

PennTec 2026

REGISTRATION

PROGRAM

June 15-18, 2026 |


Hershey Lodge
325 University Drive, Hershey, PA 17033

Conference at a Glance

(as of December 31, 2025)

Visit www.pwea.org for the most up to date program schedule.

MONDAY, JUNE 15

8:00am-1:00pm	Annual Golf Tournament
11:00am-3:00pm	Community Service Project
3:00pm-5:00pm	Registration Open
 5:30pm-7:00pm	100th Anniversary Reception
 7:00pm-10:30pm	100th Anniversary Gala*

TUESDAY, JUNE 16

7:00am-5:00pm	Registration Open
7:00am-8:00am	Continental Breakfast
7:30am-8:30am	Keynote Presentation
8:40am	Exhibit Hall Open
8:40am-11:30am	Morning Technical Programs <ul style="list-style-type: none"> • <i>Biosolids</i> • <i>Collection Systems</i> • <i>Engineering & Construction</i> • <i>Stormwater</i> • <i>Utility Management & Government Affairs</i> Workshops <ul style="list-style-type: none"> • <i>Activated Sludge Refresher Course – Day 1 of 2</i> • <i>Laboratory Practices Committee Workshop</i>
8:00am-5:00pm	
8:45am-12:00pm	
9:45am-10:15am	Refreshment Break in Exhibit Hall
12:00pm-1:00pm	Complimentary Lunch in Exhibit Hall
12:00pm-1:00pm	InFLOW Mentors and Scholars Lunch
12:30pm-1:00pm	PWEA Annual Business Meeting with Dessert & Coffee
12:55pm-1:00pm	5-Minute Vendor Presentations
1:00pm-3:30pm	Professional Operators (PO) Plant Tour
1:00pm-4:45pm	Afternoon Technical Programs <ul style="list-style-type: none"> • <i>Biosolids</i> • <i>Collection Systems</i> • <i>Engineering & Construction</i> • <i>Stormwater</i> • <i>Utility Management & Government Affairs</i>
2:40pm-3:40pm	Refreshment Break in Exhibit Hall
4:45pm-5:45pm	President's Reception in Exhibit Hall
5:45pm-7:00pm	Annual PWEA Awards Ceremony & Reception
7:15pm-9:30pm	Tailgate Dinner and Cornhole Tournament*

*Paid ticketed event, pre-registration required

WEDNESDAY, JUNE 17

7:00am-5:00pm	Registration Open
7:30am-8:30am	Exhibit Hall Open with Continental Breakfast
7:55am-8:00am	5-Minute Vendor Presentations
8:00am-11:45am	Morning Technical Programs <ul style="list-style-type: none"> • <i>Collection Systems</i> • <i>Engineering & Construction</i> • <i>Utility Management & Government Affairs</i> • <i>IW Pretreatment</i> • <i>Professional Operator</i> Workshops <ul style="list-style-type: none"> • <i>Responsibilities of Clean Water Professionals "Operator Ethics"</i> • <i>Activated Sludge Refresher Course – Day 2 of 2</i>
8:00am-11:45am	
8:00am-5:00pm	
9:40am-10:40am	Refreshment Break in Exhibit Hall
11:45am-1:00pm	Complimentary Lunch in Exhibit Hall
11:45am-1:00pm	Women in Water Luncheon
12:55pm-1:00pm	5-Minute Vendor Presentations
1:00pm-4:45pm	Student Research Poster Presentations
1:00pm-4:45pm	Afternoon Technical Programs <ul style="list-style-type: none"> • <i>Collection Systems</i> • <i>Engineering & Construction</i> • <i>Drinking Water</i> • <i>IW Pretreatment</i> • <i>Artificial Intelligence</i> • <i>Student Research Podium Presentations</i>
2:40pm-3:40pm	Refreshment Break in Exhibit Hall
4:45pm-5:45pm	Wednesday Reception in Exhibit Hall
4:45pm-5:45pm	Operator Olympics in Exhibit Hall

THURSDAY, JUNE 18

7:00am-8:30am	Continental Breakfast
7:00am-12:00pm	Registration Open
8:00am-11:15am	Morning Technical Programs <ul style="list-style-type: none"> • <i>Engineering & Construction</i> Workshops <ul style="list-style-type: none"> • <i>Solids Handling & Disposal</i> • <i>Excavation and Trenching Refresher</i> • <i>Stormwater</i> • <i>Safety</i>
8:00am-11:30am	
9:00am-1:00pm	PA DEP Water/Wastewater Operator Certification Exam
9:40am-10:10am	Break Refreshments
11:30am	Conference Concludes

A Message from the PWEA Leadership

On behalf of the PWEA Board of Directors and the 2026 Conference Committee, we are delighted to invite you to attend PWEA’s 97th Annual Technical Conference and Exhibition (PennTec 2026), taking place June 15-18 at the Hershey Lodge in Hershey, PA.

This year is especially significant as we celebrate PWEA’s 100th Anniversary, a century of service, innovation, and dedication to protecting Pennsylvania’s water environment. We are proud to honor our history and recognize the individuals and organizations who have advanced clean water and environmental protection throughout the state.

The Conference Program offers a broad range of technical sessions on water quality and environmental topics. In addition, our PA DEP-approved workshops provide opportunities to earn up to 19.0 DEP Contact Hours or 19.0 Continuing Education Hours in just a few days.

A key highlight of PennTec is the vendor exhibition, where you can explore innovative technologies, products, and equipment designed to enhance efficiency, safety, and sustainability. We encourage you to engage with exhibitors and discuss how their solutions can support your productivity.

PennTec also offers many opportunities to connect with colleagues and celebrate our shared mission. On Monday, join us for the Annual PWEA Golf Tournament and the Students & Young Professionals (SYP) Community Service Project. On Tuesday, enjoy the Plant Tour, President’s Reception, Annual PWEA Awards Ceremony & Reception, and the Tailgate Dinner & Cornhole Tournament. Wednesday’s events include the Women in Water Luncheon, Wednesday Reception, and the Operator Olympics.



Don’t miss our historic 100th Anniversary celebration! We’ll honor 100 Years Strong, Flowing Forward with a Free 100th Anniversary Reception and a Ticketed 100th Anniversary Banquet, an evening of food, music, and fellowship as we celebrate our past and look ahead to the next 100 years.

We believe PennTec 2026 will provide everything you need under one roof – education, innovation, and connection – as we celebrate a century of PWEA’s service to Pennsylvania’s water environment. We look forward to seeing you in Hershey!



Vanessa Nedrick
Chair, PennTec 2026
Conference Committee



James Degnan
PWEA President



Robert W. Dengler II
Chair, PennTec 2026
Program Committee



Matt Warfel
Co Vice-Chair,
PennTec 2026
Program Committee



Garrett Stoy
Co Vice-Chair,
PennTec 2026
Program Committee



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General Information

Conference Registration

Registration is available for the Full Conference or at the Daily Rate. **See the chart below for a list of everything included with your registration fee.** Access to the Exhibit Hall is included for the day(s) covered by your registration. You must be a member of PWEA or WEF/PWEA to qualify for Member rates.

Registration Confirmation

Confirmations will only be sent by email. Please be sure to include your email address on your registration form. Check your junk and spam folders if you don't receive your confirmation.

Online Registration

To register online, go to www.pwea.org, click on Event Registration under the Calendar tab, scroll down to the PennTec event description, then click the Register link to go to our secure registration page. Online registration is available with credit card payment, or you can register online and then mail a check within 10 business days. Credit card transactions will include a 3.5% "technology fee."

Mobile Numbers

Mobile numbers are requested during registration, in case it is necessary to reach you during the Conference.

Young Professionals

A special one-day registration rate is available for Young Professionals who wish to attend the Conference on Tuesday or Wednesday. The discounted YP fee includes access to the Exhibit Hall and regular educational Conference sessions, plus continental breakfast, breaks and lunch. Driver's license ID is required when checking in on-site. Non-member YPs (water professionals under the age of 30) will be asked to verify their age.

Spouse/Life Partner Registration

With each FULL Conference registration, a spouse/life partner may be registered at an additional cost of \$150. Daily and discounted registrations do not qualify for this registration category. Training sessions, workshops, and ticketed events are not included. Ticket(s) must be purchased if a spouse/life partner wishes to attend those events.

College Students

Full-time college students may register at no charge and students will be asked to email a scan of their current student ID.

Ticketed events and workshops are not included.

Cancellation/Substitution Policy

No refunds granted after May 31. A \$50 cancellation fee will be assessed on all refund requests received by May 31. All refunds must be requested in writing. Substitutions are permitted with a \$25 per person substitution fee. Substitutions may be made until May 31 and must be made in writing, accompanied by a new registration form. Substitutions may not be made on-site.

Badges

Upon arrival at the Conference, visit the PWEA Registration Desk to pick up your badge/lanyard and other Conference materials. Everyone must have a badge to be granted access to the Exhibit Hall, sessions, workshops and food areas – no exceptions. **Badges will be checked, so please wear your badge in a visible area at all times.**

WiFi

Wireless internet service will be available at no charge in the Exhibit Hall.

Consent for Use of Photographic Images

Registration and attendance at, or participation in, the PWEA Annual Technical Conference & Exhibition and related activities constitutes an agreement by the registrant to permit PWEA's use and distribution (both now and in the future) of his/her image in photographs, promotional materials, electronic reproductions, etc., of these events and activities.

