

PennTec 2025 REGISTRATION PROGRAM

June 22-25, 2025 | Kalahari Resort & Convention Center
Pocono Manor, PA

Conference at a Glance

(as of January 31, 2025)

Visit www.pwea.org for the most current program schedule.



SUNDAY, JUNE 22

TBD	Annual Golf Tournament Pocono Manor Golf Course
11:00am-3:00pm	Community Service Project
4:00pm-5:00pm	Registration Opens
5:30pm-7:30pm	Vendor Get-Together at Redd's Piano Bar www.kalahariresorts.com/pennsylvania/things-to-do/dining/redds-piano-bar-and-lounge with Exhibits & Sponsors Committee

MONDAY, JUNE 23

7:00am-5:00pm	Registration Opens
7:00am-8:00am	Continental Breakfast
7:30am-8:30am	Keynote Presentation
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	Exhibit Hall Open with Break Refreshments
12:00pm-1:00pm	Exhibit Hall Open with Complimentary 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	Exhibit Hall Open with Break Refreshments
3:40pm-4:45pm	Collection Systems Mobile Sessions 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

TUESDAY, JUNE 24

7:00am-5:00pm	Registration Opens
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>Artificial Intelligence</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	Exhibit Hall Open with Break Refreshments
11:45am-1:00pm	Exhibit Hall Break with Complimentary Lunch
11:45am-1:00pm	Student Research Poster Presentations
11:45am-1:00pm	Women in Water Luncheon
12:55pm-1:00pm	5-Minute Vendor 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>
2:40pm-3:40pm	Exhibit Hall Open with Break Refreshments
4:45pm-5:45pm	Beer & Pretzels/Wine & Cheese Reception in Exhibit Hall
4:45pm-5:45pm	Operator Olympics in Exhibit Hall

WEDNESDAY, JUNE 25

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>
8:00am-11:30am	
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 2025 Conference Committee, we invite you to attend PWEA's 96th Annual Technical Conference and Exhibition (PennTec 2025) on June 22-25 at the Kalahari Resort & Convention Center in Pocono Manor, PA.

This year's Conference Program includes a wide range of topics related to water quality. In addition to the Conference technical sessions, we are also presenting workshops which have been approved by the PA DEP for additional contact hours for water and/or wastewater operator licenses. By attending these workshops, you could earn **up to 19.0 DEP Contact Hours, or up to 19.0 Continuing Education Hours**, in just a few days!

A very important part of the Conference is the vendor exhibition. By visiting the exhibits, you will gain insight into new and innovative solutions and discover new products and equipment that will help you do your job in a more efficient and safer manner. We encourage you to talk to the vendors about what is most important to you.

The Conference includes many networking opportunities for you to meet and interact with your colleagues. The Students & Young Professionals (SYP) Committee is organizing a **Community Service Project** for Sunday. The **Annual PWEA Golf Tournament** will be on Sunday this year.

On Monday, the Professional Operators Committee will host a **Plant Tour**. Also on Monday is the **President's Reception**; the **Annual PWEA Awards Ceremony & Reception**; and the **Tailgate Dinner & Cornhole Tournament**.

On Tuesday, there is the **Women in Water Luncheon**; the **Beer & Pretzels/ Wine & Cheese Reception**; and **Operator Olympics**.

We believe the PennTec Conference will provide everything you need under one roof – education, vendor contacts, and networking. We look forward to seeing you there!



James Degnan
Chair, PennTec 2025
Conference Committee



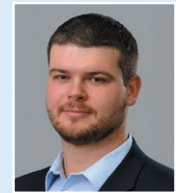
William LaPorte
PWEA President



Robert W. Dengler II
Chair, Penntec 2025
Program Committee



Matt Warfel
Co Vice-Chair,
Penntec 2025
Program Committee



Garrett Stoy
Co Vice-Chair,
Penntec 2025
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 what is 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 Young Professional (YP) is age 35 years or younger. A special registration category is available for YPs who wish to attend the Conference on Monday or Tuesday. The discounted YP fee includes access to the Exhibit Hall and regular educational Conference sessions, plus continental breakfast, breaks and lunch. This registration also includes an optional discounted ticket for the PO Plant Tour on Monday. Driver's license ID is required when checking in on-site.

Spouse/Life Partner Registration

With each FULL Conference registration, a spouse/life partner may be registered at no charge. 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 if the registration form is submitted with a photocopy of current student identification. 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 enter the Exhibit Hall, conference sessions, workshops, and food areas. **Badges will be checked, so please wear your badge in a visible area at all times.**

Wireless Internet Service

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, if they choose to do so.

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

	Technical Program Sessions	Workshops	Monday Exhibit Hall; Continental Breakfast; Breaks; Lunch; Reception; Annual Awards Ceremony	Monday PO Plant Tour	Monday Tailgate Dinner	Tuesday Exhibit Hall; Continental Breakfast; Breaks; Lunch; Women's Summit; Reception	Wednesday Continental Breakfast; Break
Full Conference	Yes	Discounted	Yes	No	No	Yes	Yes
Monday only	Yes	No	Yes	No	No	No	No
Monday only, YPs	Yes	No	Yes	Discounted	No	No	No
Tuesday only	Yes	No	No	No	No	Yes	No
Tuesday only, YPs	Yes	No	No	No	No	Yes	No
Spouse Life Partner Registration	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 a very important part of the PennTec Conference. The exhibits will open on Monday at 9:45am and will close on Tuesday at 5:30pm. Visiting the vendors will be informational, educational, and it will also be fun!

Raffle Prizes

Prizes will be raffled at different times throughout the Conference. Attendees registered for the conference will be given raffle tickets, and there will be marked containers placed randomly throughout the Exhibit Hall – one for each prize. Attendees can put as many of their tickets as they'd like in each marked container. Raffle tickets will be drawn in the Exhibit Hall at various times during the Conference. You must be present to win. Exhibitor representatives are not eligible for these drawings.



Exhibit Hall Food Functions

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



President's Reception

Monday, 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.



Beer & Pretzels/Wine & Cheese Reception

Tuesday, 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.



Exhibit Hall Bingo

The PWEA Exhibits & Sponsors Committee organized this event for Monday and Tuesday during the Conference.

How it Works:

Conference attendees will receive a Bingo card in their registration packets, along with a list of participating exhibitor names. Each participating exhibitor will be assigned a letter/number from the Bingo cards. Attendees will need to visit the exhibitors in order to have their cards stamped.

Once the squares are stamped horizontally, vertically or on the diagonal, the attendee will then turn in the card to a designated individual or booth just before the last break of each day (Monday or Tuesday) for confirmation. Attendees must be present to win and can only turn in one card, either on Monday or on Tuesday.

Prizes will be awarded to all Bingo winners during the last Exhibit Hall break on Monday and on Tuesday. Winners will also be entered into a Prize Drawing on Monday and on Tuesday.

Car Racing in the Exhibit Hall

The Exhibits & Sponsors Committee is hosting the 3rd 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

Kettle Creek Environmental Education Center

Sunday, 11:00am-3:00pm

The community service project at PennTec will take place at the Kettle Creek Environmental Education Center (KCEEC).

The education center is run by the Monroe County Conservation District (MCCD) and features a critter room, art gallery, and gift shop with books and trail guides. Additionally, the site features over 150 acres of wildlife sanctuary, 3 miles of trails, and a children's discovery area.

The MCCD regularly holds events for the public, including summer camps, bog tours, and maple sugaring to name a few. Volunteers will be doing basic clean up tasks around the Center and nearby areas of the wildlife sanctuary.

There will also be opportunities to improve facilities by the construction of bird boxes and a new feature at the children's discovery area.

Volunteers are asked to bring their own work gloves, if possible. Water, snacks, and lunch will be provided in addition to a brief facility tour following the volunteer activities.

Participation is open to anyone; conference registration is not required. 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

Sunday, Time TBD

Join your colleagues for a friendly game of golf at the Pocono Manor Golf Course in Pocono Manor, PA. The course is located about 15 minutes from the venue. Refreshments and prizes will be provided. Net proceeds from the tournament will benefit PWEA's Operations Challenge Program.

