOM

The Narragansett Bay Commission Phase III CSO Program includes construction of the 11,600-foot long, 30-foot ID, deep rock Pawtucket Tunnel in Rhode Island. This paper will provide an overview of the Design Build Project features and highlight some important design considerations including geologic condition and TBM design, deep shaft and tunnel segment designs. It will present project construction including TBM start-up, deep vertical shaft installations, SEM construction, and microtunneling for the longest adit.

Session 17 Sustainability Marquis C, 9th Floor

CONTACT HOURS TBD

MODERATORS **TBD**

9:00 am **17.1**

US Water Alliance 12 Utility GHG Reductions Cohort

Karri Ving, Brown and Caldwell

The US Water Alliance has launched a 10-City Utility Greenhouse Gas (GHG) Reductions Cohort to develop and model robust GHG reduction plans that will achieve financial resilience, help meet critical priorities in a changing world, and deliver on water equity goals along the way. Presenter will discuss why this cohort model works and how knowledge building, peer exchange, and strategy adoption have enabled these now 12 utilities to take the next steps, try new things, and reach for Net Zero GHG emissions.

TUESDAY

9:30 am
17.2

Breaking Down "Decarbonization" for the Water/Wastewater Sector
Melissa Harclerode, Megan Schlosser, CDM Smith
"Decarbonization" is a hot topic used by governmental representatives, public interest groups, customers, and industry. As a primary community stakeholder, municipalities and water utilities play an essential role in decarbonization to meet these sustainability plans. This presentation will breakdown "decarbonization" to help identify tangible and meaningful water and wastewater sector actions. These actions comprise of carbon emission reduction with a focus on energy conservation (renewable energy, operational footprint consolidation, energy efficiency/retro-commissioning, energy recovery and/or storage), low carbon fuels and consumables, and biogas recovery/use. Case study highlights of carbon reduction initiatives in practice to reinforce present day implementation will be presented.

10:00 am

Coffee Break in Exhibit Hall

11:00 am
17.3

Long Island Water Reuse Roadmap and Action Plan
Stephen Hadjiyane, Cameron Engineering; John Turner, Seatuck
Over the past half century, water quality in Long Island's groundwater aquifers (the sole source of drinking water) have steadily declined. Reuse of treatment plant effluent provides benefits to water quality and quantity. Surface water quality is improved by reducing nitrogen-laden water discharge into coastal waters. Water reuse addresses water quantity problems by reducing the need to pump "new water" from the aquifer. The Roadmap presents potential irrigation projects and a plan for implementation.

11:30 am
17.4

Leveraging Triple Bottom Line Analysis and Value of Water Indicator to Advance Sustainability and Water Stewardship
Rina Dalal, CDM Smith
This Texas facility case study will provide an overview of the sustainability assessment performed to inform facility level water resource supply planning. Values-of-water metric was applied to assess present and future water management practices of existing and alternative water sources, including a wastewater reuse alternative.

Session 18 Water Reclamation 2 O'Neill, 4th Floor

CONTACT HOURS TBD

MODERATORS **TBD**

9:00 am
18.1

Over 100,000 Diffusers Across 28 Basins: A Large WWTP Aeration Upgrade Story
Lindsey Busch, Carollo Engineers
This presentation will walk through the process of complex aeration design as well as the construction sequencing approach to the $74 million aeration upgrade at Milwaukee, Wisconsin's 300 mgd South Shore WRF. The aeration design included several iterations for the diffuser material selection and layout, diffuser shape, system pressure, and thoroughly investigated construction sequencing options. BioWin process modeling was used to establish oxygen distribution needs within the aeration basins at eighteen flow and loading conditions.

9:30 am
18.2

Quantifying the Impacts of Magnetite Ballast on Solids Flux and Secondary Clarifier Evaluation
Richard Liebhaber, Evoqua/Xylem
Remarkable capacity increases can be realized by the simple addition of a ballast. This presentation intends to compare settling tests results from several full-scale systems which have undergone ballast addition to improve settling and increase system capacity.

10:00 am

Coffee Break in Exhibit Hall

11:00 am
18.3

Clarifier Optimization
Todd Latchaw, Koester Associates
Not your great, great, grandfather's clarifier: clarifier optimization using sludge blanket filtration and online monitoring in real time to improve footprint capacity of 30% or more and reduce total effluent phosphorous without downstream filtration to 0.5 mg/l and less.

TUESDAY

11:30 am
18.4

Wash, Rinse and Repeat? Considerations for a Challenging Aeration Tank Rehabilitation
Erin Moore, Ryan Sanford, Tighe & Bond
Aeration upgrades happen all the time. New diffusers, efficient blowers, instrumentation upgrades and -Voila!- good to go. But not all upgrades are so simple. When the City of Kingston received new SPDES permit ammonia limits, they needed to modify their aeration process not only address the new limits, but also stop the peak flow sizing cycle, that left much to be desired during average flows. This presentation will discuss evaluation of sidestream versus mainstream ammonia treatment, blower sizing to avoid inadequate turn down and improvements to the aeration tank including high CSO flow flexibility and polyurea concrete coating systems.

Session 19 Emerging Contaminants Wilder, 4th Floor

CONTACT HOURS TBD

MODERATORS **TBD**

9:00 am
19.1

Is Complete Mineralization of PFAS Laden Wastes Possible Using Supercritical Water Oxidation?
Sudhakar Viswanathan, 374Water
This paper details the use of a 3rd generation supercritical water oxidation (AirSCWOTM) system for the elimination of recalcitrant wastes like PFAS sequestered within sludge, adsorbed on ion exchange resin, and as a major ingredient of synthetic Class B aqueous film forming foam (AFFF). The study shows that waste destruction is possible without producing any undesired byproducts. The studies produced valuable data to support design and deployment of full-scale application.

9:30 am
19.2

Microplastics: The Next Contaminant Of Emerging Concern
Kaitlyn Hague, HDR Engineering
Microplastics have become a growing environmental concern in recent years. There are several concerns that come to mind when discussing microplastics. The goal of this presentation is to give listeners a preliminary understanding of the composition and properties of microplastics, the fate and transport of microplastics in the environment, and the impact of microplastics on the health of organisms. This foundational understanding of the microplastic topic will allow attendees to better understand this contaminant of emerging concern, its risks, and control implementation strategies in an effort to limit speculative discussions; similar to what occurred with PFAS.

