

# PennTec 2024 CONFERENCE PROGRAM

**June 16-19, 2024** | Penn Stater Conference Center Hotel  
State College, PA



## Manufacturer's Representative Water and Wastewater Industry

717-761-7884 • sales@envirep.com • www.envirep.com

### AMT PUMPS

Small Utility Pumps, Sump Pumps

### AQUA-AEROBIC SYSTEMS

SBR, MBR, AquaPASS®, Floating Aerators, Mixers, OxyStar® Aerators, AquaABF®, Filters, AquaDisk, AquaPrime™, AquaStorm™, AquaDiamond® Cloth Media Filters, AquaMB Process®, Potable Water Membrane Filtration Systems, Aqua ElectrOzone™ Systems, AquaNereda® Aerobic Granular Sludge

### AQUARIUS

Fine and Coarse Bubble Aeration Systems, Fixed Biofilm System (FBS)

### C.E. SHEPHERD

Trickling Filter and Tube Settler Media

### CLINTON CONTROLS

Control Panels for Pumping and Treatment Applications

### EBARA PUMPS

Wet Pit and Dry Pit Submersible Pumps

### ECOVERDE

Odor Control Systems

### EMERALD COAST

Wastewater Samplers

### ENVIRONETICS

Floating Baffles and Covers, Clearwell Baffles

### EVOQUA - ETS

Closed Vessel UV Disinfection Systems

### FONTAINE-AQUANOX

Stainless Steel Slide Gates, Stop Logs

### FRANKLIN ELECTRIC

Grinder Pumps and Pump Stations, Submersible Packages

### G.E.T. INDUSTRIES

GrindHog™ Comminutors

### GORMAN-RUPP

Wastewater Pumping Stations, Sewage and Sludge Pumps, Water Booster Stations, Submersible Pumps, Engine Driven Pumps, Utility Water Systems

### GREASEZILLA

Grease Separation Process for FOG and Grease Trap Waste

### GUARDIAN ENVIRONMENTAL

Rectangular Clarifier Chain, Flights, Baffles, Troughs, Weirs, Scum Pipes

### HARDY PRO-AIR

Blower Packages, Direct-Drive Energy Savings Blower Packages, Sound Enclosures

### HIDROSTAL PUMPS

Submersible, End Suction Screw Centrifugal, and Axial Flow Tube Pumps

### H-TEC

Air Release and Vacuum Valves

### KUSTERS WATER

Headworks Screens, Washer Compactors, Grit Removal, Grit Classifiers, Grit Washers, Circular Clarifiers, Odor Control

### LANDIA

Submersible Mixers, Recycle and Chopper Pumps, Jet Aerators, Digester Mixing Systems

### LONE STAR BLOWER

Geared and Gearless Turbo Blowers, Multistage Centrifugal Blowers

### OMNISITE

Wireless Monitoring for Pump Stations, WWTP's and Remote Sites

### PARK PROCESS

Dewatering Containers for Sludge, Grit, Screenings, Polymer Mixing & Blending Systems

### PRO-AIR

Wet Well Aeration System to Reduce Grease Buildup, Odors, and Corrosion

### PURAFIL

Odor Control, Corrosion Control, Toxic Gas Scrubbers

### PW TECH

Volute Dewatering Presses and Thickeners, CSO/SSO Products

### RAMPARTS

Air Operated Diaphragm Pumps

### SAVÉCO® (ENVIRO-CARE)

Headworks and Screens, MBR Pre-Treatment Screens, Septage Receiving Units, Grit Handling, Screw Pumps, Screw Conveyors

### SHELTER WORKS

Pump Station Enclosures and Wastewater Equipment Enclosures

### TRIPLEPOINT

Advanced Lagoon Aeration and Treatment Systems

### UET MIXERS

Mixers, Agitators, Static Mixers, Chemical Mixers, Polymer Mixers

### VALMET (FLOWROX)

Peristaltic Chemical Feed, Hose and Progressive Cavity Pumps, Pinch and Knife Gate Valves

### VEOLIA (KRUGER)

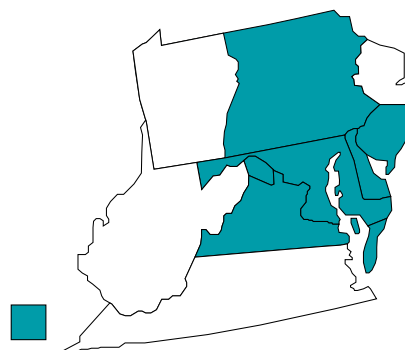
ACTIFLO® Ballasted Clarifier, Actina™ Pellet Softening, Oxidation Ditch, IFAS and MBBR, ANITA™ Mox Anammox, BioCon Dryer, BIOSTYR® BAF, Ecrusor™ Package Removal, LagoonGuard™ Biofilm Reactor, NEOSEP™ MBR, PFAS Removal and Treatment