Cost is \$120 per person (or \$450 per foursome), and includes greens fee, golf cart, lunch and refreshments. You must register by May31st; 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.



Special Events

Vendor Get-Together

Sunday, 5:30-7:30pm

Exhibitors are invited to attend this informal gathering organized by the PWEA Exhibits & Sponsors Committee. Come meet the committee and PWEA leaders at Redd's Piano Bar. Details will be sent to all confirmed exhibitors via email, closer to event date.



PWEA Annual Business Meeting

Monday, 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

Monday, 1:00-3:30pm

*Hosted by the Professional Operators Committee,
Mount Pocono Municipal Authority, and
Eastern Pennsylvania Wastewater Pollution
Control Association*

PennTec 
2025 96th Annual Technical
Conference & Exhibition

More information to come. Visit www.pwea.org for details.

Special Events

PWEA Annual Awards Ceremony & Reception

Monday, 5:45-7:00pm

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

Monday, 7:15-9:30pm

The PWEA Students & Young Professionals Committee will host a 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, professionally and competitively. Attendees are encouraged to don their favorite team's tailgating attire.

Pre-registration is required. Tickets are \$55 per person. Dinner and a drink ticket are included.



Women in Water Luncheon

Tuesday, 11:45am-1:00pm

Join your fellow 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.



PWEA Student Research Poster Contest

Tuesday, 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.



Special Events

Operator Olympics

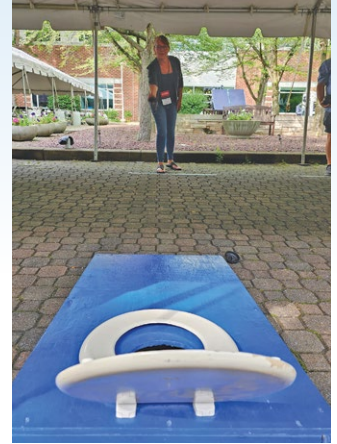
Tuesday, 4:45-5:45pm

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 spend the afternoon?

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



Back by popular demand is the PWEA Biosolids Beauty Contest!

The Exhibitor & Sponsor's and Biosolids Committees are once again hosting this fun contest at the 2025 PennTec Conference. Please be sure to stop by the designated Booth (location to be announced) in order to view the submissions and to see how creative our Biosolids Professionals can be! The winner will be announced during the lunch break on Tuesday, June 24, and

receive a prize and a trophy with a year of bragging rights for the winner. Who will be crowned winner of the PWEA 2025 Biosolids Beauty Contest?

Please contact Chris via email (chrisb@chartermachine.com) or phone (732-425-7489) to sign up for the contest.

No entries will be accepted after June 7. All displays must be turned in at the Booth (location to be announced), on or before 9 am on Monday June 22, 2025; and must be complete and ready for viewing upon delivery.

Contestants will not be permitted to make any changes and/or modifications to their displays once they are turned in.

NOTE: Contest is only open to those individuals who are registered to attend PennTec 2025.



Hotel Accommodations

Kalahari Resort & Convention Center • 250 Kalahari Blvd • Pocono Manor, PA 18349

A block of rooms has been reserved at the Kalahari Resort for PennTec 2025. Reservations must be made by May 22, 2025. Rooms may not be available after this date. Discounted room rates are as follows (does not include room tax) – children 2 and under stay free:

- \$183.00 Double Queen (rate includes up to 4 guests; 2 guests may be added at \$50 per person, per night)
- \$183.00 Double Queen Balcony (rate includes up to 4 guests; 2 guests may be added at \$50 per person, per night)
- Room rate includes up to 4 complimentary Waterpark Passes per room reserved, based on total occupancy.
- Hotel Deposit Policy: Deposit in the amount of one night (plus tax) is due at time reservation is made.
- Hotel Cancellation Policy: Reservations canceled 72 hours or more prior to arrival receive full refund less \$30.00 processing fee; less than 72 hours prior to arrival forfeits entire deposit.

- To make a reservation, call 1-800-KALAHARI (1-800-525-2427) and mention the PWEA Room Block, to receive the Conference rates.
- Reservations may also be made online by visiting <https://book.passkey.com/e/50881762>.



PWEA PennTec 2025 Biosolids Beauty Contest Form

WWTP INFORMATION

Plant Name: _____

Plant Address: _____

Type/Class of Biosolids: _____ Plant Average Flow (MGD): _____

Email: _____

CONTACT INFO

First Name: _____

Last Name: _____

Cell Phone: _____ Work Phone: _____

Email: _____

**Please submit your completed Biosolids Beauty Contest entry form to Christopher Boyd,
on or before June 7, 2025 via email at chrisb@chartermachine.com, or via mail at:**

Christopher Boyd
Director of Sales
Charter Machine Co
55 Wester Avenue
Metuchen, NJ 08840

Please contact Chris via email (chrisb@chartermachine.com) or phone (732-425-7489) with any questions. No entries will be accepted after June 7. All displays must be turned in at the Booth (location to be announced), on or before 9 am on Monday June, 23, 2025; and must be complete and ready for viewing upon delivery. Contestants will not be permitted to make any changes and/or modifications to their displays once they are turned in.

NOTE: Contest is only open to those individuals who are registered to attend PennTec 2025.

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.

MONDAY MORNING

BIOSOLIDS PROGRAM

Moderators: Charles Winslow; Richard Valiga

8:40am-9:10am – PFAS in Wastewater – From Research to Reality

Speaker: Samir Mathur, CDM Smith

This presentation will provide an overview of the cutting-edge research related to PFAS in wastewater, as well as guidance on how utility managers and operators in Pennsylvania can apply this research to address real-life PFAS issues at their specific WRRF.

9:15am-9:45am – Tracking PFAS in a Biosolids Gasification Facility Operating Full Scale

Speaker: Mohammad Abu-Orf, PhD, Hazen and Sawyer

The presentation will focus on PFAS measurement in a full-scale gasification facility. PFAS measurements were conducted at the end of March 2024, including the first PFAS air testing at a full-scale gasification.

10:20am-10:50am – Hydrothermal Carbonization – A Regional Solution for Biosolids Management

Speaker: Jeremy Taylor, SoMax Circular Solutions

SoMax Circular Solutions conducted a feasibility study to assess the development of a centralized Hydrothermal Carbonization (HTC) facility in the Philadelphia suburbs, designed to accept biosolids from four WRRFs. The study shows long-term stability and savings for contributing WRRFs. This presentation will share the results of the study, and the most recent developments in HTC.

10:55am-11:25am – Innovative Solutions for Biosolids Management: Exploring Advanced Thermal Drying Technologies

Speaker: Karthik Reddy Manchala, GHD

This presentation explores advanced thermal drying technologies for municipal biosolids management, focusing on energy-efficient designs, product quality, and emerging innovations like PFAS pretreatment. It highlights key design criteria, trade-offs, and practical case studies, showcasing sustainable solutions for reducing biosolid volumes, improving disposal logistics, and enabling safe reuse or advanced processing.

11:30am-12:00pm – Transforming Sludge: Supercritical Water Oxidation (SCWO) for a PFAS-Free Future

Speaker: Naomi Senehi, 374Water

Supercritical water oxidation (SCWO) is applied to numerous municipal and industrial biosolids to illustrate consistent, effective conversion to inert PFAS-free mineral effluent available for safe reuse. Empirical data from a case study is used to illustrate how the technology can be installed on site with minimal footprint and within budget.

COLLECTIONS SYSTEMS PROGRAM

Moderators: Nick Modany; Lucas Chapman

8:40am-9:10am – Sewer Sociology

Speaker: Peter Frick, ADS Environmental Services

This paper will present a collection of interesting observations of human behavior documented through sewer flow monitoring data. The authors have performed engineering analysis on data from thousands of flow monitoring locations across the United States, and this paper will show those of general interest, including serious and light-hearted material.

9:15am-9:45am – Controlling the Source: Identifying, Funding, and Evaluating Performance of Impactful, Cost-Effective Source Control Projects

Speaker: Tim Prevost, Allegheny County Sanitary Authority

The presentation will describe the development and application of the project efficiency modeling and constraint and opportunity analysis, discuss the performance evaluation process, provide a summary of performance for nearly 100 grant projects, and discuss lessons learned for their applicability in helping to address wet weather issues in other communities.