10:00 am **Coffee Break in Exhibit Hall**

11:00 am
19.3

Managing Emerging Contaminants Including PFAS and PCPPs in Water Reuse Systems
Scott Grieco, Jacobs
Water reclamation plays a crucial role in supporting climate change mitigation and resilience goals. Reuse is continuing to evolve and improving water sustainability through fit-for-reuse design. Of particular concern in water reclamation is per- and polyfluoroalkyl substances (PFAS) and pharmaceuticals & personal care products (PPCPs). This presentation provides an overview of both conventional and advanced reuse technologies, and their ability to mitigate emerging contaminants.

11:30 am
19.4

Proactive PFAS Management for Wastewater Utilities
David Clark, Kristin Munoz, PE, DBIA, HDR Engineering
This presentation will introduce proactive approaches to PFAS management for wastewater utilities to protect the quality of effluent and biosolids. Per- and polyfluoroalkyl substances (PFAS) are a family of thousands of manufactured chemicals that have been widely used in industry and consumer products since the 1940s. Wastewater utilities are receivers of these substances in influent sewage and consequently PFAS are present in both effluent discharges and biosolids residuals.

Session 20 Regulatory Ziegfeld, 4th Floor

CONTACT HOURS TBD

MODERATORS **TBD**

1:30 pm
20.1

SPDES Permit Writing: Behind the Curtain
Monica Moss, NYSDEC
Wastewater dischargers across NYS are permitted through the State Pollution Discharge Elimination System (SPDES) program. Permittees are often asked to submit application material and sampling data but might not know how that data gets evaluated and ultimately used to develop permit requirements. In this session, hear from NYSDEC permit writers on the specifics of establishing low flow dilution ratios, performing reasonable potential analyses, and the differences between Technology Based Effluent Limits (TBELs) and Water Quality Based Effluent Limits (WQBELs).

TUESDAY

2:00 pm
20.2

MS4 Illicit Discharge Track Down Via Microbial Source Tracking Methodology
Tony Leung, Stephen Hadjiyane, Cameron Engineering
As required by USEPA under the MS4 permit, a small municipality was required to conduct an investigation into the nature of the dry weather discharge which contained microbial contamination at one of its stormwater outfalls and to perform source track down to eliminate the illicit discharge. The genesis of the requirement was due to water sampling analysis which showed concentration of total and fecal coliform, as well as the confirmation of human markers via microbial source tracking method. The results of the investigation revealed several non-permitted connections to the MS4. some of the remedial actions have been completed and the others are currently being remedied.

2:30 pm — **Coffee Break in Exhibit Hall**

3:30 pm
20.3

Addressing Practical Barriers to Large-Scale Co-Digestion to Improve Sustained Feasibility
Rashi Gupta, Carollo Engineers
This presentation will identify practical barriers to large-scale implementation of co-digestion and offer strategies to overcome these obstacles such that co-digestion becomes more feasible in the short-term and remains viable in the long-term.

4:00 pm
20.4

Designing for Safety—The importance of NFPA 820
Jorge Carvajal, Stantec
Ventilation systems in wastewater treatment facilities are imperative to maintain safe conditions for operators, reduce airborne contaminants, and limit the need of explosion-proof electrical equipment. This presentation will provide a basic understanding of NFPA 820, its applicability to different treatment structures, and alternatives to approach the design of hazardous environments from a practical perspective.

Session 21 — Case Studies—Retrofitting Existing Infrastructure for Energy Savings (formerly Manufacturer's Forum) Odets, 4th Floor

1:30 pm — **TBD**

Session 22 — Resiliency 2 Cantor / Jolson, 9th Floor

CONTACT HOURS — TBD
MODERATORS — **TBD**

1:30 pm
22.1

Funding Mitigation and Building Resilience
Allison McLeary, Tetra Tech; Alison Miskiman, Black & Veatch
There have been substantial changes to FEMA's Hazard Mitigation program over the past 3 years, including corresponding funding at historic levels. With increased knowledge of the transformative benefits of risk and disaster mitigation, water and wastewater utilities have an opportunity to increase resilience by hardening facilities and decreasing overall risk. This technical session presentation provides an update on the mitigation funding programs and examples of water and wastewater utility mitigation projects.

2:00 pm
22.2

Cloudburst Resiliency Planning For Boston
Jeff Herr, Brown and Caldwell
Boston is experiencing more frequent flooding due to sea level rise and cloudburst events. Boston Water and Sewer Commission is responsible for flood resiliency and stormwater water quality within the city and has been proactively working to address these critical issues. This project involves identifying, prioritizing, and developing potential retrofit projects on primarily public lands, which can be aesthetically designed and provide multiple benefits, while enhancing public use.

2:30 pm — **Coffee Break in Exhibit Hall**

TUESDAY

3:30 pm
22.3

Maintain the Flow—Increasing Safety, Redundancy and Reliability in Electrical Distribution Systems
Jordan Creveling, Preston VanDeusen, Stantec
Many utilities are recognizing the need for reinvestment in their electrical infrastructure. While investments have focused on treatment processes for environmental compliance, power distribution infrastructure is often overlooked. Forward-thinking utilities with water and wastewater processing needs are now broadening their vision to encompass large-scale electrical reinvestments. This includes enhancing worker safety, adhering to new and updated codes, managing energy and plant assets, ensuring reliability through redundancy, and incorporating alternative power sources for a comprehensive approach.

4:00 pm
22.4

Nature-Based Living Shorelines and Flood Protection: The Lister Park Project
Andrew Ba Than, Erin Hague, Tetra Tech
Coastal areas worldwide are facing escalating climate change challenges and impacts, including sea-level rise, storm surge events, higher intensity storm events, and shoreline erosion. In response, innovative and sustainable infrastructure retrofit approaches are being explored. One prominent exemplar of these strategies is showcased within New York State's Lister Park Project (Project), a pivotal component of the State's broader Living with the Bay (LWTB) Program. This Project was completed in 2023 utilizing multifaceted approaches including nature-based living shorelines and stormwater management, with other community resiliency and social improvement measures, such as flood barrier protection, habitat restoration, and the enhancement of public access to the Mill River waterfront.

Session 23 Stormwater Managment / Green Infrastructure Marquis A & B, 9th Floor

CONTACT HOURS TBD

MODERATORS **TBD**

1:30 pm
23.1

Overcoming Subsurface Challenges: Implementing Green Infrastructure in NYC's Right of Way
George Papasmiris, NYCDEP
This abstract discusses New York City Department of Environmental Protection's (NYCDEP) geotechnical approach to implementing effective Right-of-Way Green Infrastructure (ROW GI). The goal of the program is to manage stormwater and reduce combined sewer overflows (CSOs) into New York Harbor in a cost-effective way. The distributed projects also provide community and environmental benefits to New York neighborhoods and residents. NYSDEP employs a comprehensive strategy involving geotechnical investigations, and a detailed analysis of subsurface soil to achieve this goal. This presentation sheds light on NYCDEP's tools and methods for successful ROWGI implementation in a historically complex urban environment.