### VOGELSANG

Rotary Lobe Pumps, Progressive Cavity Pumps, XRipper Twin Shaft Grinders, RotaCut Macerators

Pennsylvania, New Jersey, Maryland, Delaware,  
District of Columbia, Virginia, and West Virginia

Envirep/TLC  
Territory





## WE TAILOR OUR SCREENING EQUIPMENT TO FIT YOUR NEEDS.

**All wastewater treatment plants are not alike.** That's why plant designers prefer our *Raptor*® line of screening products, the innovative all-in-one units that screen, wash, convey and dewater screenings efficiently, capturing more fine solids and long fibers than other available screens. *Raptor*® products are adaptable to a wide range of configurations, giving you more choices for better performance in your unique application. They are preferred among plant operators for their simple operation, ease of use, and minimal maintenance. When performance counts, count on the industry leader for more than 90 years—Lakeside Equipment Corporation.

### REPRESENTED LOCALLY BY:



754 Kittanning Hollow Road  
East Brady PA 16028  
T: 724.526.5714 | F: 724.526.5277  
jcurran@damansuperior.com  
[www.damansuperior.com](http://www.damansuperior.com)



P.O. Box 107  
Harleysville, PA 19438  
T: 215.256.8430 | F: 215.256.8567  
dave@pyrzwater.com  
[www.pyrzwater.com](http://www.pyrzwater.com)



### Cleaner Water for a Brighter Future®

Speak to one of our experts at **630.837.5640**, email us at [sales@lakeside-equipment.com](mailto:sales@lakeside-equipment.com) or visit [lakeside-equipment.com](http://lakeside-equipment.com) for more product information.



### Raptor® Screening Products

- Fine Screen
- Micro Strainer
- Rotating Drum Screen
- Septage Acceptance Plant
- Septage Complete Plant
- Complete Plant
- Multi-Rake Bar Screen
- FalconRake® Bar Screen
- Rotary Strainer Screen
- Wash Press

HD WW pumps & controls IN STOCK



# REINER

## PUMP SYSTEMS



Engineered Water and Wastewater Equipment



SULZER



Johnston Pumps



SEEPEX.