10:20am-10:50am – Democratizing Sewer Capacity Planning through Digital Innovation

Speakers: Carolyn Klunder; Varun Srinivasan, trinnex

In sewer capacity planning, it is essential to understand the current system's capacity and predict future demands accurately. The process involves a detailed assessment of the sewer system's ability to accommodate current and future flows, including wet weather peak flows. This presentation will discuss the current state-of-the-art in capacity planning and discuss the importance of modernizing the capacity planning methods to suit current needs. We will also present case studies of modernizing capacity planning for utilities and show examples of how utilities can create end-to-end workflows to simplify their sewer permitting and capacity planning process.

10:55am-11:25am – The Future is Smart Sewer Inspections

Speaker: Josh Ford, PipeAid

AI is transforming sewer pipe inspections by enhancing efficiency, accuracy, and cost savings. By automating defect detection and coding, PipeAid™ reduces inspection time, eliminates human bias, and integrates with GIS for a digital twin. Join us to explore PipeAid's predictive maintenance capabilities and its seamless integration with existing technologies.

11:30am-12:00pm – Tracking Asset Information: Integrating Digital Solutions to Augment Data Collection and Data Accessibility

Speakers: Robert Cecchetti; Josiah Bair, GHD

Digital solutions provide the ability to track asset information, automate workflows, reduce the time needed for quality control and review, and ultimately increase design productivity. Furthermore, digital solutions provide a platform to effectively convey information to stakeholders to alleviate questions and stress during construction.

Technical Program Details

ENGINEERING & CONSTRUCTION PROGRAM

Construction

Moderators: Ben Briston; Rucha Shah

8:40am-9:10am – Alternate Delivery Examples – Plowing the Way for Efficient Private Water Project Delivery in PA

Speakers: Michael Bisignani; Joseph Koehler, GHD

Allan Myers and GHD have jointly delivered over ten successful water and wastewater projects in Pennsylvania. This presentation highlights alternative delivery approaches, challenges, outcomes, and lessons learned, with projects ranging from \$350K collection system upgrade projects to \$20M water treatment plant capital improvement projects for private water companies.

9:15am-9:45am – Safety in Design

Speaker: Jared M Lewis, CSP, Hazen and Sawyer

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.

10:20am-10:50am – Predictive Design Process Modeling for Operation During Construction and Startup

Speaker: Kevin Hoffman, KLH Engineers

McCandless Township Sanitary Authority utilized prudent planning to design a WWTP upgrade elected to Phase the construction of the biological process upgrades consistent with future influent loads. Design efforts to model the process through phasing as well as construction and startup of Phase I will be compared to actual operational data experienced.

10:55am-11:25am – Startup and Integration of a New 360 MGD Headworks Facility into an Existing Plant

Speaker: Isaac Katz, WRA

We are up and running! A new 360 MGD headworks building for ALCOSAN is officially online. This presentation will walk through all the ins and outs of startup, testing, and integration of the new headworks into an existing plant.

11:30am-12:00pm – Construction of the DTMA SW WWTP Upgrade and Expansion Project

Speaker: Tyler Lohr, PE, Hazen and Sawyer

The main focus of this presentation will be to show progress of the ongoing construction of the DTMA SW WWTP Upgrade and Expansion project. An overview of the upgrades being done to the WWTP will also be discussed as background during the presentation.

UTILITY MANAGEMENT & GOVERNMENT AFFAIRS PROGRAM

Moderators: Mark Pickering

8:40am-9:10am – Modernizing Wastewater Compliance and Operations through a Digital-First Framework at a Wastewater Utility in the Northeastern United States

Speakers: Carolyn Klunder; Varun Srinivasan, Trinnex

The wastewater resource recovery facility (WRRF) processes wastewater from its constituent communities with an average daily flow of 20 to 30 million gallons per day (MGD) with peak flows in the excess of 100 MGD. The WRRF processes lab samples in an internal lab and stores the data in a laboratory information management system (LIMS). Data is also collected from plant instrumentation via SCADA. As a first step on its digital transformation journey, they are interested in modernizing their infrastructure by integrating their data within a digital platform and leveraging modern digital technologies to automate processes and optimize operations using Trinnex's waterCAST platform. The WRRF's goals are to provide a platform for the utility staff to be able view the data on a single platform while providing the ability to showcase WRRF performance both internally and externally. This presentation will cover the digital transformation journey that the WRRF has embarked upon. It will also identify concrete steps for wastewater utilities to future-proof their operations while reducing time spent on routine activities such as monthly reporting, tracking sampling requirement and compliance, etc. We will also cover how the WRRF is using artificial intelligence (AI) to predict influent flow to their WPCF to forecast treatment needs especially under peak flow conditions.

9:15am-9:45am – Mastering the Matrix: Four Fundamentals for a Secure and Resilient SCADA System

Speakers: Heather Heltzinger, LO; Hank Hosler, Renegade Solutions, LLC

This presentation focuses on four key cybersecurity fundamentals for wastewater systems: Asset Management, ensuring control over critical infrastructure; Segmentation, enhancing security by isolating network zones; Remote Access, enabling secure monitoring from off-site locations; and Data Integrity, maintaining the accuracy and reliability of operational data. A Q&A session will follow for further discussion.

10:20am-10:50am – Right Sizing a Facility Assessment Managing Infrastructure Before it Becomes Critical

Speakers: Ed Carpenetti; Matt Crow, Black & Veatch

This presentation will provide an overview of considerations for developing an asset management program, and interfacing with Master Planning efforts. This is not a one size fits all approach and asset management can be tailored to fit utilities of any size while still providing valuable information in an easy-to-understand format.

10:55am-11:25am – Holistic Approach to Improved Nutrient Management with The Water Research Foundation Framework for Success (WRF4974) and Application in the Delaware River Basin

Speaker: Jake Metch, HDR

This Water Research Foundation project developed a framework to provide a structured process to develop holistic watershed-based nutrient reduction plans. This framework is being applied in the Delaware River Basin through the establishment of a partnership of major municipal dischargers to discuss technical strategies, estuary science, and regulatory activities.

Technical Program Details

UTILITY MANAGEMENT & GOVERNMENT AFFAIRS PROGRAM (CONTINUED)

11:30am-12:00pm – Navigating One Water Planning through Municipal Water Programs: Meeting Multiple Objectives and Regulatory Challenges (WRF Project 5175)

Speaker: Adam Hendricks, GHD

Navigating One Water Planning through Municipal Water Programs (WRF Project 5175) is exploring One Water strategies for municipal water utilities. This presentation will provide approaches for One Water solutions to address current and future regulatory obligations and achieve multiple benefits with a detailed One Water Planning Framework.

STORMWATER PROGRAM

Moderators: Brad Smith; Jason Hinz

8:40am-9:10am – Creating a Stormwater Authority – Everything You Need to Know

Speakers: Vanessa Nedrick, PE, MSEM; Daulton George, Remington & Vernick Engineers

In April 2021, Warminster Municipal Authority, a water/sanitary sewer authority, took ownership and maintenance of the stormwater system from Warminster Township, with no stormwater experience, to running a successful stormwater program. This presentation will outline everything you need to know creating a stormwater authority or utility, with real examples.

9:15am-9:45am – Using Technology to Cost Effectively Inventory Stormwater Assets and Efficiently Invest in Infrastructure Management

Speaker: Ben Gilberti, PE, Herbert, Rowland & Grubic, Inc.

See how Evans City Borough is using technologies like thermal imaging drones, pipe imagery, and GIS data inventory to systematically improve the operation and rehabilitation of their stormwater conveyance system. This technology helps them make the most efficient use of capital resources while correcting insufficient capacity and deteriorating condition.