2:00 pm
23.2

Daylighting Tibbetts Brook—Restoring a Waterway in New York City
Dahlia Thompson, Hazen and Sawyer; Amy Motzny, NYCDEP
NYCDEP and NYC Parks are working together to daylight a portion of flow from Tibbetts Brook, from Hester and Piero's Mill Pond through Van Cortlandt Park and a former rail corridor, along with an adjacent public greenway, and then transition into a 2.5'H x 6'W pipe through a Metro North maintenance railyard, to connect the stream to an existing outfall. The project is expected to reduce CSO discharges to the Harlem River by 215-220 million gallons per year, and will be the largest green infrastructure project in New York City.

2:30 pm

Coffee Break in Exhibit Hall

3:30 pm
23.3

Evaluating Distributed Green Infrastructure for Flood Reductions
Caroline Burger, Carollo Engineers
As more frequent, intense storm events occur due to climate change, additional solutions to flood reduction are needed. This presentation will describe a multi-phase project conducted to evaluate distributed green infrastructure and quantify potential flood reduction impacts. Unique to this project is how the computer modeling software was used; the flood modeling software was adapted to evaluate the typically smaller water quality volume reductions.

4:00 pm
23.4

Pre-NFIP Flood Hazard Designations: ZONE X Flood Mitigation Challenges and Innovative Solutions
Joseph Kirby, Woodard & Curran
Zone X flood mitigation presents a unique challenge and requires detailed analyses and creative solutions. Zone X flood risks have historically been less understood, less studied, and often remained unresolved. During the past few years, the Town of Greenburgh, New York has been working to mitigate flooding on some of its more complex streams with complicated flooding issues. This presentation shares the town's experiences working to characterize and mitigate these types of flooding, some of the challenges encountered, and a range of lessons learned that can help all communities better adapt to flood risks outside the traditional floodplain.

Session 24 CSO Tunnel Projects O'Neill, 4th Floor

CONTACT HOURS TBD

MODERATORS **TBD**

1:30 pm **24.1**

Case History—Design and Construction of 5,100 LF of Soft Ground Microtunneling in Hartford, CT
Thomas Loto, AECOM; Susan Negrilli, The MDC
The South Hartford CSO Tunnel program is being built by The Metropolitan District (MDC) of Hartford, CT to control combined sewer overflows. The MDC's overall tunnel program consists of a deep rock storage tunnel, eight drop shafts and a pump station to deliver the stored overflow to the main wastewater treatment facility. A critical link is the consolidation sewers needed to capture the existing sewer overflows on local neighborhood streets and deliver them to the drop shafts. The project consists of 5,100 LF of sewers installed by microtunneling constructed within the soft to very soft glaciolacustrine deposits (varved clays). The presentation will describe the design basis and contract requirements and then describe the contractor's approach, construction challenges and outcomes.

2:00 pm **24.2**

Pawtucket CSO Tunnel Design Build - Managing Risk and Quality from Design to Construction Innovations
Christopher Feeney, Stantec; Kathryn Kelly, NBC
NBC entered into a Consent Agreement with RIDEM that established a schedule for planning, design, and construction of CSO facilities. The three-phase CSO control plan established reduction goals: annual CSO volumes (98%) and shellfish bed closures (80%). Phase III includes construction of a 11,600-foot, 30-foot ID, deep rock tunnel, tunnel pump station, final clarifiers, and consolidation conduits. This presentation includes an overview of the design and operational strategy of the CSO tunnel with focuses on risk and value management.

2:30 pm **Coffee Break in Exhibit Hall**

3:30 pm **24.3**

Translating CSO Planning to Detailed Tunnel Design for ALCOSAN's Clean Water Plan
Kim Kennedy, Allegheny County Sanitary Authority; Zhenqi Cai, Mott MacDonald
The presentation introduces ALCOSAN's multi-billion-dollar Clean Water Plan (CWP) and focuses on its CSO reduction planning process under Consent Decree and the CWP's first of three deep CSO storage and conveyance tunnels to be implemented along the Three Rivers - the Ohio River Tunnel (ORT). The presentation will introduce the planning and design considerations of the critical near surface CSO flow diversion and control regulators, outfalls, deep flow drop shafts, and the conveyance tunnel to meet the objectives of the Consent Decree.

4:00 pm **24.4**

Tunnel Vision—How NEORSD Navigated the Planning and Implementation of a Successful CSO Tunnel Network in the Greater Cleveland Area
Timothy O'Rourke, Wade Trim
Northeast Ohio Regional Sewer District's proactive and progressive strategies in planning, designing, building, and operating a large complex network of CSO tunnels, integrated into their existing collection and treatment facilities, managed many challenges and risks, and resulted in an effective and compliant control system.

Session 25 Residuals / Biosolids 2 Marquis C, 4th Floor

CONTACT HOURS TBD

MODERATORS **TBD**

1:30 pm **25.1**

Technology Demonstration and Cost Analysis for PFAS Destruction in Biosolids
Micah Blate, Mohammad Abu-Orf, Hazen and Sawyer
The EPA PFAS Innovative Technology Team identified pyrolysis and supercritical water oxidation for destroying PFAS. The presentation will highlight status and results from three projects: WRF #5107: Understanding Pyrolysis for PFAS Removal; Demonstration AirSCWO – 6 at Orange County Sanitation District in CA; and Minnesota Pollution Control Agency Analysis of Alternatives for PFAS Destruction.

2:00 pm **25.2**

Impact of Several Biosolids Stabilization Technologies on PFAS
Todd Williams, Jacobs
To assist utilities and biosolids producers understand options available to them to mitigate potential PFAS contamination in biosolids, Jacobs has tested several biosolids products including dried biosolids, pyrolyzed dried biosolids and composts, all produced with non-industrially impacted biosolids to assess the concentration of PFAS compounds in the finished products and the ability of these processes to reduce and or remove PFAS compounds. Data will be presented on eight dried biosolids facilities, as well as two pyrolyzed dried products including output solids, gas and oil, and six biosolids compost products.