Franklin Electric



973-347-9000  
reinerpump.com

ccreiner@reinerpump.com  
gsermarini@reinerpump.com

# REINER

## PUMP SYSTEMS

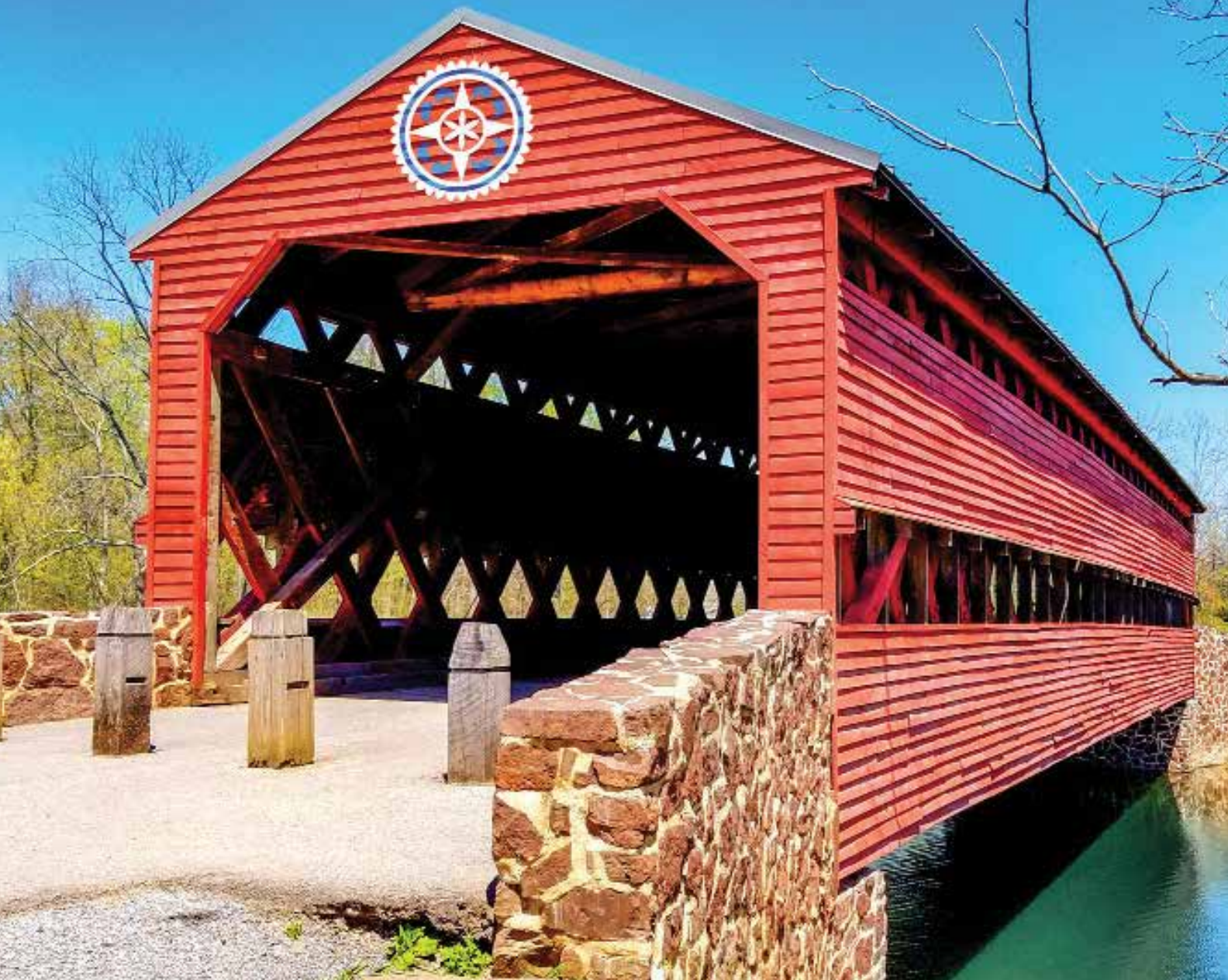


COSTARS™ ★★★★★

Pennsylvania Department of General Services



**In Pennsylvania, this symbol means  
*water for life.***



**Now, so does this.**



**800.523.5826 / [carollo.com](http://carollo.com)**

**Carollo Engineers is now in Pennsylvania.**

Throughout the Keystone State, hex signs are a common sight. So are countless streams, rivers, lakes, and ponds. At Carollo, we understand the importance of clean water—it's been our sole focus for 90 years. Now, we can bring our innovative and resilient water solutions to Philadelphia, Pittsburgh, and every community in between.

# Pump & Blower Controls

## VARIABLE FREQUENCY DRIVES

- Field repair of all **Variable Frequency Drives** and new VFD upgrades.
- 24/7 **Emergency PLC & Motor Control Service** & replacement by factory trained technicians.
- **Mobile VFD's** available for critical applications that can't afford to be down during repairs.
- **Power Quality** monitoring/solutions, harmonic mitigation & motor protection.
- The most in depth **Preventative Maintenance** service in the industry for low & medium voltage VFDs.

## SERVICES

- Quick Response Time
- Preventive Maintenance (All Low & Medium - Voltage VFDs)
- All Models Repaired
- Remote Access & Monitoring
- Emergency VFD Replacements
- Drive & PLC Retrofits
- Emergency Mobile VFDs

### CONTACT US!

**PITTSBURGH: (412) 247-4816**

**CLEVELAND: (440) 345-6378**

**ERIE: (814) 414-0644**



**Your Drive and Control Experts!**

6 Commerce Drive, Pittsburgh, PA 15239  
(412) 247-4816 • [www.drv-inc.com](http://www.drv-inc.com)





## Table of Contents

A Message from the PWEA Leadership.....	10
Call for Abstracts .....	78
Certification .....	52
Committees.....	74
Conference at a Glance.....	8
Exhibit Hall Information.....	58
Exhibitor Listings.....	60
Keynote Presentation .....	12
PWEA Information .....	75
PennTec 2025 Announcement.....	80
PennTec Sponsors .....	68
Raffle Draw.....	71
Special Events .....	14
Student Research .....	72
Technical Program Details .....	34
Workshop Details.....	56



### Q & A



**QUESTIONS?**  
 If you have questions about PWEA,  
 please contact the PWEA Administrative Office at  
**717-642-9500 or by email at [pwea@pwea.org](mailto:pwea@pwea.org).**

# Conference at a Glance

(as of May 22, 2024)

Visit [www.pwea.org](http://www.pwea.org) for the most current program schedule.