10:20am-10:50am – Case Study: Design and Construction of Seven Rain Gardens in South Philadelphia: Lessons Learned from the 24th Street Greening Improvements Project

Speakers: John Brennan, PE; Jaime Gandara, PE, Hazen and Sawyer

This case study details the design and construction of seven rain gardens in South Philadelphia's 24th Street Greening Improvements Project. It examines geotechnical constraints, utility challenges, and construction adjustments. Lessons learned emphasize the importance of flexibility and problem-solving during construction, which resulted in optimized stormwater capture and enhanced community spaces.

10:55am-11:25am – Smart Stormwater Solutions: Managing Your Budget and Program for Maximum Impact

Speaker: Bruce Hulshizer, PE, Herbert, Rowland & Grubic, Inc.

Do you feel overwhelmed by an ever-increasing list of stormwater concerns and projects? See how two stormwater utilities are making the best use of available funds: clearing a decades-long backlog of repair and improvement needs while minimizing future costs through proactive infrastructure assessment and strategic capital planning.

STORMWATER PROGRAM (CONTINUED)

11:30am-12:00pm – Transforming Traditional Detention Basins: Strategies and Case Studies for Retrofits

Speaker: Steven Hunsberger, Bethlehem Township Municipal Authority

Basin retrofitting is expected to grow as MS4 regulations evolve. See how pre-soil testing, sophisticated modeling, and other strategies can maximize the sustainability and resilience of your basins. Deliver basins that more accurately match real-world flow patterns and can adapt to changing weather patterns for the long-term.

MONDAY AFTERNOON

BIOSOLIDS PROGRAM

Moderators: Charles Winslow, Richard Valiga

1:00pm-1:30pm – A Regional Biosolids Management Study in New England

Speaker: Vanessa Borkowski, Stantec

There is a biosolids crisis occurring in New England, and one method for mitigating the effects of the crisis is to form an alliance to develop a regional biosolids solution. This evaluation was completed by three utilities in New England to assess the feasibility of a regionalized biosolids management facility. The process for the Study included a regulatory investigation, baseline costs, market and value chain study, sidestream analysis, technology operating scenarios, cost evaluation, and non-financial evaluation.

1:35pm-2:05pm – Silver Spring Township's Journey to Beneficial Use

Speakers: Lisa Challenger; Jim Stevens, Material Matters, Inc.

Silver Spring Township Sewer Authority (SSTSA) operates a small wastewater treatment facility in central Pennsylvania – with a history of solids management via landfill disposal. Facing rising costs and uncertainty, SSTSA engaged Material Matters to review plant operations and provide feedback on achieving Class B standards. This presentation will discuss the feasibility study conducted by Material Matters for digester optimization without capital investment and their development of a cost-effective beneficial use program.

2:10pm-2:40pm – Sludge Settleability Improvements Associated with Full-Scale Densification of BNR Activated Sludge

Speakers: Nicolas Tenorio; Alex Doody, CDM Smith

In January 2023, a quarter-scale pilot of inDENSE selective sludge wasting was conducted at the Middle Basin Wastewater Treatment Facility to quantify settleability improvements in the final clarifiers. This presentation summarizes the pilot results and additional testing by CDM Smith during a site visit in June 2023.

3:40pm-4:10pm – Biosolids Gasification and Pyrolysis – Lessons Learned from Early Adopters

Speakers: Charles Winslow, PE; Jay Surti; John Harris, GHD

This presentation will provide Utility Owners, Engineers, and Operators a fundamental understanding of biosolids pyrolysis and gasification facility planning, design, construction and operational considerations, including lessons learned by early adopters in the form of case studies that will be valuable for the implementation and betterment of future projects.

Technical Program Details

BIOSOLIDS PROGRAM *(CONTINUED)*

4:15pm-4:45pm – I Just Want My Data – Working with Contract Laboratories to Get the Right Results

Speaker: Natalie Switala, Material Matters

This presentation will provide participants with an overview of laboratory accreditation changes, examples of challenges with contract laboratory results, and give audience members insight into key things to be looking at on a regular basis when reviewing results of tests completed by contract laboratories.

COLLECTIONS SYSTEMS PROGRAM

Moderators: Melissa Smith; Matt Cichy

1:00pm-1:30pm – Using a Phased Contract Approach for Trenchless Sewer Rehabilitation in Pittsburgh, PA

Speakers: Nick Modany; Toby Stutzma, JMT

The Pittsburgh Water and Sewer Authority selected the Knoxville neighborhood for sewer rehabilitation due to being an Environmental Justice Area and its over 100-years-old sewer system. When JMT recommended 160 repairs on 7.5 miles of pipe, PWSA decided to phase the project and two separate PENNVEST funding applications were prepared.

1:35pm-2:05pm – The Value of Trenchless Auger Boring in Complex Sewer Main Rehabilitations, a Case Study

Speakers: Caleb Krauter, PE;

Tas Hossain, EIT, Herbert, Rowland & Grubic, Inc.

Trenchless Auger Boring helped Capital Region Water replace a 12-inch sanitary sewer pipe that presented significant challenges, such as a depth of 27-36 feet, nearby utility conflicts with a 54-inch Storm RCP, and infiltration issues. Discover how Trenchless Auger Boring provides a unique solution for replacing utilities in complex environments.

2:10pm-2:40pm – Paper Title: Reinforced CIPP Lining of the 111-Year-Old Front Street Interceptor – Capital Region Water – Harrisburg, PA

Speaker: Chris Macey, AECOM

The Front Street Interceptor Project involved installation of reinforced CIPP lining throughout 14,895 LF of box-shaped reinforced concrete pipe (RCP). Liner design was completed using ASCE MOP 145. Construction involved long trucked-in shots, made feasible by designs used in MOP 145, and reinforced lining tube materials to reduce required design thickness, and overall product weight.

3:40pm-4:10pm – Come back for discussion

4:15pm-4:45pm – Come back for discussion

ENGINEERING & CONSTRUCTION PROGRAM

Process Modeling

Moderators: Rucha Shah; Scott Armbrust

1:00pm-1:30pm – Biological Process Modeling for Strategic Operational Improvements and Guidance of Capital Solutions

Speakers: Dylan Cowell, EIT;

Amanda Lee, Herbert, Rowland & Grubic, Inc.

Biological process modeling can serve as a key tool when evaluating operational changes and capital solutions for wastewater treatment plants. This presentation will overview model development and highlight case studies through which these models were used to provide cost-effective and data-driven solutions to critical issues.

1:35pm-2:05pm – Process Digital Twins – Twice the Insight or Two Times the Headache?

Speaker: Patrick J Dunlap, Black & Veatch

Process digital twins have emerged as potentially transformative tools which can provide real time insights which previously would require hours behind a computer to produce. But beyond the hype, there are questions to answer and challenges to overcome. Case studies will cover various applications and approaches.

2:10pm-2:40pm – Predicting Primary Clarifier Performance with Traditional and Machine Learning Models

Speaker: Nick Guho, Carollo Engineers

Historically, various models have been used to predict primary clarifier performance, from simple empirical relationships to CFD. This presentation uses full-scale data to compare the performance of simple traditional models with a suite of machine learning models and develop recommendations for primary clarifier modeling in facility planning and capacity evaluations.

3:40pm-4:10pm – Using Artificial Intelligence to Drive Predictive Analytics in a Cloud SCADA System

Speaker: Justin Starr, Community College of Allegheny County

While AI is an exciting technology, it can be challenging for water and wastewater professionals to identify exactly how to implement cutting edge algorithms into collection systems. This session will explore how AI was deployed with an existing SCADA dataset, using models developed and deployed by community college students.

4:15pm-4:45pm – Planning and Building for the Future – Expansion of the Wareham WPCF

Speaker: David Gryger, GHD

Faced with an aging plant and increasing loadings, Wareham, Massachusetts needed to upgrade existing facilities while planning for the future. This required careful engineering of the current project to ensure compatibility with future upgrades, resulting in a road map for improvements to double the capacity over the next twenty years.

Technical Program Details

UTILITY MANAGEMENT & GOVERNMENT AFFAIRS PROGRAM

Moderator: Mark Pickering

1:00pm-1:30pm – “It’s Complicated” The Operator-Engineer Relationship

Speaker: Robert Horvat, KLH Engineers

The working relationship between operators and engineers can be complicated and this is particularly true during the design of municipal projects. When the design team actively involves operators, and operators provide thoughtful input into decisions, projects are much more likely to be successful. This presentation examines common misconceptions of each about the other and explores strategies for engagement and success.