TUESDAY

2:30 pm **Coffee Break in Exhibit Hall**

3:30 pm **Optimizing Solids Management without Capital Investment**
25.3 Mikayla Regan, Material Matters, Inc.
Silver Spring Township Sewer Authority (SSTSA) operates a small wastewater treatment facility in central Pennsylvania. SSTSA utilizes aerobic digestion for solids stabilization and landfill for solids disposal. Facing rising costs and uncertainty associated with landfill disposal, SSTSA engaged Material Matters, Inc. to review plant operations and provide feedback on achieving Class B standards. A feasibility study was undertaken to determine process options available to achieve Class B standards. This presentation will discuss the feasibility study conducted by Material Matters, Inc. and SSTSA's digester optimization without capital investment.

4:00 pm **How to Prepare for NYCDEC DMM7: Interim Strategy for the Control of PFAS Compounds**
25.4 Mohammad Abu-Orf, Hazen and Sawyer
This presentation will discuss a two-prong approach for addressing NYSDEC DMM7 Policy through identification and diversion PFAS from influent WRRFs and PFAS destruction methods in biosolids with cost (construction and O&M) ramifications.

Session 26 University Forum Imperial / Broadhurst, 5th Floor

1:30 pm **TBD**

TUESDAY END

Wednesday, February 7

Session 27 PFAS Odets, 4th Floor

CONTACT HOURS TBD

MODERATORS **TBD**

9:00 am **PFAS in Wastewater Treatment: Occurrence, Fate, and Transformation Pathways, and Why It Matters**
27.1 Kyle Thompson, Carollo Engineers
PFAS are ubiquitous in wastewater effluent, often above state guidelines, even without direct industrial sources. Data from dozens of studies were merged to assess the occurrence, long-term trends, and seasonal patterns of PFOA, PFOS, and short-chain PFAS in wastewater effluent, as well as their removal from effluent with activated carbon.

9:30 am **PFAS Impact on Wastewater and Biosolids: Strengthen Public Trust, Restore Environmental and Financial Resources**
27.2 Kenneth Sansone, SL Environmental Law Group P.C.
PFAS are an urgent public health and environmental issue. The EPA is implementing its Strategic Roadmap, including the proposal to designate PFOA and PFOS as CERCLA hazardous substances. In this session, Ken Sansone, Partner at SL Environmental Law Group P.C., will share:

- Update on current and anticipated regulations for PFAS in wastewater and biosolids
- What wastewater systems can expect and how to prepare
- How systems can use the law to seek PFAS cleanup cost recovery

10:00 am **Coffee Break**

10:30 am **The Carbon Footprint from Removing PFAS and Similar Contaminants from Biosolids**
27.3 Bill Barber, Cambi, Inc.
There is growing concern over PFAS compounds due to impacts on human health and accumulation in the environment. Subsequently, limits have been imposed on their concentration in drinking water. However, concern has also grown to include the use of biosolids generated from sewage treatment works. Typically, biosolids are used to offset fossil-fuel derived fertilizers when applied to land where their nutrient and other value can be exploited. Due to the intrinsic properties of PFAS compounds, they are extremely difficult to destroy. This has led to an interest in thermal based systems to attempt destruction. However, these systems need dried biosolids prior to destruction making them energy intensive. This paper will look at the carbon footprint implications of PFAS destruction.

WEDNESDAY

11:00 am
27.4

Some Like It Hot, but PFAS Does Not! Advancing Thermal Destruction of PFAS in Biosolids
Natalie Sierra, Brown and Caldwell
Many utilities are facing the dual challenge of trying to address PFAS within the treatment plant and facing limitations in biosolids disposal options. This presentation will address both of those challenges and discuss how PFAS enters wastewater, accumulates in biosolids, and different destruction techniques that are being evaluated. This presentation includes results from current research on the fate of PFAS in full-scale incineration and pyrolysis processes.

Session 28 CSO / SSO / Wet Weather Cantor / Jolson, 9th Floor

CONTACT HOURS TBD

MODERATORS **TBD**

9:00 am
28.1

Smart Sewer Sensor Deployment—Tracking Wet Weather Performance for Resiliency and Sustainability
Bridget Harper, Tetra Tech; Charlie Jewell, BWSC
The Boston Water and Sewer Commission (BWSC) is developing a "smart sewer sensor" system to enable the engineers and operations to continuously monitor and efficiently manage its sewer and storm drain systems, particularly during wet weather events. Leveraging engineering experience with technology, the design team has partnered with end users at the BWSC to understand their data management and analytic approaches, maximize their existing investments in IT and applications, and ultimately, tailor a long-term system-wide monitoring solution for the BWSC.

9:30 am
28.2

Hydraulic Modeling of Flushing CSO Retention Facility: Assessment of CSO Chlorination Efficiency
Aykut Sayin, CUNY City College of New York
A Hydraulic investigation of the Flushing Creek CSO Retention Facility was conducted using CFD modeling to determine the "active volume" of the retention tanks, where water circulation occurs during overflow incidences. This information was then used for calculating the hydraulic retention time (HRT) of the CSO retention tanks, which provides guidance to assign a chlorine feed rate during overflow events, to achieve desired pathogen kill and satisfy water quality criteria in Flushing Creek/Bay.

10:00 am **Coffee Break**

10:30 am
28.3

Doubling the Wet Weather Treatment Capacity at a Large WWTP—ALCOSAN's CSO Bypass and Disinfection Project
Christopher Martin, John Story, GHD
As part of their ongoing wet weather compliance program, the Allegheny County Sanitary Authority (ALCOSAN) continues their major plant expansion and upgrade projects. This presentation focuses on the design of the project at the heart of the facility, which will double the wet weather treatment capacity of the Woods Run WWTP from 295 mgd to 600 mgd through the construction of a CSO Bypass of primary effluent and disinfection of 305 mgd, while optimizing use of existing facilities.

11:00 am
28.4

11 Years, 11 LTCPs: Highlights of DEP's CSO Long Term Control Planning Program
Keith Mahoney, NYCDEP
DEP has now completed all 11 LTCPs required by a 2012 agreement with DEC to improve water quality. Details on the first nine LTCPs were presented at the 2018 NYWEA Annual Meeting. This paper will present the recommended projects from the final two LTCPs and will discuss challenges encountered over an 11-year LTCP planning process.

Session 29 Equity and Inclusion in the Clean Water Business Soho / Herald, 7th Floor

CONTACT HOURS TBD

MODERATORS **TBD**

9:00 am
29.1

Achieving DEI in Partnership with Minority & Women-Owned Businesses
Victoria Johnson, HDR Engineering; OJ McFoy, Buffalo Sewer Authority
This session will consist of DEI insights from a national utility leader, a MWBE executive and global private sector expert who will explore how agencies and private sector firms are partnering with M/WBEs to deliver critical capital projects and large programs while addressing disparities and inequities through innovative and inclusive solutions rooted in community and sustainable outcomes.