Time Between Sessions

An extra 5 minutes has been added between each of the Technical Program sessions to allow attendees time to move between Technical Programs.

5-Minute Vendor Presentations

Exhibiting vendors will be given the opportunity to make a 5-minute presentation about their products or services prior to the start of each of the half-day Technical Programs.

What's Included with Your Conference Registration

	100th Anniversary Reception	Technical Program Sessions	Workshops	Monday Exhibit Hall; Continental Breakfast; Breaks; Lunch; Reception; Annual Awards Ceremony	Tuesday PO Plant Tour	Tuesday Tailgate Dinner	Wednesday Exhibit Hall; Continental Breakfast; Breaks; Lunch; Women's Luncheon; Reception	Thursday Continental Breakfast; Break
Full Conference	Yes	Yes	Discounted	Yes	No	No	Yes	Yes
Tuesday only	No	Yes	No	Yes	No	No	No	No
Tuesday only, YPs	No	Yes	No	Yes	Discounted	No	No	No
Wednesday only	No	Yes	No	No	No	No	Yes	No
Wednesday only, YPs	No	Yes	No	No	No	No	Yes	No
Spouse Life Partner Registration	Yes	No	No	Yes	No	No	Yes	Yes

Early Registration Discount

Register online by April 19th and save \$50 on your Conference registration fee. In order to qualify if paying by check, payment must be postmarked by April 19th. (Discounted fees are noted on registration form.)

Exhibit Hall Information

The Exhibit Hall is PennTec's hub for networking, food and fun! The exhibits will open on Tuesday at 8:40am and will close on Wednesday at 5:30pm.

Exhibit Hall Raffle!

All registered attendees will be given raffle tickets, and then place them in clear boxes throughout the Exhibit Hall. Each clear box is for a specific prize. Attendees can put as many of their tickets as they'd like in any of the clear boxes – the more tickets, the better the chances of winning that prize! Raffle drawings will be announced in the Exhibit Hall throughout the Conference.

Attendees must be present to win.



Exhibit Hall Food Functions

Lunch, morning and afternoon breaks, and the President's Reception will be in the Exhibit Hall on Tuesday. Continental breakfast, morning & afternoon breaks, lunch, and the Beer & Pretzels/Wine & Cheese Reception will be in the Exhibit Hall on Wednesday.



President's Reception

Tuesday, 4:45-5:45pm

Be sure to attend the President's Reception! Enjoy **FREE beer, wine, cheese, and pretzels** while you network with your colleagues and the vendors.

There is no charge for this event.

You must register to receive a free drink ticket.



Wednesday Reception

Wednesday, 4:45-5:45pm

FREE beer, wine, cheese, and pretzels will be served! Come to the Hall to relax and visit with the vendors.

There is no charge for this event.

You must register to receive a free drink ticket.



Exhibit Hall Bingo

PWEA Exhibits and Sponsors Committee invite you to participate in this event during Tuesday and Wednesday of the Conference.

Conference attendees receive a Bingo card and visit the participating exhibitors to have their cards stamped by the exhibitor in the corresponding Bingo card space. Once squares are stamped in a line (vertical, horizontal, or diagonal), the attendee turns in the card to a designated individual or booth. Bingo cards should be handed in before the last break on Tuesday or Wednesday, and are placed in the daily prize drawing.

Three cash prizes will be awarded – \$150, \$100 and \$75!

Car Racing in the Exhibit Hall

The Exhibits & Sponsors Committee is hosting the 4th Annual Car Racing event!

Hot Wheels cars will be raced down a track within exhibit booths during breaks. Races will be in heats of 6-8 numbered cars. Winner of each heat advances to the final. Each heat winner and the overall winner will receive a gift card.



Special Events

Community Service Project

Monday, 11:00am-3:00pm

The Young Professional sponsored community service project at PennTec will take place locally, within driving distance of the Hershey Lodge. There will be opportunities to improve facilities within the neighboring community. Additional details will be provided as we get closer to the event.

Volunteers are asked to bring their own work gloves, if possible. Water, snacks, and lunch will be provided.

Participation is open to anyone. Volunteers are asked to wear long pants, closed-toe shoes, and to dress for the weather. The project will be held rain or shine.



Annual PWEA Golf Tournament

Monday, 8:00am

Sponsored by the Professional Operators Committee

Join your colleagues for a friendly game of golf at the Manada Golf Course in Grantville, PA. The course is located about 20 minutes from the venue. A light breakfast, lunch and prizes will be provided. Net proceeds from the tournament will benefit PWEA's Operations Challenge Program.

Cost is \$150 per person (or \$450 per foursome), and includes greens fee, golf cart, lunch and refreshments. You must register by May 31st; on-site registration is not available for this event. Appropriate golf attire is required.

You may register your foursomes online at www.pwea.org, under the Attendee Registration.



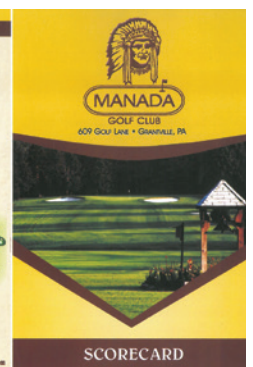
HOLE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	IN	Total Bating/Slope
Blue	548	555	562	568	575	582	588	595	602	608	615	622	628	635	642	648	655	662	668	71.9/127
White	513	520	527	533	540	547	553	560	567	573	580	587	593	600	607	613	620	627	633	70.6/123
Handicap	13	15	17	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	
Par	4	4	5	4	5	4	4	4	5	4	4	5	4	5	4	4	5	4	5	
Handicap	3	15	17	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	
Gold	480	501	522	543	564	585	606	627	648	669	690	711	732	753	774	795	816	837	858	87.7/114
Red	450	471	492	513	534	555	576	597	618	639	660	681	702	723	744	765	786	807	828	84.9/115

Rediscover Your Game...

REDISCOVER GREAT GOLF AT MANADA GOLF CLUB!
Est. 1964

SCORER:
ATTEST:
DATE:
TEE TIME:

COURSE RULES
<ul style="list-style-type: none"> • USGA rules of golf shall govern all play except as noted. • Ball over water plays, in service roads or cart paths, may be dropped nearest relief no closer to hole without penalty. • Ball dropping on ground under repair or in casual water may be dropped without penalty. • Out of Bounds: A hole must be on P. 1. Right of White on P. 1. Left of White on P. 1. 6, 10, 11, 12, 18. Ball's behind green. Penalty is one stroke and distance. • Clubs: Putting along and through holes 1, 11, 12, and 13 played as water hazard. One stroke penalty. • Keep play moving, for faster play through. • Please replace all divots and repair ball marks. • No cutting in on #10 tee.
<p>Manada Golf Club 609 Golf Lane • Grantville, PA 717.468.8400 manadagolfclub.com info@manadagolfclub.com</p>



SCORECARD

Special Events



100th Anniversary Reception

Monday, 5:30-7:30pm

PWEA is hosting a special all-attendee celebration where participants can connect and mingle with their favorite exhibitors and sponsors. This reception will take place on Monday from 5:30-7:00pm in the Aztec Room and will feature light appetizers, entertainment, and networking opportunities. Immediately following, join us for the ticketed 100th Anniversary Gala, a highlight event of the year. Free drink ticket for registered attendees and their registered guests. More details to come!



Celebrate 100 Years of Clean Water Leadership!

Monday, 7:30pm

Join PWEA for our 100th Anniversary Gala, an elegant evening honoring a century of protecting and improving Pennsylvania's water resources. Dress in your finest and enjoy a special banquet, commemorative exhibits, and the chance to reconnect with colleagues and industry friends. Celebrate the people, projects, and milestones that shaped our history. This is a once-in-a-century event you won't want to miss. Reserve your spot today and be part of this unforgettable celebration!

Pre-registration is required. Tickets are \$100 per person. Dinner and a drink ticket are included.

Past PWEA Presidents will receive a special invitation to enjoy the gala for free.



PWEA Annual Business Meeting

Tuesday, 12:30-1:00pm

Conference attendees are invited to attend and participate in the Annual Business Meeting. The Board of Directors welcomes input from everyone. PWEA members will vote on Officer positions.

Coffee and dessert will be available during the Annual Business Meeting.



Plant Tour

Tuesday, 1:00-3:30pm

Discover how Capital Region Water manages Harrisburg's essential water systems from source to tap and back again. This guided tour will showcase the advanced processes behind drinking water treatment, wastewater management, and stormwater infrastructure. This tour is hosted by the Professional Operators Committee. Bus transportation will be provided.

PennTec
2026 97th Annual Technical
Conference & Exhibition



Special Events

PWEA Annual Awards Ceremony & Reception

Tuesday, 5:45-7:00pm

Hosted by the Student & Young Professional Committee

The Annual Awards Ceremony honoring your colleagues who have won prestigious state and national awards will take place following a short reception. This event is open to all Conference attendees.

Pre-registration is required. There is no charge to attend. Includes hors d'oeuvres and a drink ticket.



Tailgate Dinner & Cornhole Tournament

Tuesday, 7:15-9:30pm

Ready, aim, toss! Join this fun and friendly evening of networking, cornhole tournament, food, drinks and great prizes. A tailgate themed dinner buffet will begin at 7:15pm and cornhole teams will be randomly formed beginning after dinner. The event is open to all experience levels. Attendees are encouraged to don their favorite team's tailgating attire.