1:35pm-2:05pm – Leadership and Management for New Professionals, Including Asset Management

Speaker: Ralph E. Johnson, System Design Engineering

In the Leadership and Management for New Professionals and Asset Management presentation we’ll compare operator responsibilities to leader responsibilities, and we’ll discuss leadership in today’s employment market. We’ll also cover the importance of asset management implementation as it relates to leadership.

Objectives

- Create an awareness that as a leader there are additional and somewhat different duties and responsibilities compared to operations and maintenance.
- Present a list of leadership, management and supervisor topics that one needs to acknowledge and understand as a utility leader, manager and/or supervisor.
- Present an overview on each topic presented to create an awareness of what responsibilities, skills and duties are involved with being a leader, manager and/or supervisor.

2:10pm-2:40pm – Synergizing Diverse Drivers for Philadelphia’s Wastewater Master Plan

Speakers: Samantha Lynn O’Connor; Benjamin Deatrich, Philadelphia Water Department

The presentation will focus on integrated master planning for PWD wastewater plants, addressing critical considerations such as asset management, future ammonia regulations, climate change, and energy management. By integrating these factors, PWD aims to optimize resources, minimize environmental impact, ensure compliance with future regulations, and enhance sustainability and resilience.

3:40pm-4:10pm – DEP Update

4:15pm-4:45pm – DEP Update

STORMWATER PROGRAM

Moderators: Juan Pablo Vicuna Reyes; Gabe Lederman

1:00pm-1:30pm – Using Smart Stormwater Controls to Meet Stormwater Requirements and Preserve the Aesthetic Character of Two Historic Ponds in Harrisburg, PA: An Update and Lessons Learned

Speakers: Susan Beck, PE; Claire Maulhardt, PLA, Jacobs

This presentation will discuss the implementation of CMAC to optimize stormwater performance within two existing historic ponds. The presentation will share lessons learned on how the system was optimized to maximize stormwater performance and will demonstrate real performance data collected in 2024 demonstrating the system met and exceeded performance targets.

1:35pm-2:05pm – NYC DEP Right of Way Green Infrastructure: Implementing 7 Miles of Precast Porous Concrete Panels in the Gravesend Bay Neighborhood of Brooklyn, NY

Speaker: Stephanie Drago, NYC DEP

This presentation will discuss the design and construction of the first NYC area wide precast porous concrete panel contract. Design includes utility analysis, tributary drainage area analysis, geotechnical investigations, survey, and design. Construction requires coordination with multiple stakeholders and overcoming a wide variety of challenges.

2:10pm-2:40pm – City of Los Angeles’ Development of a Tool to Quantify the Benefits of Non-Structural Measures

Speakers: Ben Crary; Taraneh Nik-Khah, Hazen and Sawyer

The City of LA is developing a tool and framework to quantify the human-centric and pollutant reduction benefits of non-structural BMPs and minimum control measures. This presentation will focus on the methodology development and the interactive tool used to inform program investments.

3:40pm-4:10pm – Integrating Public Reporting Systems for Stormwater/MS4 Using GIS

Speaker: Andrew Tuleya, ARRO Consulting

Learn how you can leverage GIS for soliciting, processing, and responding to information provided by the public related to stormwater issues. Whether you are an MS4 permit holder or just trying to better manage public information, this presentation will provide you with easy to implement solutions related to stormwater management.

4:15pm-4:45pm – Coordinating Complex Underground Projects

Speaker: Maria White, PA One Call System, Inc.

Discover the Pennsylvania 811 Coordinate PA application, an underground project management tool that enables all underground stakeholders to safely manage large and complex underground projects from conception to construction. CPA assists stakeholders to be in compliance with the updated Pennsylvania One Call Law.

Technical Program Details

TUESDAY MORNING

COLLECTIONS SYSTEMS PROGRAM

Pumps

Moderators: Daniel Claus; Roger Lehman; Ella Quin

Various subject matter experts will pump up your knowledge of collection system pump basics, applications, and design considerations as well as operational challenges.

8:00am-8:30am – Pump 101 – Basics

8:35am-9:05am – Pump 201 – Applications

9:10am-9:40am – Pump 202 – Challenges

10:40am-11:10am – Pump 301 – O&M

11:15am-11:45am – Pump 301 – O&M

ENGINEERING & CONSTRUCTION PROGRAM

Design Fundamentals

Moderators: Scott Armbrust; Ben Briston

8:00am-8:30am – How Bad is it? Ranking & Analyzing Commonly Encountered Treatment Plant Corrosion Environments

Speakers: Steve Freed, PE; William Seawell, Induron

This presentation will guide the proactive maintenance minded plant operator and engineer on how to address different tanks with different corrosion potentials. It will focus on the water chemistry aspect of corrosion and how that interacts with common coatings systems on all substrate types (steel, concrete, galvanized steel etc.).

8:35am-9:05am – Screen Resolution: Evaluating, Selecting and Designing the Right Screen for your Wastewater Application

Speaker: David Silverman, PSI Process

This presentation will review the planning and design process for screening applications. This includes a broad array of topics including existing screen performance and sizing, determination of objectives; determination of screen size opening and target particle size; estimation of screenings volume; estimation of head losses; screenings collection and disposal, and others.

9:10am-9:40am – The Importance of Process Air: A Case Study on Blower Technology Evaluation and Design

Speaker: Danelle Bishoff, Stantec Consulting Ltd.

This presentation reviews different blower technologies and walks through the blower technology selection process for the Fish Creek WWTP as it upgrades from HPO to a conventional BNR. It will also highlight major design items including blower control requirements, DO sensors, and air flow control valves for an optimized system.

10:40am-11:10am – Going the Extra Mile in Evaluating Digester Mixing Technologies for Existing Digesters

Speaker: Xiao Guo, Carollo

Optimized mixing improves digestion stability and increases digestion capacity. The objectives were to evaluate nine mixing technologies for installation on existing digesters at a California WRRF, determine what retrofit modifications would be required and associated costs using Finite Element Analysis (FEA), and ultimately select a mixing technology for the digesters.

ENGINEERING & CONSTRUCTION PROGRAM (CONTINUED)

11:15am-11:45am – The Basics of Heating and Air Conditioning at Water and Wastewater Facilities

Speaker: William (Bill) L. Bohner, Jr., PE, ARRO Consulting

This presentation shall provide an introduction to the basics of heating and air conditioning of spaces or buildings at water and wastewater facilities. This will include considerations for types and means for heating and air-conditioning a variety of spaces and the available technologies to achieve this.

UTILITY MANAGEMENT & GOVERNMENT AFFAIRS PROGRAM

8:00am-8:30am – Strategies for Assessing & Strengthening Your Authority's Fiscal Health While Maintaining Affordable Rates

Speakers: Adrienne Vicari, PE;

Ryan Killen, Herbert, Rowland & Grubic, Inc.

Curious about how your fiscal health stacks up against neighboring authorities? Discover simple assessments and impactful strategies to evaluate your financial standing, optimize asset use, and engage customers. Learn how to make informed decisions that keep rates low while ensuring long-term financial vitality.

8:35am-9:05am – Where can I Find Funding?

Speakers: Natalie O'Connor; Tori Morgan, Entech Engineering

Infrastructure funding is critical as this time to address the impending and current regulations. This presentation focuses on the various avenues for funding wastewater projects in Pennsylvania. We will focus on the new and existing funding programs available for wastewater projects including both grant and low interest loan programs.

9:10am-9:40am – Funding Urban Stormwater Infrastructure: A Study of Dedicated Stormwater Utilities in Mid-Atlantic Phase I MS4 Jurisdictions

Speaker: Adrielli Bonfanti Pagnoncelli, Morgan State University

This study examines the implementation and financial utilization of stormwater utility fees (SUFs) in Phase I MS4 municipalities across Maryland, Virginia, Pennsylvania, and Washington, D.C. It analyzes SUF revenue generation, expenditure patterns, and fee structures, providing critical insights into urban stormwater management financing and sustainable practices.