WEDNESDAY

9:30 am
29.2

Building a Workforce Pipeline for Resilient Water Systems
Katie Porter, Brown and Caldwell
This presentation will highlight the opportunity that diversity, equity, and inclusion (DE&I) programs bring in strengthening workforce development programs and how some utilities have used data to inform priorities and next steps for their DE&I journey. This presentation will also frame up the roles different stakeholders can play to effectively engage in supporting, coordinating, and collaborating on regional workforce development programs.

10:00 am **Coffee Break**

10:30 am
29.3

Operationalizing Equity in Long Term Control Plan (LTCP) Planning—Case Study of the Buffalo Sewer Authority
Nadia Mugisha, Arcadis; Rosaleen B. Nogle, PE, BCEE, CFM, Buffalo Sewer Authority
The Buffalo Sewer Authority's mission since 1935 has been to combat pollution in the city's waterways. A comprehensive Long Term Control Plan (LTCP) aims to address collection system CSO challenges, emphasizing environmental justice. Using diverse metrics and collaborative analysis, disadvantaged community impacts were assessed, informing the prioritization of projects. By evaluating project disadvantage rankings, the ranking system promotes equitable implementation, enhancing community engagement and sustainable water management.

11:00 am
29.4

Construction of West Third Street Pump Station and Sanitary Sewer
Adina Rivera, HDR; Vincent Kopicki, Westchester County
As part of NY State's $150M Infrastructure Bill, Westchester County DEF, in partnership with EFC and the city, is rehabilitating a borehole chamber along West 3rd Street in Mount Vernon, NY into a 960 gallon per minute underground pumping station. HDR designed this fast-tracked project beginning in May 2022. It includes the new pumping station, approximately 400 LF of new 12-inch sewer pipe, and cleaning and lining of existing sanitary sewers. Construction began in March 2023. Once completed, it will provide reliable wastewater service for over 4,000 nearby residents with overburdened sewer infrastructure.

Session 30 Humanitarian Assistance Harlem, 7th Floor

9:00 am **TBD**

Session 31 Energy Conservation & Generation Wilder, 4th Floor

CONTACT HOURS TBD

MODERATORS **TBD**

9:00 am
31.1

Energy Efficiency: A Tried and True Decarbonization Strategy
Molly Keleher, JKMuir, LLC
Decarbonization studies show that energy efficiency remains a key solution to the daunting task of decarbonizing the economy in the next decade. This presentation will present the climate science and review opportunities to implement energy efficient design, equipment, and controls in the wastewater sector. Examples of energy efficiency projects in wastewater facilities will be discussed along with a review of funding available throughout the Northeast to support energy efficiency projects.

9:30 am
31.2

Energy Neutrality for the New York City Department of Environmental Protection's (DEP) 14-In-City Wastewater Resource Recovery Facilities (WRRFs)
Carl Lagasca, AECOM; Jane Gajwani, NYCDEP
DEP has been supporting citywide sustainability plans and goals through its own agency initiatives, including a plan to be energy neutral at the 14 in-city Wastewater Resource Recovery Facilities (WRRFs) by 2050. To that end, a study was performed and a WRRF Energy and Carbon Neutrality Plan (ECN Plan) was developed to calculate and outline recommended energy alternatives for the 14 in-City WRRFs to enable the DEP wastewater sector to be energy neutral by 2050. DEP is nearing finalization of its WRRF Energy Neutrality Plan, which will be a roadmap for DEP to combat climate change over the next three decades.

10:00 am **Coffee Break**

WEDNESDAY

10:30 am
31.3

Biogas to RNG—Fueling the Fleet
Shirin Estahbanati, Melanie Holmer, Brown and Caldwell
After shutting down their original biogas project decades ago, the City of Grand Rapids Michigan decided it was time to make use of its increasing volume of municipal and industrial waste to produce biogas again. This led them to invest in biogas to renewable natural gas project with a focus on fueling the city bus transit system 'The Rapid'. The project was made possible by a three-way partnership between the City of Grand Rapids, the pipeline operator DTE Energy and Interurban Transit Partnership which operates The Rapid; the Cities Bus Transit System. We will explore the equipment and processes how the partnership was developed.

11:00 am
31.4

Kansas City, Missouri's Biogas Use Project
Hannah Fodor, Carollo Engineers
KC Water's biosolids thermal hydrolysis process project is providing an opportunity to offer biogas, as well as other potentially revenue-generating resources, for beneficial use by a third-party entity. This presentation will discuss how KC Water strategically kept the biogas utilization project undefined during the three-step procurement process while ensuring a way to compare apples-to-apples proposals. We will also discuss how KC Water kept entities interested and engaged even when the project changed during procurement.

Session 32 Utility of the Future Ziegfeld, 4th Floor

CONTACT HOURS TBD

MODERATORS **TBD**

9:00 am
32.1

Leveraging Big Data Platforms in Water and Wastewater to Accelerate Machine Learning Optimization at a Regional Scale
Joshua Registe, Jacobs
This paper describes successful approaches taken for developing and deploying wide-scale machine learning algorithms in the water and wastewater industry. This includes lessons on the level of effort, investment, challenges, and benefits. Two case studies are presented: Agua Nueva Water Reclamation Facility (WRF) that focuses on reducing aeration energy cost and nutrient management, as well as Wilmington wastewater treatment facility (WWTF) with a focus on disinfection chemical optimization.

9:30 am
32.2

Planning Your Operational Technology Upgrades to Enhance Your Digital Transformation
Richard DeFreitas, Norm Anderson, P.E., Carollo Engineers
Modern utilities are faced with the unique challenges of maintaining aging technology and associated infrastructure and change from reactive to proactive asset management and maintenance, while simultaneously increasing operational efficiency with less resources. We will present case studies from Sarasota County (FL), DuPage Water Commission (IL), Milwaukee (WI) and others to illustrate how these utilities were able to plan the steps necessary to prepare for current and future SCADA technologies and related operational and maintenance challenges.