Pre-registration is required. Tickets are \$70 per person. Dinner and a drink ticket are included.



Women in Water Luncheon

Wednesday, 11:45am-1:00pm

Join your colleagues for the third annual Women in Water Luncheon. This luncheon will feature networking opportunities and discussion with prominent women who are dedicated to water quality and who will share their personal and professional challenges and successes, work/life balance, and education experiences.

Pre-registration is required. There is no charge to attend.



NEW!

PennTec Volunteer Project

Join us during PennTec as we come together to support the local Ronald McDonald House by stuffing supply bags for families in residence with their children receiving treatment. It's a simple, hands-on way to make a meaningful impact during the conference. This will take place onsite at the Hershey Lodge.

Sign up during your registration if you'd like to participate!



Special Events

PWEA Student Research Poster Contest

Wednesday, 11:45am-1:00pm

The PWEA Research Committee reviews student research submissions and invites qualifiers to participate in the Poster Contest. After judging by faculty and practicing engineers, the top three poster presenters in both undergraduate and graduate categories are chosen. Posters will be available for viewing by Conference attendees. Awards will be presented at the Student Research Program.



Operator Olympics

Wednesday, 4:45-5:45pm

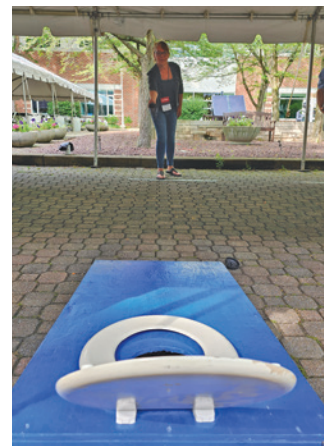
Sponsored by the Professional Operators Committee

This is a fun activity based on some real Olympic events, but with a wastewater twist. Games may include:

Bowling, using a ball from a pump and BOD bottles; Plunger Toss, tossing small plungers into a bucket; Golf Ball Chip, chipping golf balls into a toilet; Hockey, score a goal through a toilet seat; and Turd Toss, throw (plastic!) turds into a bucket.

Can you think of a better way to have some fun?

**There is no charge and pre-registration is not required.
This is a competitive event and prizes will be awarded.**



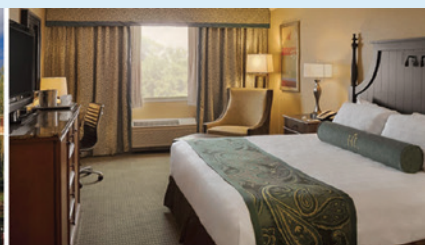
Hotel Accommodations

Hershey Lodge - 325 University Drive - Hershey, PA 17033

A block of rooms has been reserved at the Hershey Lodge for PennTec 2026. Reservations will be accepted beginning February 13 and must be made by May 15, 2026. Rooms may not be available after this date. The discounted room rate is as follows:

- \$269.00 per Room for Single/Double Occupancy (all rooms are non-smoking)
- Overnight guests receive a complimentary ticket to the Hershey Gardens and the Hershey Story Museum. Also included at no charge for all overnight guests is the hotel's miniature golf course, the arcade, an outdoor pool, and Hershey's Water Works – a 30,000 square foot indoor pool complex and water park.

Call Reservations at 1-855-729-3108 and mention PENNSYLVANIA WATER ENVIRONMENT ASSOCIATION to receive the discounted rate. Online reservations can be made by going to the link provided on PWEA's website.



Technical Program Details

An extra five minutes has been added between sessions to allow attendees time to move between Technical Program rooms if they wish to do so.

TUESDAY MORNING

BIOSOLIDS PROGRAM

8:40am-9:10am – 40 CFR Part 503: Reminding Utilities of all the Alternatives and Options for Beneficial Use

Speaker: Lisa Challenger

Biosolids beneficial use regulations in the US are more than 30 years old... found in the Code of Federal Regulations Title 40, Part 503 (40CFR 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 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.

9:15am-9:45am – Treating a Multitude of Solid Wastes with a High Temperature Thermochemical Surface Melting Furnace

Speaker: Larry Morris

A high temperature, thermochemical surface melting furnace is utilized for treating sewage sludge and other solid waste types. A detailed overview of the technology is presented with various references showcasing the technology's versatility.

10:20am-10:50am – Cutting Digester Cleaning Costs: Dilution Based Solids Recovery in Anaerobic Digesters

Speaker: Mohammed Akmel Argaw

Philadelphia Water Department optimized anaerobic digester cleaning by introducing a controlled dilution and recycling approach to recover fine organic solids. This method reduced solids disposal by 41.7% and overall costs by 46%, offering a sustainable, cost-effective model for municipal wastewater facilities managing rising hauling and dewatering expenses.

10:55am-11:25am – Biosolids Master Planning: It's More Than PFAS

Speaker: Stephanie Spalding

Dynamic biosolids master plans provide a roadmap to facilitate making smart investments in infrastructure and operations now while maintaining the flexibility to respond to the next regulatory or economic hurdle to arise.

11:30am-12:00pm – Are Biosolids Innovations Living up to the Hype?

Speaker: Terry Goss

This presentation will explore biosolids innovations and opportunities which are available or in development. These mainly include thermal technologies including drying, gasification, pyrolysis, and hydrothermal processing. The state of the research on these technologies to deal with emerging contaminants will also be presented.

COLLECTION SYSTEMS PROGRAM

8:40am-9:10am – Considerations When You Have to Upgrade Your ACP Sewer

Speaker: David L. Klemm

The presentation will discuss design considerations for upgrading an existing ACP sanitary sewer system. There will be an emphasis on regulatory considerations for upgrading ACP sanitary sewer with pipe bursting, abandonment in place with parallel sewers, and removal. EPA regulatory requirements as well as PADEP/NJDEP requirements will be discussed.

9:15am-9:45am – A River Runs Through It: Emergency Construction of Eight Force Main River Crossings Following Hurricane Helene

Speakers: James W Shelton; Trey Waagen

This presentation describes the process of designing and constructing both the temporary facilities and eight new force main river crossings, including the damming and bypassing of the entire Catawba river in a 11-week period. This will be a photo rich presentation to provide an immersive experience into the actual construction of this work.

10:20am-10:50am – When Rehabilitation is the Easy Part

Speaker: Mallory Griffin, PE; Darnetta Craig, PE

Comprehensive rehabilitation of seven interceptor and collector sewers within the ALCOSAN regional conveyance system within difficult locations such as rivers, streams, railroads, highways and under buildings. This presentation will outline construction challenges, stakeholder coordination, permitting requirements, and best practices for rehabilitation.

10:55am-11:25am – Follow the Flow: Prioritizing Improvements with Pollutant H&H Modeling

Speaker: Mark Delisio

Lakewood leveraged the USEPA Integrated Planning Framework to prioritize stormwater and wastewater upgrades using pollutant and H&H modeling. This enabled cost-effective infrastructure investments, reduced pollutant loads, and secured a favorable consent decree. The calibrated model guided decisions, improving environmental outcomes while saving the city hundreds of millions in capital costs.

11:30am-12:00pm – Right-Sizing the Retrofit – What Happens When You Need to Double the Pumps

Speakers: Joseph Carbonaro; Carmella Caltagirone

The Tacoma Avenue PS and Retention Basin Improvements Project is a recent sanitary collection system retrofit project undertaken by the City of Lorain. This presentation will discuss the design challenges encountered, the collaborative and innovative solution development, and takeaways for listeners on key considerations for retrofit projects.

ENGINEERING & CONSTRUCTION PROGRAM

8:40am-9:10am – Alcosan's Woods Run Wastewater Treatment Plant Wet Weather Deep Pump Station

Speakers: Jeff Ifft; Jeff Argyros

The Allegheny County Sanitary Authority's \$2B Clean Water Plan program will substantially increase the Woods Run Wastewater Treatment Plant capacity. Located in Pittsburgh, Pennsylvania, the new 120 MGD Wet Weather Pump Station will convey flow from the new Regional Tunnel system for a peak weather treatment capacity of 600 MGD.

9:15am-9:45am – Meeting Stringent Permit Requirements: Design and Implementation of Corry's New WWTP

Speakers: Emily Poach; Mike Starkey

The Corry Municipal Authority is undertaking a significant upgrade to its wastewater treatment plant (WWTP) in response to persistent challenges with wet weather flows and hauled-in waste that have repeatedly overloaded the existing RBC facility. This project addresses pressing regulatory and operational issues faced by the Municipal Authority of the City of Corry. Following the development of an Act 537 Plan in 2023–2024 and the implementation of short-term corrective actions, it was determined that constructing new facilities would be the most effective long-term solution.

10:20am-10:50am – Impacts of Upgrading Medium Voltage Service at a Large Water Treatment Plant

Speaker: Steven Moore, PE

A Pennsylvania Water Treatment Plant underwent a Medium Voltage service upgrade to support a fifth multimedia filter and UV system. Improvements included a 750/1000 kVA transformer, MCC 2 replacement, and 800 kW generator. Attendees will learn strategies for resilient, future-ready electrical design enhancing reliability, safety, and operational performance.