10:40am-11:10am – Navigating BABA Act Requirements

Speaker: Brooke Semanchik, Herbert, Rowland & Grubic, Inc.

Build America, Buy America (BABA) Act requirements can be found in almost all federally funded projects. Before putting a project out for bid, it is important to understand these requirements, the impact they could have on project design and project costs, and potential effects to the project timeline.

11:15am-11:45am – PA's Evolving Nutrient Credit Trading Program: An Update

Speaker: Nickolas Hines, Material Matters

This presentation aims to provide information to utilities that rely on the PADEP nutrient credit trading program as a means for compliance or revenue. Also discussed are steps for securing credits, verifying credits, and registering generated credits, as well as offering insights into trends in credit availability and cost.

Technical Program Details

IW PRETREATMENT PROGRAM

8:00am-8:30am – Managing Unintended Consequences: Mitigating Disinfection Byproduct Formation via Modified Disinfection Chemistry

Speaker: Audrey Karl, CDM Smith

A semi-conductor manufacturing facility in NY has experienced monitoring action level (MAL) exceedances for bromoform in their final effluent (direct discharge). The team identified thirteen alternatives to prevent bromoform MAL exceedances. Alternatives ranged from chemical substitution in manufacturing to stripping after disinfection. The solution maintained effective disinfection without bromoform formation.

8:35am-9:05am – Implementing a FOG Management Program using GIS and Automation

Speaker: Andrew Tuleya, ARRO Consulting

Learn how collection systems can implement a streamlined approach to FOG management using GIS and other digital technology. Topics include typical elements of a FOG ordinance/code, management strategies, and streamlining efforts using GIS and automation. The presentation will provide a case study of successful FOG management implementation.

9:10am-9:40am – FOG Programs: How to develop a Program That Makes Sense for Your Community

Speaker: Tori Morgan, Entech Engineering

Fats, Oils, and Grease (FOG) Programs are a systematic approach to cleaning up and preventing FOG from entering the collection system. Since each Collection system is unique, each FOG Program is also unique. We will explain how programs can be specifically crafted to meet the needs of your community.

10:40am-11:10am – Optimizing PFAS Removal: Bench-Scale Evaluation of Four Foam Fractionation Technologies

Speakers: Fabrizio Sabba; Patrick Dunlap, Black & Veatch

The presentation will provide an overview of four foam fractionation (FF) technologies for removing PFAS from landfill leachate. FF implementation depends on treatment objectives and an optimal balance of contact time, numerous treatment trains, and additional polishing step may be necessary for meeting regulatory requirements.

11:15am-11:45am – Acronym Soup – The Many Types of Spill Plans and When They Apply

Speaker: Kara Humes, Entech Engineering, Inc.

If liquids are involved, spills are practically inevitable. Environmental regulations require industries and municipalities to develop and implement various spill prevention/response plans. Plans target protection of different areas/materials. Legal requirements of individual plans also differ. This presentation will help attendees understand the alphabet soup of the spill plan acronyms!

TUESDAY AFTERNOON

COLLECTIONS SYSTEMS PROGRAM

Pumps

Moderators: Elizabeth Cheeseman; Alex King

The afternoon will include a brief recap of the lessons learned in the morning session, and participant teams will work through an exhibitor scavenger hunt to find the best pump for their given scenario. Participants are encouraged to attend the entire day, however, the morning session is not a prerequisite for afternoon participation.

1:00pm-1:30pm – Pump Recap/Issues

1:35pm-2:05pm – Pick the pumps work with vendors

2:10pm-2:40pm – Pick the pumps work with vendors

3:40pm-4:10pm – Come back for discussion

4:15pm-4:45pm – Come back for discussion

ENGINEERING & CONSTRUCTION PROGRAM

Moderators: Maria White; Ben Briston

1:00pm-1:30pm – Effects of Dissolved Oxygen on Nitrifying Communities in Wastewater Treatment Plants: Insights on Microbial Adaptation

Speakers: Fabrizio Sabba; Patrick Dunlap, Black & Veatch

This study investigates the behavior of nitrifying communities, including comammox, in wastewater treatment plants with varying nutrient removal and aeration control strategies. The research shows that microbial populations adapted to low DO environments maintain high rates at high DO concentrations, and long SRT operation can favor the persistence of comammox populations adapted to different DO concentrations.

1:35pm-2:05pm – Addressing Emerging NPDES Copper Limits for Wastewater Treatment Facilities

Speaker: Taya Kotlyar, PE, GHD

This presentation offers a comprehensive overview of a copper treatment project at Aqua Pennsylvania's 0.6 MGD White Haven WWTP, aimed at meeting newly established NPDES effluent copper limits. It covers baseline effluent sampling, jar testing, full-scale pilot testing, and post construction full-scale copper removal performance data.

2:10pm-2:40pm – Optimization of Chemical Disinfectant Dose with Application of Integrated Concentration Time (ICT) Dose Pacing: Three Case Studies

Speaker: Baris Kaymak, CDM Smith

Due to the sharp price increase in hypochlorite, PVSC initiated a study to optimize chlorine dose strategy with integrated concentration time (ICT) dose pacing approach. A site-specific ICT Model was developed using laboratory scale tests. Implementing an ICT dose pacing approach would result in up to 18% chemical cost savings.

Technical Program Details

ENGINEERING & CONSTRUCTION PROGRAM (CONTINUED)

3:40pm-4:10pm – Best Steps for Rehabilitating Your Wastewater Tanks

Speaker: Christine Gunsaulus, The Tank Queen, LLC

This presentation offers a proven step-by-step guide to rehabilitate wastewater tanks, covering essential topics like inspection, maintaining treatment during outages, budgeting, scheduling, technical specs, permitting, bidding, and construction. Case studies and lessons learned from past rehabilitations will also be shared to help wastewater professionals improve future maintenance efforts.

4:15pm-4:45pm – Construction of ALCOSAN's CSO Bypass and Disinfection Facilities – Where Are We Now?

Speaker: Joel Kostelac, PE, BCEE, 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 summarizes the design and focuses on the ongoing construction and constructibility of the ~300 mgd primary effluent bypass and disinfection system central to the facility.

DRINKING WATER PROGRAM

1:00pm-1:30pm – Navigating the PFAS Maze – PFAS Treatment Residuals Management

Speaker: Liz Garvey, Stantec

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

1:35pm-2:05pm – Machine Learning Approaches for Evaluating Compliance with EPA's PFAS MCLs

Speaker: Asa Lewis, Hazen and Sawyer

Since the EPA finalized MCLs for PFAS, utilities nationwide are faced with the challenge of understanding PFAS in their system and developing solutions. This presentation will describe a GAC Modeling Tool and present a case study showing how it has been utilized in developing cost effective compliance approaches in design.

2:10pm-2:40pm – Transforming Water Treatment: Innovative Solutions for Emerging Contaminants

Speaker: Joseph Mingle, Remington & Vernick Engineers

McCandless Township Sanitary Authority utilized prudent planning to design a WWTP upgrade elected to Phase the construction of the biological process upgrades consistent with future influent loads. Design efforts to model the process through phasing as well as construction and startup of Phase I will be compared to actual operational data experienced.

DRINKING WATER PROGRAM (CONTINUED)

3:40pm-4:10pm – Lead Service Line Replacements – A Case Study in Data Management, Private Property Access and Customer Complaint Resolution

Speakers: Stephanie Cuthbert, PE; Christopher Gross, GISP, CFM, Remington & Vernick Engineers

As EPA regulations take effect, utilities face the challenge of tracking, identifying and replacing numerous service lines, with data management being overwhelming. New Jersey utilities, already in the construction phase, have developed methods for inventory, tracking and accessing private properties. This presentation shares lessons and methodologies to streamline compliance and improve customer service.

4:15pm-4:45pm – Unknown Water Service Line Identification One Knock at a Time: Lessons Learned from New Jersey American Water's Service Line Canvassing Program

Speaker: Brian Lubenow, CDM Smith

New Jersey American Water has 690,000 water services across 32 systems, including approximately 400,000 with unknown material. Understanding the critical need to identify unknown material services, they began an aggressive canvassing and interior inspection program in 2022. This presentation will focus on the logistics and best practices of this program.