10:00 am

Coffee Break

10:30 am
32.3

Implementation of Plantwide SCADA Upgrades in a Changing World
Paul Knowles, Lorraine Salamanca, Hazen and Sawyer
The last decade witnessed marked changes in how SCADA systems serve our Water Resource Recovery Facilities. Needs include real-time data to interface with dashboards, democratized data access for different reporting goals, cybersecurity, systems resilient to climate change, and open architecture that supports maintenance and redundancy. Additionally, procurement strategy must mitigate the global supply chain shortage for electronics components. In this presentation Hazen will present select case studies of SCADA upgrades for various municipal clients and the approaches taken to adopt these principles. Lastly, we will describe emerging trends in the integration of SCADA into digital-focused services that support the Utility of the Future.

11:00 am
32.4

Feasibility Study for Locating a Wastewater Resource Recovery Facility on Rikers Island
Paula Sanjines, Jacobs; Kathleen Esposito, NYCDEP
The NYCDEP has completed a Feasibility Study to locate a new Wastewater Resource Recovery Facility on Rikers Island while considering future requirements associated with treatment, stormwater management and other needs at four existing WRRFs. This presentation will provide an overview of the feasibility study focusing on the technical elements, including site assessments, scenarios, and alignment with PlaNYC: Getting Sustainability Done, released in April 2023.

Session 33 Residuals / Biosolids 3 Soho / Gramercy / Holmstead, 7th Floor

CONTACT HOURS TBD

MODERATORS **TBD**

1:30 pm **33.1**

The Kidney Stones of Wastewater Treatment: Strategies for Struvite Mitigation, Control and Prevention

Swagata Biswas, Carollo Engineers

Struvite is a crystallization formation that is typically found within piping and occurs in the wastewater treatment process around anaerobic digesters and associated systems. It can form in the piping of other areas of wastewater processes and negatively impact the treatment and equipment efficiency of the facility. This presentation discusses struvite mitigation/sequestration options, design criteria, schedule, cost, and operations of implementing the technology and highlights struvite issues at the JEA Buckman WWTF, in Jacksonville, FL.

2:00 pm **33.2**

Co-Digestion of Organic Wastes in Anaerobic Digesters: Potential Benefits, Unintended Consequences and Lessons Learned from Multiple Studies

Ganesh Rajagopalan, AECOM

Co-digestion of high strength wastes (HSWs) with wastewater sludge can lower the greenhouse emissions through diversion of HSWs from disposal in landfills and also, provide increased biogas production. However, a number of factors including pre-processing of organic wastes, construction of infrastructure, process control, biogas treatment and conversion and regulatory have to be considered for successful implementation of co-digestion. This presentation will share experience gained from bench scale, pilot and full-scale co-digestion demonstration studies.

2:30 pm **Coffee Break**

3:00 pm **33.3**

Pyrolysis of Municipal Wastewater Biosolids—Design, Operation and Maintenance Considerations

Charles Winslow, GHD

This presentation examines the design and operation of gasification and pyrolysis treatment processes utilizing municipal wastewater biosolids feedstock in terms of system sizing and throughput capacity, bioenergy recovery potential, biochar production and beneficial reuse options, and operations and maintenance considerations. The design of a complete gasification and pyrolysis system will be evaluated, including the selection and sizing of dewatering equipment, drying equipment, dried biosolids storage, pyrolysis reactor and heat recovery, biochar handling equipment, and air pollution control equipment.

3:30 pm **33.4**

Harnessing the Power of Dried Biosolids—More than a Decade of Experience

Charles Goss, AECOM

In December of 2008, the City of Buffalo, MN began to beneficially use their biosolids as a fuel source at the Buffalo WWTF. The biosolids treatment system at Buffalo consists of a convection belt dryer to dry the material to greater than 90% dry solids and a reciprocating grate furnace that combusts the dried material. The energy from the furnace flue gas is recovered in an air-to-air heat exchanger that provides the majority of the energy for the drying process. The Buffalo system is one of the only North American WWTFs that uses dried biosolids onsite for energy recovery and has a long successful operational track record after more than a decade of operational experience.

Session 34 Water Reclamation 3 Cantor / Jolson, 9th Floor

CONTACT HOURS TBD

MODERATORS **TBD**

1:30 pm **34.1**

Takeaways from Design of the Village of Bath WWTP Upgrades

Jason VerNooy, GHD; Erin Bonacci, Bath Electric, Gas & Water Systems

Reviewing the Village of Bath design of a $43 million project to upgrade their WWTP for meeting new permit requirements and address aging infrastructure. The WWTP will be expanded by 30% to a 1.3 mgd facility with new membrane bioreactor (MBR) technology. The metaphorical road of this project has been a long one, with many twists and turns. Issuance of a new permit had the design team focused on resiliency. More stringent limitations for current effluent parameters including nitrogen and phosphorus are anticipated, and potential future parameters such as TDS, PFOA, PFAS, 1,4-Dioxane. Evaluations of MBR suppliers, different operations, protection of the membranes given the harsh winters in NYS, and site constraints led the team down an explorative journey.

2:00 pm
34.2

Are the New Odor Control Biofilters Any Better than the Original?
Dick Pope, Hazen and Sawyer
Today's biofilters include a range of medias and styles that still all rely on a single founding principle – the ability of microorganisms to mitigate odors! For a plant in a Northeast coastal community the application of an in ground, wood chip and compost open biofilter had been accepted years ago and treated solids handling and sludge storage tank odors. The biofilter mitigated nuisance odors/complaints but had a large footprint, was more maintenance intensive than envisioned, and the media was replaced every three to five years (a major event). Space occupied by the biofilter was needed for an upcoming plant upgrade. An odor control evaluation ensued focused on modifying, moving, or replacing the existing biofilter with a newer model.

2:30 pm

Coffee Break

3:00 pm
34.3

Modern Trickling Filters Solutions for the 21st Century
Joshua Sablan, Brentwood Industries
This presentation provides a comprehensive overview of modern trickling filter systems. Selected case studies will be presented to demonstrate the treatment capability, energy efficiency and excellent shock loading resistance of trickling filter systems. Practices, and concepts of integrating trickling filters into a biological nutrient removal process will also be discussed. Modern trickling filters are environmentally friendly and reliable biological treatment systems that should be given full consideration in today's wastewater treatment plant design.

3:30 pm
34.4

Optimization of Chlorination at PVSC's Newark Bay Treatment Plant with Application of Integrated Concentration Time (ICT) Dose Pacing
Baris Kaymak, CDM Smith
Similar to other utilities in North America, PVSC also experienced a sharp price increase in sodium hypochlorite. PVSC initiated a study to optimize chlorine dose strategy with integrated concentration time (ICT) dose pacing approach. The study included measurement of undisinfected fecal coliform twice a day for a month period, performance of 5 sets of bench scale fecal coliform inactivation tests on secondary clarifier effluent samples over a 5-month period and development of site-specific ICT model. Application of ICT based chlorine dose pacing strategy reduced the chlorine consumption while keeping the effluent fecal coliform below the permit limits.