10:55am-11:25am – Microtunneling Installations in Complex Topographical and Urban Settings – Case Histories and Lessons Learned

Speakers: Erez Allouche; Albert Ruiz

In recent years microtunneling is utilized in ever increasing frequency for the installation of critical utilities in complex settings including highly urbanized areas and challenging terrains and geological conditions. The paper presents the case histories and describes the considerations that were part of the design of three technically challenging crossings.

11:30am-12:00pm – DuBois Water and Resource Recovery Facility: Lessons Learned During Design, Construction, and Startup

Speakers: Dylan Cowell, EIT; Benjamin Burns, PE

This presentation is a case study of the new DuBois Water and Resource Recovery Facility project. Discussions will include construction considerations for the new WRRF while maintaining treatment at the existing wastewater plant, startup issues, and a comparison of SBR and trickling filter facilities using the facility's initial data.

STORMWATER PROGRAM

8:40am-9:10am – Establishing a Results-Oriented Stormwater Authority in Ephrata Borough

Speakers: Tyler Erb; Isaac Wakefield

See how to create an effective stormwater authority that achieves real results by following the creation and start-up of the Ephrata Borough Stormwater Authority. Presenters will discuss how the program is structured and share tools they use for tracking, reporting, and communicating to ensure steady progress.

9:15am-9:45am – H&H Modeling in the Era of Intensifying Rainfall

Speaker: Eloise Gibby

Intensifying rainfall patterns are increasing flooding risks across Pennsylvania. This presentation explores recent climate data, the impacts on municipal infrastructure, and strategies for adaptive stormwater management. Attendees will learn how to apply climate-informed planning to build more resilient and flood-ready communities.

10:20am-10:50am – NYCDEP Cloudburst: Designing for Deluge – Cloudburst Strategy, Challenges, and Innovations in Kissena, Queens

Speaker: Andres Garcia

Participants will learn about the unique challenges faced in the Kissena Hub Cloudburst project and how these were addressed. This includes constraints from utility conflicts, lack of catch basins, and the need for iterative modeling approaches in the right-of-way region of the project as well as topography and community-driven requests in the onsite park area of the project.

10:55am-11:25am; 11:30am-12:00pm – Municipal Stormwater Management in Action

Speakers: Nathan Walker; Caroline Sieck

A panel of Pennsylvania municipal stormwater managers will share practical strategies for their asset management, MS4 water quality compliance, and flood mitigation activities that meet their community's local goals. Panelists will participate in a Q&A session to offer insights into local, solutions, and innovations in stormwater infrastructure management.

UTILITY MANAGEMENT/ GOVERNMENT AFFAIRS PROGRAM

8:40am-9:10am – Water-AI Nexus in Practice: Accelerating the Use of Digital Solutions in Pennsylvania and Beyond

Speakers: Brenton McCloskey; Narayani Sunil Pillai

This session shares two practical blueprints for how small and mid-size utilities can use AI today: a Pennsylvania Data Initiative inspired by CaDC for shared analytics, and ambient AI for field documentation. Attendees can expect clear pilots, governance guardrails, and take-home templates to cut admin, improve data, and speed decisions.

9:15am-9:45am – AI Basics for Water & Wastewater Operators: Practical Tools for Everyday Tasks

Speaker: Bryon Killian

Understand what AI is and how it works in plain terms. Use free AI tools to draft, summarize, and clarify work documents. Recognize appropriate use cases and risks in a utility context. Explore advanced tools for organizations ready to invest further.

10:20am-10:50am – The Value of IT/OT Convergence to Enhance Utility Operations

Speaker: Maddy Zimmerman

Utilities are facing increasing demands to be more secure, efficient, and data-driven. Drawing on utility case studies and expert insights, this presentation explores the fundamentals of IT/OT Convergence and how it enables digital transformation by breaking down silos, strengthening cybersecurity, and delivering real-time operational value.

10:55am-11:25am – Securing the Flow: Cyber and OT Resilience in the Age of Emerging Technology

Speakers: Keon McEwen; Matt Crow

Cybersecurity in the water sector is no longer a theoretical concern – it's a daily operational reality. From ransomware attacks that disrupt billing systems to nation-state actors targeting programmable logic controllers (PLCs), the threat landscape has evolved rapidly. As water utilities embrace digital transformation through sound security measures.

11:30am-12:00pm – Peak Performance: Using Hourly AMI data to Improve Cost Allocation

Speaker: David Sayers

When utilities implement AMI it's a game-changer in terms of available data and insights into customer usage patterns. This presentation outlines how utilities use the data beyond basic billing operations, and how the Philadelphia Water Department used AMI hourly and daily peak consumption data to update cost of service allocations.

TUESDAY AFTERNOON

BIOSOLIDS PROGRAM

1:00pm-1:30pm – Codigestion and Food Waster – Lessons Learned from Three Anaerobic Digestion Facility Startups

Speaker: Jason Wert

Over a period of fifteen months, three advanced anaerobic digestion facilities that utilize biosolids and/or food waste for the generation of renewable natural gas (RNG) to produce energy began commissioning and initial operations in the Northeastern United States. These facilities, combined, can handle 240,000 wet tons per year (650 wet tons per day) of biosolids and/or food waste through advanced anaerobic digestion and related processes, including digestate treatment. While every project has its unique challenges, these facilities combined provide an opportunity to review the current state of technology and operations and identify what is successful and what needs further development as an industry.

Technical Program Details

BIOSOLIDS PROGRAM *(CONTINUED)*

1:35pm-2:05pm – Carbonizing Biosolids into PFAS-Free Biochar: A Regional Waste-to-Value Model for Wastewater Utilities

Speaker: John Day

This presentation describes a waste-to-value model that converts wastewater biosolids into PFAS-free, carbon-negative biochar using drying and pyrolysis. It explains how this approach eliminates emerging contaminants, reduces disposal costs, and produces useful products for stormwater and soil applications – offering utilities a scalable path to regulatory compliance and resource recovery.

2:10pm-2:40pm – Breaking the PFAS Cycle – Destruction Methods and Mitigation Techniques for PFAS in Biosolids

Speaker: Maddie Kratzer

This session will review PFAS fate in biosolids, current and emerging disposal practices, and compares destruction technologies with mitigation options like side-stream treatment and source reduction to balance environmental risk and economic benefits of handling methods for PFAS impact biosolids.

3:40pm-4:10pm – Regional Resource Recovery at the Derry Township Municipal Authority

Speakers: Colin O'Brien; William Rehkop III

As part of a regional strategy for sustainable biosolids management, the Derry Township Municipal Authority (Hershey, PA), in partnership with Brown and Caldwell, is implementing an advanced system integrating biosolids cake receiving, conveyance, drying, gasification, and end-product handling.

4:15pm-4:45pm – Fort Wayne's Journey Towards Resilience and Clean Energy – Implementation of a Microgrid Program and RNG Injection

Speaker: Laurel Schaich

Fort Wayne City Utilities' Microgrid and RNG projects boost energy resilience and sustainability, generating 11.5 MW of renewable energy from solar and biogas: enough to power nearly 5,000 homes. Innovative strategies and lessons learned advance the circular water economy and decarbonization efforts.

COLLECTION SYSTEMS PROGRAM

1:00pm-1:30pm – From Data to Decisions: Advancing Wastewater Infrastructure with AI Risk Modeling

Speaker: Chuck Krogh

Discover how artificial intelligence is transforming wastewater infrastructure management. This session explores data-driven risk modeling that enhances traditional PACP assessments by integrating environmental and historical data to predict failure risk, prioritize rehabilitation, and improve capital planning – helping utilities reduce blockages, extend asset life, and optimize system performance.

1:35pm-2:05pm – Interactive Panel: Application of Drones and Sensors for Conducting Rapid and Safe Condition Assessments

Speakers: Jim McQuarrie; Anthony Dowell

Worker safety remains a persistent challenge in operations and maintenance, particularly during inspections of assets in hazardous or confined environments. The integration of unmanned aerial systems (UAS) with advanced sensing technologies – such as high-resolution photogrammetry, LiDAR, and AI/ML-based analytics – is redefining how condition assessments are performed. This presentation details recent applications of drone-enabled inspections that reduce worker exposure, enhance data fidelity, and accelerate structural health evaluations. Methods for multi-scale assessment – spanning asset-, site-, and community-level monitoring – will be discussed, along with case studies demonstrating performance gains, data integration workflows, and implications for predictive maintenance and risk mitigation strategies.

1:35pm-2:05pm – Interactive Panel: Choosing the Right Tools for a Cost-Effective Approach to Condition Assessment

Speakers: Matt Attig, EIT; Michael Hess, PE

Accurate data on stormwater asset condition can help you make smarter decisions about which assets to replace and when. This session will present a new assessment technology, help attendees understand which tools are most appropriate for their needs, and teach them how to combine approaches for maximum value.

2:10pm-2:40pm – Interactive Panel: The Optimization of Manhole Inspections

Speakers: Jamie Workman; Nathan Bragunier

Utilizing Insta360 and ARC GIS technology for manhole inspection applications.

2:10pm-2:40pm – Interactive Panel: Inspection Technology Cocktail: Using AI, GIS, and 360 Cameras to Shake Up Manhole Inspections

Speakers: Andrew J. Filippi, PE, CME; Veronica Cortes

MACP Level II inspections were conducted using RinnoVision Max 360 cameras supplemented with GIS based survey forms and GPS locating. Defect coding and inspection reports were prepared. This presentation will cover the benefits and challenges with using new technologies efficiently and effectively.