IW PRETREATMENT PROGRAM

1:00pm-1:30pm – AST Filters RCPG Abstract

Speaker: Garrett Kenney, AST Filters

AST Filters presents our RCPG (recirculating polygyser) for wastewater pretreatment. This system can treat BOD, TSS, and Ammonia simultaneously. Our floating bead clarifiers are a fixed film process designed to be low maintenance and with a low operational cost.

1:35pm-2:05pm – TRC/SNC

Speakers: Andrew Moore; Tori Morgan

Understanding what Significant Non-Compliance and Technical Review Criteria mean to a Pretreatment Program and Industry. How is SNC calculated? What commercial/industrial users are subject to a SNC evaluation? What is TRC and how does it work into determining a compliance status? What happens to an industry that is determined to be in SNC or Pretreatment program that fails to address SNC? So many questions on determining IPP compliance answered.

2:10pm-2:40pm – EPA Update

Speaker: Ryan Shaurt, EPA

Hear from EPA Region 3 on the latest and greatest pretreatment regulations and how they will impact Pretreatment Programs and Industries. Learn more about what is happening with PFAS and its impact on IPP programs as well as updates on the mandatory electronic reporting for Annual IPP reports. Live and in-person, EPA will be available for all your Pretreatment-related questions.

Technical Program Details

IW PRETREATMENT PROGRAM *(CONTINUED)*

3:40pm-4:10pm – Sustainability: What Does it Mean to Small to Large Industrial/Commercial Facilities?

Speaker: Stacy Silva, Entech Engineering

It seems that everywhere you look, the term “sustainability” is being headlined or referenced. But what exactly is sustainability, and what does it mean for business large and small? Learn how sustainable measures have many benefits for your organization from financial, competitive advantage, the ability to mitigate risks, creation of operating efficiencies and the ability to attract and retain talent. Little changes can make a big difference, no matter the size of your business or organization!

4:15pm-4:45pm – How to Read and Understand a Lab Report

Speaker: John Weisman, Suburban Testing Labs

Hear from the experts on how to read and understand a laboratory report. Get valuable insight as to the importance of a complete and accurate Chain of Custody, understand the report Quality Control, notes and definitions, and unit of measure. Why does it all matter and when to ask questions. Results matter and understanding the data is key to ensuring compliance.

WEDNESDAY MORNING

ENGINEERING & CONSTRUCTION PROGRAM

Case Studies & Planning

Moderators: Scott Armbrust; Ben Briston

8:00am-8:30am – Managing Wastewater Residuals: Evaluating Bioenergy Systems Performance and Operational Strategies for Compliance

Speakers: Matt Crow; Fabrizio Sabba, Black & Veatch

This presentation will provide an overview of a bioenergy system that combines anaerobic digestion and thermal hydrolysis process to manage wastewater residuals. This will include operational guidance and strategies for maintaining compliance in stringent regulatory environments and discuss impacts of implementing enhanced biological phosphorus removal and balancing bioenergy systems.

8:35am-9:05am – Anaerobic Digestion of Organics: Overview of Two Case Studies for CHP and RNG Resource Recovery

Speaker: Dustin Craig, CDM Smith

This presentation will discuss the diversion of organics, such as food waste and the co-digestion of these wastes with anaerobic digestion which generated biogas, a beneficial byproduct at two industry leading facilities, one generating heat & power (CHP) and another producing RNG (Renewable Natural Gas).

9:10am-9:40am – Keeping Granules Happy: Aerobic Granular Sludge Testing at Sand Island WWTP

Speaker: Danelle Bishoff, Stantec Consulting Ltd.

Aerobic granular sludge technology testing is underway at the Sand Island WWTP. This presentation will review the results of the three testing phases: 1) acclimate the granules to low strength, high salinity wastewater; 2) test the reactors with two different influent sources; and 3) evaluate the rate of granule formation.

10:10am-10:40am – Benefits of Hydrocyclones for WRRF Performance: Better Settling, Improved Nitrification... and Reduced E. coli?!

Speaker: Samir Mathur, CDM Smith

This presentation focuses on design and operational concepts using hydrocyclones to promote sludge densification. This includes a case study and full-scale design at a 30-mgd facility which operates a hydrocyclone on one of its aeration basins and has demonstrated sludge settleability improvements, resilient nitrification performance, and reduced E. coli levels prior to disinfection.

10:45am-11:15am – Value Engineering for Small Water & Wastewater Systems, Another Way to Get IIJA/BIL Funding!

Speaker: James J. Rhoades, Jr., Benesch

This presentation identifies how Value Engineering (VE) can be used in addressing the critical need for infrastructure in smaller systems. The goal of the presentation is to give attendees new ideas to implement VE methodology to ultimately obtain IIJA/BIL funding for their water resources projects. Case studies will be reviewed.

Certification

PA DEP Operator Certification

The PWEA Annual Technical Conference has been planned in accordance to the requirements of House Bill 183 (Act 11) and application has been submitted to the PA DEP to provide five (5) wastewater operator contact hours. The PWEA is a PA DEP Approved Training Provider and is permitted to issue continuing education credit to water and wastewater operators.

To ensure you meet continuing education requirements, please refer to the Operator Certification 3-Year Renewal Cycle Schedule. **IMPORTANT: Contact hours received outside of your renewal cycle will not count toward your requirements.**

To comply with accreditation sponsor requirements, the PWEA will require every attendee to check in and out of each half day timeslot by presenting the contact hour tracking sheet for stamping.

In order to track your hours you must download an app during registration. More information will come at a later date. You must attend at least 2.5 hours in each half day in order to qualify for contact hours. Each half day session is worth 1.0 contact hour.

In addition to the Conference contact hours, **five workshops have been approved by the PA DEP for additional credit.** Go to page 21 for more information. These workshops will run concurrently with the Conference and may have extended hours. You will

receive credit for either the workshop or the Conference session, depending on what you attend during each timeslot.

Please note: You may only receive credit for attending a specific workshop once during your renewal cycle. DEP will not count the same workshop more than once within a cycle. Please check your records to be sure you have not previously attended one of these workshops within your current cycle.

Continuing Education for Professional Engineers and Other Professionals

PWEA technical sessions are not pre-approved by state boards for licensed professionals. Therefore, it is not possible to guarantee their acceptance for certification purposes. PWEA will issue transcripts based on the attendance information provided on tracking sheets, which will be available at the Registration Area. Transcripts for Professional Engineers, Geologists, Land Surveyors, and other professionals will show 3.0 Professional Development Hours (PDH) per half day program. Time will be earned in half day increments; partial time will not be issued. This time represents actual classroom hours. It is the responsibility of each individual to submit their PDH credit in the format required by their state licensing boards.

Certificates will be processed and emailed approximately one month after the Annual Conference.

PA DEP Certification Exams

The Pennsylvania Water Environment Association (PWEA) is offering PA DEP Operator Certification Exams on different dates and location in 2025. Register for your exam(s) through PWEA online registration system at pwea.org. Exam registration fees are: \$75 for PWEA members or \$125 for non-members. Payment for exams is by credit/debit card only. Check the website for seat availability.

Exam dates and locations – all exam times are 9:00am-1:00pm.

- Tuesday, May 6, 2025 – Berks Fire Training Center, Morgantown
- Tuesday, June 3, 2025 – DEP NERO, Wilkes Barre Office
- Wednesday, June 25, 2025 – Kalahari Resort, Pocono Manor
- Tuesday, August 12, 2025 – DEP NCRO, Williamsport Office
- Thursday, August 21, 2025 – DEP SWRO, Pittsburgh Office
- Tuesday, September 23, 2025 – Four Points Sheraton – Allentown Lehigh Valley, Allentown
- Wednesday, October 1, 2025 – DEP SWRO, Pittsburgh Office

Not a member of PWEA?

Go to www.pwea.org to join online or to download the membership application form.

Members receive the PWEA member rate for the PennTec Conference and for PWEA training events.