Session 35 A Digital Focus in the Water World Odets, 4th Floor

CONTACT HOURS TBD

MODERATORS **TBD**

1:30 pm
35.1

Navigating Digital Transformation for Municipalities, Utilities, and Engineering Firm
Dustin Sedlack, EDR
Digital transformation has been a trendy topic for municipalities for many years and is often regarded as available to only the few municipalities with budgets large enough to meet their own cutting-edge aspirations. However, developing a digital strategy is important to all sizes and complexities of organizations and is more attainable and affordable than many are aware. Join us for a discussion on how many wastewater municipalities are planning and delivering on their digital aspirations.

2:00 pm
35.2

WRF 4917 - Utilizing Smart Water Network Technology to Manage Pressure and Flow for Reduction of Water Loss and Pipe Breaks
John Abrera, Stantec
This Water Research Foundation (WRF) project, WRF 4917, has recently been completed and includes four SWN pilots at both large and small utilities to confirm SWN technologies. With results from a series of case studies and lessons learned, it provides the basis for the guidance manual on best practices to manage pressure and flow, resulting in the reduction of water loss and pipe breaks.

2:30 pm

Coffee Break

3:00 pm
35.3

Mapping the Future: LIDAR, BIM, and the Digital Preservation of NY's Infrastructure
Jia "David" Wu, Maulik Shah, EnTech Engineering, PC
New York's water infrastructure, a marvel spanning three centuries, demands rapid, cost-effective, and thorough engineering. Reality capture and BIM technologies have emerged as pivotal, shaping infrastructure engineering's future and seeding ground for AI and digital twins. Reality Capture, leveraging LIDAR and drones, facilitates precise digital reconstructions of vast environments. Paired with BIM, the approach offers more than documentation: it provides 'as-built' models, refined visualizations, and streamlined stakeholder coordination. Based on dozens of projects in New York and New Jersey, we will discuss this technology's transformative potential. Emerging innovations, like cloud-hosted BIM and SLAM scanning, herald a more interconnected infrastructure management era.

3:30 pm
35.4

Digital Transformation in the Water Industry: Overcoming Barriers and Enhancing Efficiency Through the Asset Generator Case Study
Chirine Chidiac, Alan Levy, Arcadis
The water industry has been slow to adopt digital tools, often due to unfamiliarity, lack of expertise, and skepticism about reliability. This presentation introduces the Asset Generator, an in-house developed tool that simplifies project planning and design. Incorporating APIs from major design platforms and a custom design automation plug-in, the tool seeks to make digital resources both accessible and effective for a broad audience, ultimately aiming to overcome traditional barriers to digital adoption.

Session 36 Government Affairs & Public Outreach Soho / Herald, 7th Floor

CONTACT HOURS TBD

MODERATORS **TBD**

1:30 pm
36.1

The Road to Funding a Project Through the CWSRF
Karen Rusin, NYS Environmental Facilities Corp
Looking for ways to smooth the funding of your project through the CWSRF? This session will cover the various steps that a municipality takes to plan, design, and construct an infrastructure project and discuss EFC's expectations. Project case studies will showcase the various steps from idea to project completion.

2:00 pm
36.2

Public Engagement: It's About the Journey, Not the Destination
Liz Stoppelmann, HDR
The average adult has an attention span of just EIGHT SECONDS, so how do we facilitate meaningful conversations in an already complex environment? Learn about the best practices when it comes to creating accessible and engaging public meetings. Using a 'choose your own adventure' approach, create a customized engagement to build community trust and involvement. This presentation will provide various in-person and virtual tools to best engage with your communities.

2:30 pm **Coffee Break**

3:00 pm
36.3

Navigating One Water Planning through Municipal Water Programs: Meeting Multiple Objectives and Regulatory Challenges (Water Research Foundation Project 5175)
Julie Stein, Trent Stober, HDR
Municipal water utilities are facing unprecedented challenges to provide reliable, accessible water, wastewater and stormwater service for customers. Water Research Foundation 5175 - Navigating One Water Planning through Municipal Water Programs will provide utilities with One Water planning guidance to facilitate holistic, higher value investments while meeting regulatory obligations. This presentation will describe the project's research approach, including engagement of utilities, regulatory agencies, and other stakeholders, and progress to date applicable for New York's utilities.

3:30 pm
36.4

How Local Health Departments Are Using Wastewater Surveillance to Address Infectious Disease Threats Across New York State
Dustin Hill, Syracuse University
Wastewater treatment plants throughout New York State have supported testing of wastewater for infectious disease for public health benefit. We report on how local health departments are using the data from the statewide wastewater surveillance network.

Session 37 Asset Management Ziegfeld, 4th Floor

CONTACT HOURS TBD

MODERATORS **TBD**

1:30 pm **37.1**

Developing an Asset Management Framework for Stormwater: Using MS4 General Permit Requirements to your Advantage

Janelle Bonn, Cris Perez, Woodard & Curran

There is a significant, largely unexplored overlap between MS4 compliance programs and asset management. Leveraging MS4 programs into a stormwater-specific asset management approach improves efficiency, resiliency, and financial performance, and opens up future funding opportunities. This presentation offers a framework for Stormwater Asset Management that leverages the effort already undertaken for MS4 compliance to optimize stormwater management. The framework includes an approach addressing climate change impacts (flooding, contaminants), and for evaluating financial benefits.

2:00 pm **37.2**

NYSDEC/NYSEFC Asset Management Program

Danyel King, NYSDEC; Suman Bopaiah, Arcadis

In November of 2022, the NYSDEC and NYSEFC announced that 27 municipalities and 11 engineering firms were selected to participate in The State Asset Management Program. This is a continued effort to help improve collection and WWTP systems across New York. This presentation is an update on the work done to date and the future efforts to come. Case studies of tasks carried out at the municipalities including the challenges, highlights, and lessons learned, will be discussed.

2:30 pm **Coffee Break**

3:00 pm **37.3**

Goldilocks Revisited: Taking Asset Management from Too Much to Just Right

Anne Kennedy, Brown and Caldwell

All utilities are faced with the need to make smart decisions about their assets using limited resources. Asset management principles and the elements that comprise a program are straightforward and can readily be applied by staff. However utilities often struggle with developing an asset management strategy and implementing a successful program. This presentation will help utilities understand where to focus efforts and how program scalability can increase implementation success.