3:40pm-4:10pm – NYC South Street Trenchless Sewer Lining

Speakers: David Beesley; Akash Kantharaj

NYC Trenchless Pipe Rehabilitation Project – South Street Seaport. Use of spiral wound PVC pipe to rehabilitate an existing 72" x 96" sewer interceptor without the need of excavation or full bypassing.

4:15pm-4:45pm – Eastern Schnyder County Regional Authority – The Day the Flow Stopped

Speakers: Scott Armbrust; Andy Glitzer

Eastern Schnyder County Regional Authority suffered a catastrophic force main break which resulted in 800,000 gallons of raw sewage spill and the WWTP receiving no flow. This highlights the emergency response and design of a new force main involving crossing a stream and a Route 15 offramp.

ENGINEERING & CONSTRUCTION PROGRAM

1:00pm-1:30pm – 15% Peracetic Acid Disinfection of WWTP Effluent: Design and CAPEX

Speakers: Dr. Michael Kuznetz; Joseph Wagner

This presentation will briefly describe the major piloting, design, Capex and regulatory aspects of the HBSTP 15% Peracetic Acid system as a viable/feasible substitute for hypochlorite disinfection. The system is installed presently (as of 11/01/2025).

1:35pm-2:05pm – The Juice is Worth the Squeeze! How the MOB Process Unlocks Plant Capacity

Speaker: Graig Rosenberger

The City of Winona, MN retrofitted its wastewater treatment plant with the Mobile Organic Biofilm™ (MOB) Process to improve cold-weather nitrification and clarifier performance. Shortly after startup, ammonia levels dropped below 1 mg/L and clarifier capacity increased – all done without any new treatment volume.

2:10pm-2:40pm – The Promise of Pretreatment for PFAS Adsorption

Speaker: Asa Lewis

This study explores how TOC pretreatment enhances PFAS adsorption in water and wastewater treatment systems. Pilot testing at Miami Dade and Western Municipal Water District showed improved media longevity and breakthrough performance using TOC pretreatment. Results support integrating TOC removal to optimize PFAS treatment efficiency and reduce operational costs.

Technical Program Details

3:40pm-4:10pm – Making Your WWTP Improvements Work for You: A Case Study on Adapting Existing Facilities to Optimize Plant Operational Efficiency

Speakers: John J. Scheri; Nicholas Taricani

The Hanover Sewerage Authority has a 4.61 MGD advanced wastewater treatment facility that needed to upgrade aging process equipment. The upgrades were used to make the facility more efficient by reducing electric power and chemical consumption. Effluent nitrogen concentrations have been reduced and the facility is configured for future requirements.

4:15pm-4:45pm – Meeting Today's Demands While Preparing for Tomorrow: PTSA WWTP Expansion Project

Speaker: Abraham King

This presentation highlights the Paradise Township Sewer Authority Wastewater Treatment Plant expansion, which doubles capacity and upgrades treatment to a Modified Bardenpho MBR system. It will cover project drivers, design and construction sequencing, and innovative solutions that maintained continuous operation and compliance during this complex, multi-year infrastructure improvement.

STORMWATER PROGRAM

1:00pm-1:30pm – Right-of-Way Stormwater Projects in Tredyffrin Township

Speaker: Daniel Wible

Tredyffrin Township, PA is one of Chester County's oldest municipalities, with much of it being developed prior to existing stormwater regulations. To improve water quality, reduce flooding, protect its infrastructure, and achieve regulatory compliance, the Township has been implementing stormwater management projects within the public right-of-way for over two decades.

1:35pm-2:05pm; 2:10pm-2:40pm – National Perspectives in Stormwater and Overview of the Stormwater Testing and Evaluation for Products and Practice (STEPP) and How Pennsylvania Communities Can Benefit

Speaker: Seth P. Brown

This presentation will provide a national-level perspective on initiatives, policies, and groups impacting the stormwater sector. Deep-dive information will be provided on a national-level program – the Stormwater Testing and Evaluation for Products and Practices (STEPP) program that provides performance verification services for stormwater infrastructure.

3:40pm-4:10pm – Deluge to Delight: Transforming a Flood-prone Community Park into a Sustainable Recreational Space

Speakers: Adi Pise; Marco Finazzi

A transformative stormwater project in Chester, PA restored Veterans Memorial Park by daylighting a buried stream and creating a 4.4-million-gallon retention basin. Featuring native plantings, trails, and smart flow controls, the project reduced flooding, improved water quality, and revitalized a vital community space through sustainable, equitable design.

4:15pm-4:45pm – Proactive Stormwater Compliance Through AI-Assisted BMP Inspection and Asset Management

Speaker: Raheem Little

This pilot project evaluates using AI-powered photo analysis and digital asset tracking to modernize stormwater BMP inspections. By automating defect identification and documentation, the project aims to reduce emergency repairs, enhance MS4 compliance, and transition stormwater maintenance from reactive to proactive, thereby saving time, lowering costs, and improving environmental outcomes.

UTILITY MANAGEMENT/GOVERNMENT AFFAIRS PROGRAM

1:00pm-1:30pm – Speaking the Same Language: Multi-Generational Communication

Speaker: Kristy Shinn

Are you and your colleagues speaking the same language? With many offices having four to five different generations working together, this can be difficult. The trends of each generation will be discussed, including how they prefer to work and how they prefer to communicate. Participants will leave with information regarding each generation's preferences, best practices, and prompts to start better communicating in their departments and teams.

1:35pm-2:05pm – Understanding Resistance and Managing Change in Work and Life

Speaker: Jean Malafronte, PE

This session is designed for anyone that is increasingly called upon to lead teams, manage projects, and implement organizational change. Whether you're a seasoned employee or an emerging leader, this session equips you with the tools to lead change more effectively – by understanding not just the systems, but the people within them.

2:10pm-2:40pm – Getting Everyone on the Same Page

Speakers: Barry Wolfe; Rob Horvat

This presentation explores the development of a simple document for getting everyone on the same page; followed by the building of job descriptions, performance appraisals, and compensation alternatives that clarify not just expectations, but opportunities – not as what people do, but as what they're hired to deliver.

3:40pm-4:10pm; 4:15pm-4:45pm – DEP Update

Speaker: Jay Patel

WEDNESDAY MORNING

COLLECTION SYSTEMS PROGRAM

8:00am-8:30am – Speaking the Same Language: Aligning Utilities and Hyperscalers for Smarter Growth

Speaker: David Sayers

As data centers continue to expand, their water and wastewater needs are becoming increasingly relevant to utility planning and operations. This presentation provides an overview of what data centers require (cooling, potable, wastewater needs) and offers practical insights on how both parties can collaborate in the evolving data center landscape.

8:35am-9:05am – What to Expect When You Are Expecting... A Data Center: Planning Wastewater Infrastructure for the Arrival of Data Center Facilities

Speaker: Nathan Zaugg

Data center development and its impacts on wastewater facilities must be carefully considered to determine if wastewater flows can be accommodated. Big factors in consideration include the cooling system selection and the resultant effluent, which can be high in inhibitory compounds that may interfere with treatment processes. This presentation will include different approaches to managing these flows by different communities.

Technical Program Details

COLLECTION SYSTEMS PROGRAM *(CONTINUED)*

9:10am-9:40am – Data Centers Drive Expansion of Reclaimed Water Networks Maximizing Development of Sustainable Infrastructure

Speaker: Jason Garz

The growing need for more data centers to support AI technology also results in large cooling water demand and may require extensive expansion or creation of reclaimed water systems. Challenges include: seasonal demand variations, spent reclaimed water return, schedule demands, permitting hurdles, contractor resources, utility resources, and stakeholder engagement and priorities.

10:40am-11:10am – Quizzo: Level-Only Data for Locating I&I – When, Where, and Why?

Speaker: Michael Ping, PE

Optimizing collection system data to locate I&I sources is often a key initiative. Utilizing low-cost level-only data to augment area velocity flow and/or pump station data can greatly enhance efforts to locate I&I. This presentation will focus on when, where, and how to best utilize level-only I&I data.

10:40am-11:10am – Quizzo: Reactive to Predictive: Real-Time Sewer Monitoring is Transforming Wastewater Management at Pennsylvania Utilities

Speakers: Joe Krudys; Jacob Habet

This presentation examines how Pennsylvania utilities like Cranberry Township and West Branch Regional Authority use real-time monitoring and data to shift from reactive to predictive wastewater management. Through continuous visibility, early warnings, and data-driven insights, the utilities have reduced sewer overflows, improved maintenance efficiency, reduced costs and achieved regulatory compliance.

11:15am-11:45am – Quizzo: Rapid and Economic I/I Removal using a Combination of Flow and Level Sensors in Dartmouth, Massachusetts

Speakers: Benjamin Agrawal, PE; Mitchell Martin, PE

Dartmouth, MA used an economical approach to assess sewer inflow and infiltration by combining limited flow meters with numerous level sensors. This method enabled systemwide I/I quantification within six months, rapid identification of priority areas, and cost-effective flow isolation, achieving faster, more actionable results than traditional CCTV-based investigations.