Member benefits include the Keystone Water Quality Manager, a quarterly technical publication containing legislative updates, design/process operations articles, problem-solving case histories, and advance notice of continuing education. This valuable magazine also highlights current technology trends and issues affecting water quality.

You will also receive by email the monthly PWEA e-Newsletter, keeping you up-to-date on the latest water quality news and PWEA events.

If you have questions about PWEA, please contact the PWEA Administrative Office at 717-642-9500 or by email at pwea@pwea.org.



Workshop Details

The following workshops are being offered during PennTec 2025 on June 23-25 at the Kalahari Resort. You may add these courses to your PennTec registration, or you may register for individual course(s) separately. You must register in advance for these courses. All courses are limited to 40 attendees, unless otherwise noted.

Monday & Tuesday, 8:00am-5:00pm

Activated Sludge Refresher Course

This course is PA DEP Approved for 16.0 wastewater contact hours.

Course ID 3884

You must attend both days to earn DEP credit.

Partial credit will not be awarded.

Instructors: Jeremy Miller, PA DEP; Walter Higgins, US EPA

This course was developed as a preparatory course for the activated sludge certification exam as well as a refresher for certified operators. Students will be engaged in active classroom discussion as well as small group exercises. In advance of the training date, students will be provided with vocabulary and other training material to review before the classroom training. Interactive instruction and handouts explaining the activated sludge process, exam taking skills and practice math drills, general knowledge review, concept reinforcement, confidence building, homework, and a supportive learning environment are included. Registrants should bring a calculator, a notebook and a pen/pencil.

Monday, 8:45am-11:30am

A Laboratory Practices Committee Workshop

Laboratory Ethics

This course is PA DEP approved for 3.0 drinking water and wastewater contact hours.

Course ID 7364

Instructor: Larissa Hoover, Alcosan

This course provides detailed information for laboratory technicians and supervisors on the topic of lab ethics, based on Chapter 252. This course is for employees who need ethics refresher training for the laboratory every 14 months. The course discusses common definitions, state requirements, consequences and prevention of unethical behavior, conflict of interest, ethics policies and agreements, data control and legal defensibility, as well as red flags and data reporting.

Tuesday, 8:00am-11:45am

Responsibilities of Clean Water Professionals "Operator Ethics"

This course is PA DEP approved for 3.5 wastewater contact hours.

Course ID 7122

Instructors: Erick Ammon, Marc Neville, Kevin Buss, and Brandon Bettinger – PA DEP

This training workshop, titled "Responsibilities of Clean Water Professionals", introduces the Wastewater Operator Code of Ethics, identifies elements of sustainable asset management, reviews cybersecurity and emergency planning for wastewater systems, and provides an overview of the laws, rules, and regulations that impact a certified wastewater operator in Pennsylvania. During the workshop, instructors guide attendees through a group exercise that presents "worst case scenario" conditions at a wastewater treatment facility caused by inadequate operation and maintenance of the facility by the permittee/owner and the certified wastewater operator. Attendees consider the scenario as an "ethical" consulting certified operator, using the information from the training to develop a strategy for effectively communicating existing facility conditions to the permittee and regulatory authorities and present corrective actions to bring the facility into compliance with the requirements set forth in the NPDES Permit and Department rules & regulations. Upon conclusion of this course, attendees will be ready to accept and carry out the responsibilities and rewards of being a Clean Water Professional.

Wednesday, 8:00am-11:45am

A Biosolids Committee Workshop

Solids Handling & Disposal

This course is PA DEP approved for 3.5 wastewater contact hours.

Course ID 9165

Instructors: Charles Winslow, GHD; Chris Boyd, Charter Machine; Howard Butler, GHD

The purpose of this course is to provide an overview of current trends in biosolids thickening, processing, dewatering, and disposal. The core topics will include thickening technologies, anaerobic digestion, aerobic digestion, and solids management planning. Dewatering strategies and technologies will also be discussed, as well as biosolids disposal and beneficial use opportunities.

Wednesday 8:00am-11:30am

A Safety Committee Workshop

Excavation and Trenching Refresher

This course in PA DEP approved for 3.0 drinking water and wastewater contact hours.

Course ID 6501

Instructor: Edwin Kauffman, RETTEW Associates

The purpose of this excavation and trenching course is to serve as a refresher for students who have already completed an Excavation and Trenching Competent Person course. Attendees will focus on core topics including justification for training, underground services, electrical hazards, traffic control, and protective systems (shoring, benching, sloping).

2025 Workshops

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

	DISCOUNT WITH FULL PENNTEC REGISTRATION		FEE FOR WORKSHOP ONLY*	
			BY MAY 31	ONSITE
Monday & Tuesday, 8:00am-5:00pm				
Activated Sludge Refresher Course				
Course ID 3884	\$25	PWEA Member	\$270	\$320
PA DEP approved for 16.0 wastewater contact hours		Non-Member	\$345	\$395
You must attend both days to earn DEP Credit. Partial credit will not be awarded.				
Monday, 8:45am-11:30am				
A Laboratory Practices Committee Workshop				
Laboratory Ethics	\$25	PWEA Member	\$90	\$140
Course ID 7364		Non-Member	\$165	\$215
This course is PA DEP approved for 3.0 drinking water and wastewater contact hours				
Tuesday, 8:00am-11:30am –				
Responsibilities of Clean Water Professionals				
“Operator Ethics”	\$25	PWEA Member	\$90	\$140
Course ID 7122		Non-Member	\$165	\$215
This course is PA DEP approved for 3.5 wastewater contact hours				
Wednesday, 8:00-11:30am –				
Biosolids Committee Workshop				
Solids Handling & Disposal	\$25	PWEA Member	\$90	\$140
Course ID 9165		Non-Member	\$165	\$215
This course is PA DEP approved for 3.5 wastewater contact hours				
Wednesday, 8:00-11:45am –				
Safety Committee Workshop				
Excavation and Trenching Refresher	\$25	PWEA Member	\$90	\$140
Course ID 6501		Non-Member	\$165	\$215
This course in PA DEP approved for 3.0 drinking water and wastewater contact hours				
WORKSHOP FEES INCLUDE 3-RING BINDERS AND/OR HANDOUTS.				
* You may only register at the Workshop Only fee for one day of the Conference. If you wish to attend workshops on multiple days, you will need to pay for a Full Conference Registration and add workshops at the discounted fee.				

Methods of Payment:

- **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.

2025 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 31	AFTER MAY 31
Full Conference			
PWEA Member	\$515	\$565	\$615
Non-Member	\$625	\$675	\$725
Monday Only			
PWEA Member	\$285	\$335	\$385
Non-Member	\$350	\$400	\$450
Tuesday Only			
PWEA Member	\$285	\$335	\$385
Non-Member	\$350	\$400	\$450
Monday Only Young Professional Registration			
PWEA Member	\$190	\$240	\$290
Non-Member	\$255	\$305	\$355
• Discount Ticket with SYP Registration: PO Plant Tour - \$20			
Tuesday Only Young Professional Registration			
PWEA Member	\$190	\$240	\$290
Non-Member	\$255	\$305	\$355

NETWORKING EVENTS

Sunday	
Golf Tournament	
• Single Golfer	\$120 per person
• Foursome discount	\$450 per foursome

Monday	
PO Plant Tour	\$35 per person
President's Reception	no charge
Awards Reception	no charge
Tailgate Dinner & Cornhole Tournament	\$55 per person

Tuesday	
Women in Water Luncheon	no charge
Beer & Pretzels/Wine & Cheese Reception	no charge

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 14-18, 2026

Hershey Lodge, Hershey, PA

Get ready to celebrate! PWEA is commemorating 100 years in 2026. Join us in Hershey, PA for the PennTec Conference and a celebration you won't want to miss. The Conference provides learning, discussion and interaction with other water quality professionals and vendors. Continuing education credits are available for operators, engineers and other water quality professionals.

Attending sessions, visiting with the exhibitors and networking with your colleagues will help you: find solutions to current problems; discover new and innovative technologies; learn about the latest products and equipment; and make important contacts for the future.

We can't wait to party with you at next year's PennTec Conference in Hershey!