3:30 pm **37.4**

Disaster Preparedness and Recovery—Common Issues in Asset Management and Documenting Disaster-related Damages

Allison McLeary, Tetra Tech; Alison Miskiman, Black & Veatch

It is not a matter of if a disaster will strike, it's a matter of when. The correct and full inventory of water, wastewater, and stormwater assets and their current condition is critical in any post-disaster program, especially those including federal funds. Proving a disaster happened is easy; proving the disaster caused damages to your facilities and infrastructure is another thing. This presentation outlines FEMA's expectations related to documentation of pre- and post-disaster conditions and provides actionable guidance with real-world examples in New York, Pennsylvania, Florida, Louisiana, and Texas leading to a more complete recovery.

WEDNESDAY END

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Remember to Fill Out Your Speaker Evaluations!

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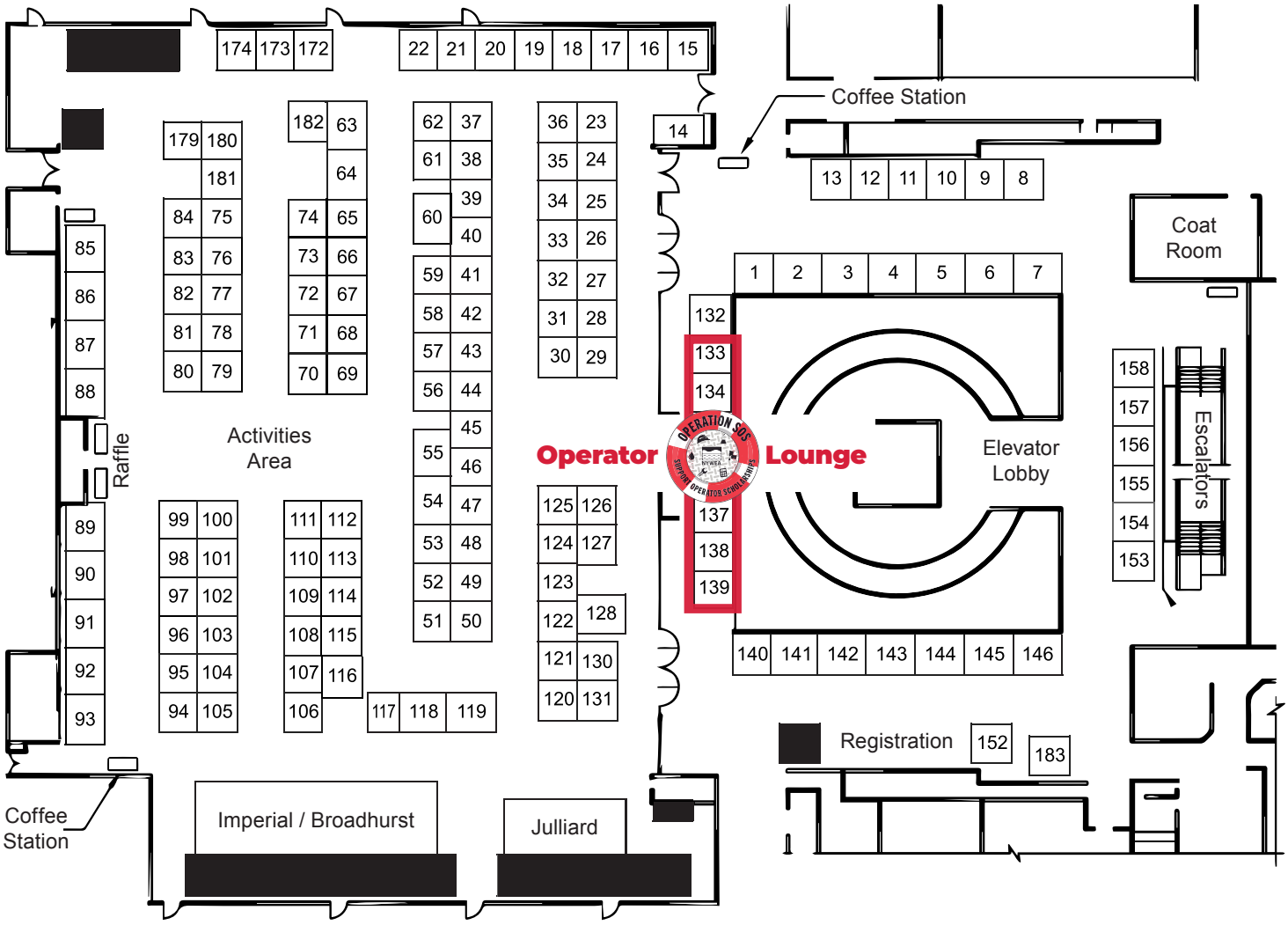
(Speaker Evaluation link through Google.)



Our Exhibitors

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GP Jager / Parkson / Shand & Jurs Biogas	6
GP Jager / Evoqua Water Technologies, Xylem	7
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Special Events

Monday, February 5

11:00 am–1:30 pm — **Water Ambassadors Brunch**, President's Suite, 45th Floor

12:00 pm–1:30 pm — **New Member Meet 'n Greet Lunch**, Julliard, 5th Floor
New members, come join your NYWEA contemporaries.
RSVP: mah@nywea.org.

2:30 pm–3:30 pm (FREE) — **Women's Networking**, Broadhurst, 5th Floor. Sign-up sheet at Registration.
The Women's Networking Event is meant to be a time for women in the water industry to get together, get to know each other and share stories. We hope to see you there!

Tuesday, February 6

1:30 pm–4:30 pm — **University Forum,** Imperial / Broadhurst, 5th floor. Registration required.
Student Paper Competition
During the University Forum
Awards will be presented in four categories:

- 1st Place – $600 and a plaque
- 2nd Place – $250 and a plaque
- 3rd Place – $150 and a plaque
- Finalist – Plaque

4:30 pm–6:30 pm (FREE) — **YP Reception**, Marriott Marquis, 9th Floor, Upper Terrace Promenade. Registration required.
All are welcome to attend!

Wednesday, February 7

12:00 pm–1:30 pm — **Awards Ceremony** (Location TBD) Registration required.
Come and enjoy lunch and celebrate deserving individuals and utilities!

NYWEA YP Reception – Tues., Feb. 6, 4:30 pm-6:30 pm

Students, professionals of all experience levels are welcome to attend! Conference registration is not required.

RSVP at Eventbrite.

NYWEA
LEADING THE WAY IN WATER QUALITY MANAGEMENT

Marriott Marquis, 9th Floor
Upper Terrace Promenade

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