ENGINEERING & CONSTRUCTION PROGRAM

10:40am-11:10am – Regulatory and Operational Impacts of Wastewater Generated from PFAS Treatment

Speakers: Steve D'Ortone, PE; Siani Brown

Managing wastewater generated in startup and operation of PFAS treatment systems is challenging. This presentation highlights PFAS design considerations that are critical to managing wastewater, related regulatory approvals, and ongoing system operation. Wastewater system owners will gain an understanding of the potential impacts of PFAS treatment facilities on their systems.

11:15am-11:45am – Cascade Foam Fractionation for PFAS Removal at WWTPs

Speaker: Ethan Coffin

Non-linear drainage and collapse of foam at a wastewater treatment plant cascade drives extreme enrichment of long-chain PFAS. Scalable foam collection systems are designed to exploit this natural mechanism. This allows for efficient collection of highly concentrated foamate, enabling cost-effective removal of PFAS and other surface-active contaminants.

INDUSTRIAL WASTE/ PRETREATMENT PROGRAM

8:00am-8:30am – Evaluating the Need for Industrial Pretreatment & Developing an EPA-Approved Program

Speaker: Christopher J. Ferdik, PE

POTWs may need to consider an Industrial Pretreatment Program to comply with their NPDES Permit or address treatment process upsets and contaminants in influent and biosolids. Learn how to evaluate the need for an IPP and develop a program step-by-step, using a case study of Freeland Municipal Authority.

8:35am-9:05am – Developing a Non-EPA-Mandated Industrial Pretreatment Program: A Practical Approach for Small and Mid-Sized POTWs

Speaker: Kara Humes

This presentation offers a practical framework for municipalities and utilities that are not required by the U.S. EPA to implement an industrial pretreatment program – but recognize the risks posed by industrial dischargers and wish to proactively manage them. The session will walk through how to establish legal authority, identify and characterize industrial users, implement local limits or best management practices (BMPs), and design simple inspection, sampling, and enforcement tools.

9:10am-9:40am – Palmer Township Case Study – The Power of a FOG Database

Speakers: Stacy Silva; Chris Taylor and Nick Hendricks

This presentation explores Palmer Township's journey in developing a fats, oils, and grease (FOG) database to streamline compliance tracking and communication. By leveraging GIS and CRM tools, the township improved data organization, inspection management, and program accountability, demonstrating how customized digital systems strengthen municipal FOG control and operational efficiency.

10:40am-11:10am – Real-World Experiences in Industrial pH Adjustments

Speaker: Raul Fera

This presentation explores the importance of accurate pH control in wastewater treatment systems. It covers monitoring methods, calibration best practices, operational troubleshooting, and real-world impacts of pH imbalance on nitrification, clarifier performance, and effluent quality, helping operators optimize biological stability and compliance.

11:15am-11:45am – Simplified Industrial Waste Management in a Complex Set of Inter-Municipal Agreements, Ordinances, and Logistical Conditions

Speakers: Ralph Johnson; Brian Soriano

SDE has effectively utilized Microsoft Excel to monitor the industrial waste from one of our client's significant customers. This presentation will walk through the complexities of inter-municipal agreements, and how we are continuing to efficiently monitor their waste to keep all entities involved in compliance with local Ordinances and Agreements.

PROFESSIONAL OPERATORS PROGRAM

8:00am-8:30am – ProcessMiner: An AI Powered Platform for Optimization of the Sludge Dewatering Process

Speaker: Ashkan Eghtesadi-Azar

Optimizing sludge dewatering is challenging for wastewater utilities because sludge characteristics and belt-press operating conditions vary significantly. These fluctuations make it difficult for operators to consistently achieve target cake dryness, often resulting in higher polymer consumptions, increased hauling costs, and unstable operations. Unlike human-dependent methods that rely on manual judgment and limited real-time visibility, Artificial Intelligence (AI) systems can analyze vast amounts of data continuously and respond instantly to process changes,

Technical Program Details

enabling more accurate, consistent, and efficient control. In this project, ProcessMiner leveraged historical and real-time belt-press Programmable Logic Controller (PLC) data at the Kiski Valley Municipal Water Control Authority to continuously optimize the sludge dewatering process. The AI platform analyzed key process variables and recommended ideal machine settings to minimize polymer overdosing, improve sludge density, increase dewatering capacity, and reduce overall operating costs. By deploying sensors at critical control points and integrating them with ProcessMiner's AI solution, the system delivered real-time monitoring and prescriptive recommendations through an intuitive dashboard. Recommended adjustments can be applied either manually or autonomously. Real-time sensors capture sludge influent conditions, dewatering effluent, and dried cake moisture content, enabling the AI platform to track process performance and generate actionable guidance. During a data-driven recommendation trial in July 2025, the dried sludge cake improved from 16% to 20% while optimizing the polymer consumption. The trial also identified key process variables essential for ongoing optimization. Overall, ProcessMiner's AI-enabled platform modernizes sludge dewatering by combining continuous monitoring, predictive insights, and real-time prescriptive control. These results demonstrate that autonomous, data-driven optimization can significantly reduce operating costs, enhance process stability, and improve overall reliability for wastewater facilities.

8:35am-9:05am – Buck the Traditional and Jump into the Cloud; Modern Monitoring Solutions Like Cloud-based SCADA are the Future

Speaker: Nicholas Ilaria

Discover how utilities can overcome workforce and budget challenges with cloud-based SCADA. This session explores AI-driven monitoring, predictive maintenance, and automated flow estimation, offering cost-effective solutions to improve efficiency, reliability, and safety. Real-world use cases highlight practical implementation, pump health monitoring, and smarter planning for sustainable utility operations.

9:10am-9:40am – Development of a Digital Twin for Process Optimization in Advanced Water Treatment Systems

Speaker: Nader Rezaei

A pilot-scale Digital Twin for a potable reuse system (UF, CF, RO, UV/AOP) was deployed at OCWD. It optimizes energy costs, achieving ~20% savings by aligning RO pump power with regional tariffs while maintaining production. It also simulates extreme events, enhancing resilience and sustainability in water reuse operations.

10:40am-11:10am – From SOPs to Simulators: How AI is Reshaping Utility Training

Speaker: Travis Wagner

Discover how Trinnex's AI-powered WWTP Flight Simulator transforms operator training. This immersive tool blends biokinetic modeling, SCADA data, and machine learning to simulate real-world scenarios. Operators receive instant insights via a built-in chatbot, enabling smarter decisions and safer operations, even for plants still under construction.

11:15am-11:45am – Building Financial Resilience: The Strategic Value of Water & Sewer Rate Studies

Speakers: Eric Moore, PE; Marcia Reuben

Discover how modern rate studies build financial resilience and unlock funding opportunities. Learn how aligning rate structures with capital goals helps utilities plan confidently, maintain compliance, and communicate value to their customers.

UTILITY MANAGEMENT/GOVERNMENT AFFAIRS PROGRAM

8:00am-8:30am – Small System Master Planning with Value Engineering

Speaker: Jim Rhoades

Small System Master Planning with Value Engineering, identifies how VE can address small system infrastructure needs. Presentation covers a) VE Basics, b) small system approach, and c) case studies. VE gives a voice to project stakeholders, assists team members in developing an extensive array of ideas, and includes comprehensive documentation.

8:35am-9:05am – Road Mapping for the Future – What is the Best Recipe?

Speakers: Patrick Dunlap; Matt Crow

Numerous municipalities across the United States, and here locally in Pennsylvania, are facing significant needs for infrastructure improvements and operational enhancements at their treatment facilities and conveyance systems to maintain compliance with regulatory standards. Recently Black & Veatch partnered with Lehigh County Authority (LCA) for their Master Plan at their Kline's Island Wastewater Treatment Plant (KIWWTP).

9:10am-9:40am – Establishing a Vertical Asset Management Program at a 225-Year-Old Integrated Utility

Speaker: Victoria Frazier

PWD is a 250-year-old utility with over 30,000 vertical assets. An asset management program allows PWD to develop a better understanding of its capital assets and assists with financial forecasting. The AMP at PWD has been underway since 2019 and is nearing the end of its first cycle of assessments.

10:40am-11:10am – Designing for the Future: Climate Adaptation Strategies That Get Funded

Speakers: Stephanie Cuthbert, PE; Craig Vergilio, EIT

RVE evaluated flood risks at CCMUA's Wastewater Treatment Plant, assessing alternatives including perimeter walls, raising critical infrastructure, and selective facility mitigation. The study prioritized operational continuity, financial risk reduction, and regulatory compliance. This presentation highlights technical strategies, cost-effective solutions, and climate adaptation planning to enhance WWTP resiliency against flooding and extreme weather events.

11:15am-11:45am – Making Cents of It All

Speakers: Tori Morgan; Natalie O'Connor

This presentation focuses on the various avenues for funding wastewater projects in Pennsylvania.

WEDNESDAY AFTERNOON

COLLECTION SYSTEMS PROGRAM

1:00pm-1:30pm – Lessons Learned from Separating Stormwater from Combined Sewers in Lancaster

Speakers: Susan Beck; Molly Deger

Through the case studies presented, audience participants will gain an understanding of the planning and design process, implementation lessons learned, and opportunities to integrate stormwater separations with other capital projects, proving that stormwater separation is a cost-effective strategy to reduce combined sewer overflows.

Technical Program Details

COLLECTION SYSTEMS PROGRAM *(CONTINUED)*

1:35pm-2:05pm – Capital Region Water’s City Beautiful H2O Program Plan: An Innovative Approach to Affordably Managing Combined Sewer Overflows

Speaker: Jeffery Eveland

Capital Region Water developed the City Beautiful H2O Program Plan as a long-term, integrated approach for wastewater and stormwater management in the City of Harrisburg. The plan incorporates several CSO control technologies and is projected to significantly improve local waterways while keeping ratepayers’ well-being at the forefront.

2:10pm-2:40pm – Green City, Clean Waters: Philadelphia’s 14-Year Journey of Managing CSOs

Speakers: Rajesh Rajan; Jeremy Chadwick

Philadelphia’s Green City, Clean Waters program, launched in 2011, aims to meet Clean Water Act requirements by reducing combined sewer overflows (CSOs). The program has successfully reduced CSO volume by over 3 billion gallons annually and constructed Green Stormwater Infrastructure equivalent to 2,150 Greened Acres.

3:40pm-4:10pm – Water Quality Modeling in Philadelphia for Planning and Regulatory Reporting

Speaker: Eileen Althouse

PWD has developed collection system and receiving water quality models that have become critical tools to evaluate regulatory compliance and management strategies impacting water resources of the region. This presentation highlights the advantages of using models as tools for understanding, planning, and reacting to emerging water quality issues in a utility managing wastewater, stormwater, and drinking water resources.

4:15pm-4:45pm – Lessons Learned After a CSO Flow Modeling Study

Speaker: Kyra R Boston

The presentation will focus on the challenges faced during data collection, the collaboration and process that led to successful meter calibration, and the consequent analysis to submit the CSO Flow Modeling study. During this review, the presentation will also highlight the various nuances of the study driven by use of the LTCP Small Communities regulations.

DRINKING WATER PROGRAM

1:00pm-1:30pm – Back to Basics: Review of UV Disinfection

Speaker: Patrick Bollman, PE

Explore the fundamentals of UV disinfection and its expanding role in municipal water treatment. Learn key design, validation, and installation considerations for wastewater, reuse, and drinking water applications – plus how to select the right equipment for your needs. Perfect for engineers, operators, and decision-makers navigating UV technology.

1:35pm-2:05pm – Why 1,4-Dioxane Should Be on Every Engineer’s Radar – and What to Do About It

Speaker: Joseph Mingle

RVE and the Merchantville-Pennsauken Water Commission designed New Jersey’s first treatment facility to address PFOA, PFOS, and 1,4-Dioxane using Advanced Oxidation and Granular Activated Carbon. This presentation explores the project’s innovative design, regulatory drivers, and collaborative approach that delivered a state-of-the-art solution for emerging contaminants and enhanced water quality.

2:10pm-2:40pm – Revolutionary PFAS Recovery Using Continuous Ultra-Filtration and Colloidal Activated Carbon

Speaker: Tony Powell

Pilot studies in Tennessee demonstrated complete PFAS removal using a Continuous Ultra-Filtration and Colloidal Activated Carbon system. Achieving 99.99% water recovery and no liquid waste, the process effectively addressed multiple contaminants. Results confirm a sustainable, scalable solution supporting zero-liquid-discharge goals and enhanced regulatory compliance.

3:40pm-4:10pm – Pilot Study on PFAS Removal: Evaluating GAC and IX Media Performance at Belmont Water Treatment Plant

Speakers: Sina Moharramzadeh; Maria Luciani

With increasing concern over PFAS in drinking water, PWD initiated a PFAS removal Technology alternatives evaluation, including an RSSCT and a 17-month pilot evaluating GAC and IX at Belmont WTP. This presentation will highlight key lessons, operational challenges, media-selection insights from RSSCT, and potential causes of IX column failure.

4:15pm-4:45pm – Discussing the Gap Between the Capabilities of PFAS-Relevant Destruction Technologies and the Needs of the Municipal Water Sector

Speaker: Kara DeGroote

This presentation combines over a decade of experience researching, developing, and tracking PFAS-Relevant Destruction (PRD) technologies with institutional knowledge of technology deployment at the municipal scale. The understanding and applicability gap between PRD technologies and needs/demands at the municipal scale will be discussed to clarify what is currently feasible.

ENGINEERING & CONSTRUCTION PROGRAM

1:00pm-1:30pm – What If You Could Predict Failure Before It Happens? Welcome to the Future of Asset Management

Speaker: Stephanie Cuthbert, PE

Discover how artificial intelligence is transforming water utility management. This session explores how RVE and VODA.ai use predictive modelling to identify vulnerable pipelines, prevent failures, and optimize capital planning. Learn how data-driven asset management helps utilities reduce water loss, extend infrastructure life, and make smarter, more proactive decisions.

1:35pm-2:05pm – Philadelphia Water Department Northeast WPCP – A Tale of Two Sludge Screen Pilots

Speaker: Isaac Katz

Due to the combined nature of its system, PWD has historically dealt with large volumes of rags, debris and mopheads making their way through their preliminary treatment facilities and into the sludge processes. To address these issues, PWD has performed pilot testing of two separate technologies that screen primary sludge.

2:10pm-2:40pm – Design of Aquaculture Wastewater Treatment in Corry, PA

Speakers: Sean Riley; Samuel Brown

PA Fish and Boat Commission partnered with HDR to design a wastewater treatment system for the Corry State Fish Hatchery, reducing discharge to the local WWTP while meeting NPDES requirements. This presentation addresses aquaculture-specific challenges, site constraints, and regulatory compliance, supporting PFBC’s mission to protect and enhance Pennsylvania’s aquatic resources.

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3:40pm-4:10pm – Industry-Academia Collaboration in Undergraduate Civil Engineering

Speakers: Shannon L. Isovitsch Parks, Ph.D, PE, Daniel B. Slagle, PE

This presentation highlights how industry collaboration with academia enhances workforce development, provides mentoring opportunities, and introduces practitioners to fresh perspectives on infrastructure challenges. Attendees will gain insight into a replicable model for engaging students in meaningful design work that supports the water and wastewater sectors.

4:15pm-4:45pm – Wet-Weather Resiliency and Effectiveness of Two Key Treatment Improvements

Speakers: Jim Fitzpatrick; Matt Crow

About a dozen North American utilities are pioneering two treatment technologies that cost-effectively improve wet-weather resiliency and year-round water quality. Case studies of two utilities featuring dual purpose filters and innovative ant-scour feed well design to improve effluent quality will be featured.

INDUSTRIAL WASTE/ PRETREATMENT PROGRAM

1:00pm-1:30pm – Cheese Steaks for Everyone

Speaker: Robert Maybury, S4, C4, N4, CPM

Industrial discussion on overcoming Fats, Oil, and Grease (FOG) challenges at a major meat processing facility. Initial wastewater design failed permit limits, prompting engineering of a \$12M treatment system. The new system, constructed in 2021, successfully removes high grease concentrations, ensuring compliance and uninterrupted operations.

1:35pm-2:05pm; 2:10pm-2:40pm – Innovative Technical Approach for Metals Removal and pH Control Using Electrochemistry (with Zero Valent Iron) Followed by Neutralization with On-site Generated Carbonic Acid

Speaker: Dean Ritts, PE, CEM, LEED AP O+M

Recent technological advancements are being tested in pilot studies for managing mine-impacted waters. These innovations have the potential for broader application in other industrial sectors, such as metal plating, coal-fired power plants, and steel mills, where dissolved metals are also a concern. This section details an innovative treatment system that utilizes electrochemistry and on-site carbonic acid generation, with a particular focus on the removal of selenium.

PROFESSIONAL OPERATORS PROGRAM

1:00pm-1:30pm – Ballasted Floc in an SBR, That's Heavy!

Speakers: Dale Miller; Ashley O'Connor

Upgrading an SBR loaded at 90% of its capacity, while needing to take one basin out of service at a time. This can be a daunting task. With forward thinking and some ingenuity, it can be done. Join us to see how it's done.

1:35pm-2:05pm – Eliminating the Wet Well with Direct In-Line Pumping

Speaker: Rebecca Turner

We will discuss the benefits of eliminating the wet well with direct in-line pumping. This technology provides a smart, solids passing, self-cleaning solution that has been proven for municipal, commercial, and industrial wastewater collection systems. Learn how issues from FOG, wipes, odors, and wet well maintenance are completely eradicated.

2:10pm-2:40pm – Navigating the Recovery of a Wastewater Treatment Plant: Lessons Learned and a Framework for Utility Leaders

Speakers: Samantha O'Connor; Benjamin Jewell

When a 200-MGD wastewater treatment plant experienced major process failure, the Philadelphia Water Department faced the dual challenge of restoring operations and rebuilding trust. This presentation outlines a practical "how-to" framework for utility leaders managing large, complex treatment facilities through crisis. Drawing from real-world experience, it explores diagnosing root causes, reestablishing data integrity, engaging regulators, motivating staff, and implementing sustainable management systems. Attendees will gain insights into leadership, transparency, and the technical strategies that guided the plant's recovery and return to compliance – offering a roadmap for resilient utility management.

3:40pm-4:10pm – Screenless IFAS System Eliminates Media Loss and Reduces O&M Costs for the City of Peterborough

Speaker: Lauren Takitch

The City of Peterborough Wastewater Treatment Plant in Ontario replaced its 18 MGD MBBR system with a WavTex woven media IFAS system to overcome operational challenges including media breakage/loss. Following a 9-month Process Verification period, the City was able to verify that the new system met the effluent requirements for the full rated capacity while addressing the O&M issues.

4:15pm-4:45pm – Achieve Aeration Redundancy, Operational Flexibility and Superior O&M with Retrievable Aeration Systems

Speaker: Mark Mayer

This presentation will demonstrate how to achieve aeration redundancy, operational flexibility, simplified equipment maintenance, and superior operations with retrievable aeration systems.

THURSDAY MORNING

ENGINEERING & CONSTRUCTION PROGRAM

8:00am-8:30am – Maximizing Capacity, Minimizing Footprint: The Case for Pile Cloth Media Filtration

Speaker: Vedansh Gupta

PCMF offers a compact, energy-efficient solution for primary and wet weather treatment. This session highlights case studies where utilities increased capacity, captured more resources, and eliminated untreated discharges while reducing reliance on storage.

8:35am-9:05am – Scaling Up Smarter: Design for a Modern WWTP

Speaker: Vishal Vaidyanathan

Learn how advanced biological treatment and strategic solids handling upgrades can transform municipal wastewater facilities into scalable, efficient systems. This session highlights design innovations, phased construction strategies, and operational solutions that balance regulatory compliance, sustainability, and lifecycle cost – providing practical insights for modernizing treatment infrastructure.

9:10am-9:40am – Membrane Aerated Biofilm Reactor (MABR) – Energy Efficient Biological Process for Nutrient Reduction

Speaker: Timothy Brett, P.E.

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 have strained municipal WWTP budgets. This presentation will introduce the audience to the membrane aerated biofilm reactor (MABR) as an energy-efficient technology delivering oxygen that also reduces total nitrogen. This is achieved by passively diffusing oxygen through a gas-permeable membrane into a nitrifying biofilm that grows on the membrane surface, while simultaneously, denitrification occurs in the surrounding mixed liquor.

Technical Program Details

ENGINEERING & CONSTRUCTION PROGRAM (CONTINUED)

10:10am-10:40am – Demonstration of High Specific Gravity MBBR Carriers to Intensify Performance of a Sequencing Batch Reactor

Speakers: Rachel Hanson; Andrew Moore

The successful implementation of Integrated Fixed-Film Activated Sludge (IFAS) technology at Lehigh County Authority's Sand Spring WWTP highlights a cost-effective, innovative approach to wastewater treatment for small facilities. By utilizing customized, high-specific gravity carriers, the process improved ammonia and nitrogen removal under challenging conditions, ensuring compliance with stringent nutrient limits.

10:45am-11:15am – One Water Planning, Maximizing Benefits to Communities

Speakers: Jo Ann Jackson; Matt Crow

Communities across the US are facing rapid population growth, land use changes, scarcity of water supplies, escalating water supply costs, impaired water quality, impacted watershed, and climate change impacts. These challenges may be location specific, but they are occurring in both arid and water rich regions, coastal and inland areas.

SAFETY PROGRAM

8:00am-8:30am – Safety in Design: Introduction/Overview

EH&S is an inherent part of the design process and in many ways can be considered an engineering discipline. This presentation is an overview of the Prevention through Design/Safety in Design methodology and how it can be applied on water infrastructure projects according to standard design processes and client requirements.

8:35am-9:05am – Thinking Outside the Box: A Review of Confined Space Identification and Determination – 0.5 Hours

Speaker: Ed Kauffman

This presentation challenges the traditional approaches to confined space identification by exploring the nuances and complexities of variety of circumstantial hazards present in confined spaces. Attendees will gain a deeper understanding of regulatory definitions, practical assessment techniques, and real-world examples that highlight the importance of critical thinking in confined space determination. Whether you're new to the topic or looking to refine your evaluation process, this session will provide valuable insights to help ensure compliance, enhance safety, and promote a more thoughtful approach to hazard recognition.

9:10 am-9:40am – Safety in Design: Introduction to NFPA 820: Fire Protection in Wastewater Treatment and Collection Facilities

Speaker: Jared Lewis

NFPA 820 is the National Fire Protection Association standard that addresses fire and explosion protection in wastewater treatment and collection facilities. Compliance with NFPA 820 is crucial because wastewater treatment plants handle flammable gases, such as methane and hydrogen sulfide, which can accumulate and present significant fire and explosion risks. Adhering to NFPA 820 ensures that facilities use appropriate electrical classifications, ventilation practices, and construction standards to minimize these hazards. Compliance directly relates to wastewater operator safety by reducing the likelihood of catastrophic incidents that could cause injury or death. NFPA 820 provides guidelines for safe facility design, equipment installations, and operational practices, all of which help protect operators from exposure to dangerous gases, fires, and explosions. Ultimately, following NFPA 820 safeguards both the facility and its personnel, reinforcing a culture of safety and regulatory responsibility.

10:10am-10:40am – Safety in Design: Introduction to Process Safety Management at Drinking Water and Wastewater Facilities – 0.5 Hours

Speaker: Jared Lewis

Process Hazard Analysis (PHA) methods play a critical role in identifying, evaluating, and controlling hazards associated with hazardous processes at drinking water and wastewater treatment facilities. In accordance with OSHA's Process Safety Management (PSM) regulations, PHAs systematically assess processes involving highly hazardous chemicals – such as chlorine, ammonia, and flammable gases – commonly used or generated in these facilities. Techniques like Hazard and Operability Studies (HAZOP), What-If analyses, and Failure Mode and Effects Analysis (FMEA) are utilized to pinpoint potential failure scenarios, assess the adequacy of existing safeguards, and recommend improvements to mitigate risks.

10:45am-11:15am – Introduction to Industrial Hygiene: Anticipating, Identifying, and Controlling Hazardous Workplace Conditions – 0.5 Hours

Speaker: Ashley Figurski

This session provides a foundational overview of industrial hygiene and its essential role in safeguarding worker health and safety. The presentation will examine the core methodology used in industrial hygiene – anticipating, recognizing, evaluating, and controlling common workplace hazards. These hazards include chemical, physical, biological, ergonomic, and psychosocial risks. Attendees will gain insight into regulatory requirements, common exposure pathways, and the hierarchy of risk controls used to mitigate identified hazards.

Workshops

We're planning a series of engaging workshops designed to offer practical insights and hands-on learning opportunities. While full details are still being finalized, be sure to watch your email and check our website for updates as they become available.

Not a member of PWEA?

Join at www.pwea.org to receive member pricing for the PennTec Conference and PWEA training events, plus valuable benefits like the Keystone Water Quality Manager, monthly e-Newsletter, legislative and technical updates, and advance notice of continuing education.

Questions? Contact the PWEA Administrative Office at 717-642-9500 or pwea@pwea.org.



2026 Conference Attendee Pricing



All Conference registration is online, please visit www.pwea.org/annual_technical_conference.php.

CONFERENCE REGISTRATION

Includes technical sessions, continental breakfast, lunch, receptions and access to the Exhibit Hall.

	EARLY BIRD (SAVE \$50) BY APRIL 19	APRIL 20-MAY 1	AFTER MAY 1
Full Conference			
PWEA Member	\$515	\$565	\$615
Non-Member	\$625	\$675	\$725
Tuesday Only			
PWEA Member	\$285	\$335	\$385
Non-Member	\$350	\$400	\$450
Wednesday Only			
PWEA Member	\$285	\$335	\$385
Non-Member	\$350	\$400	\$450
Tuesday Only Young Professional Registration			
PWEA Member	\$190	\$240	\$290
Non-Member	\$255	\$305	\$355
• Discount Ticket with SYP Registration: PO Plant Tour - \$20			
Wednesday Only Young Professional Registration			
PWEA Member	\$190	\$240	\$290
Non-Member	\$255	\$305	\$355

NETWORKING EVENTS

Monday	
Golf Tournament	
• Single Golfer	\$150 per person
• Foursome discount	\$450 per foursome
 100th Anniversary Reception	no charge, RSVPs required
 100th Anniversary Gala	\$100 per person

Tuesday	
PO Plant Tour	\$35 per person
President's Reception	no charge, RSVPs required
Awards Reception	no charge, RSVPs required
Tailgate Dinner & Cornhole Tournament	\$70 per person

Wednesday	
Women in Water Luncheon	no charge, RSVPs required
Wednesday Reception	no charge, RSVPs required

Methods of Payment:

To qualify for the early registration discount, payment must be postmarked by April 19th.

- **Check** (payable to PWEA) – Due within 10 business days of online registration.
- **Credit Card**

Cancellation/ Substitution Policy

No refunds granted after May 31. A \$50 cancellation fee will be assessed on all refund requests received by May 31. All refunds must be requested in writing. Substitutions are permitted with a \$25 per person substitution fee. Substitutions may be made until May 31 and must be made in writing.



Save the Date

June 5-9, 2027

Penn Stater Hotel and Conference Center, State College, PA

We are excited to announce that the Pennsylvania Water Environment Association's (PWEA) Annual Technical Conference & Exhibition, PennTec 2027, will be held at The Penn Stater Hotel & Conference Center in State College, PA.

This premier event brings together professionals from the water quality industry for technical sessions, workshops, and networking opportunities. Stay tuned for more information on registration and program details.

We look forward to seeing you in State College for PennTec 2027!