## SUNDAY, JUNE 16

11:00am-3:00pm	Community Service Project
4:00pm-5:00pm	Registration Opens
6:00pm-7:30pm	Vendor Get-Together at Legends Sports Bar <a href="https://thepennstaterhotel.com/legends-restaurant">https://thepennstaterhotel.com/legends-restaurant</a> with Exhibits & Sponsors Committee

## MONDAY, JUNE 17

7:00am-5:00pm	Registration Opens
7:00am-8:00am	Continental Breakfast in Hallway
7:30am-8:30am	Keynote Presentation
8:40am-12:00pm	<b>Morning Technical Programs (DEP #9482)</b> <ul style="list-style-type: none"> <li>• <i>Biosolids – Rm 206</i></li> <li>• <i>Collection Systems – Rm 207</i></li> <li>• <i>Engineering &amp; Construction – Rm 208</i></li> <li>• <i>Stormwater – Rm 107</i></li> <li>• <i>Utility Management &amp; Government Affairs – Rm 109</i></li> </ul> <b>Workshops</b> <ul style="list-style-type: none"> <li>• <i>Activated Sludge Refresher – Day 1 of 2 – Rm 105</i></li> <li>• <i>Back to Basics – Water Quality Monitoring Course – Rm 106</i></li> </ul>
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 – Senate Room
12:45pm – 4:45pm	<b>Workshop</b> <ul style="list-style-type: none"> <li>• <i>Responsibilities of Clean Water Professionals – Rm 108</i></li> </ul>
12:55pm-1:00pm	5-Minute Vendor Presentations
1:00pm-3:30pm	Professional Operators (PO) Plant Tour
1:00pm-4:45pm	<b>Afternoon Technical Programs (DEP #9483)</b> <ul style="list-style-type: none"> <li>• <i>Biosolids – Rm 206</i></li> <li>• <i>Collection Systems – Rm 207</i></li> <li>• <i>Engineering &amp; Construction – Rm 208</i></li> <li>• <i>Stormwater – Rm 107</i></li> <li>• <i>Utility Management &amp; Government Affairs – Rm 109</i></li> </ul>
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 – Dean's Hall 1
7:15pm-9:30pm	Tailgate Dinner and Cornhole Tournament – Dean's Hall 2 & Terrace

## TUESDAY, JUNE 18

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	<b>Morning Technical Programs (DEP #9484)</b> <ul style="list-style-type: none"> <li>• <i>Collection Systems – Rm 207</i></li> <li>• <i>Engineering &amp; Construction – Rm 208</i></li> <li>• <i>Industrial Waste Pretreatment – Rm 107</i></li> <li>• <i>Privatization &amp; Cybersecurity – Rm 206</i></li> <li>• <i>Utility Management &amp; Government Affairs Program – Rm 109</i></li> <li>• <i>Professional Operators Privatization &amp; Cybersecurity – Rm 203</i></li> </ul> <b>Workshops</b> <ul style="list-style-type: none"> <li>• <i>Wastewater Treatment – Rm 108</i></li> <li>• <i>Activated Sludge Refresher – Day 2 of 2 – Rm 105</i></li> </ul>
8:00am-11:30am	
8:00am-5:00pm	
9:40am-10:40am	Exhibit Hall Open with Break Refreshments
11:15am-11:45am	Biosolids Mobile Sessions in Exhibit Hall
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	<b>Afternoon Technical Programs (DEP #9485)</b> <ul style="list-style-type: none"> <li>• <i>Collection Systems – Rm 207</i></li> <li>• <i>Engineering &amp; Construction – Rm 208</i></li> <li>• <i>Industrial Waste – Rm 107</i></li> <li>• <i>Privatization &amp; Cybersecurity – Rm 206</i></li> <li>• <i>Professional Operators – Rm 109</i></li> </ul>
2:40pm-3:40pm	Exhibit Hall Open with Break Refreshments
4:45pm-5:45pm	Beer & Pretzels Reception in Exhibit Hall
4:45pm-5:45pm	Operator Olympics in Exhibit Hall

## WEDNESDAY, JUNE 19

7:00am-8:30am	Continental Breakfast in Hallway
7:00am-12:00pm	Registration Open
7:55am-8:00am	5-Minute Vendor Presentations
8:00am-11:15am	<b>Morning Technical Programs (DEP #9486)</b> <ul style="list-style-type: none"> <li>• <i>Engineering &amp; Construction – Rm 107</i></li> </ul> <b>Workshops</b> <ul style="list-style-type: none"> <li>• <i>Biosolids Workshop – Rm 108</i></li> <li>• <i>Introduction Locator Program – Rm 105</i></li> </ul>
8:00am-11:30am	
8:00am-11:30am	
8:30am	Annual Golf Tournament Penn State Golf Course, White Course
9:00am-1:00pm	PA DEP Water/Wastewater Operator Certification Exam
9:40am-10:10am	Break Refreshments in Hallway
11:30am	Conference Concludes





# MERSINO®

DEWATERING  
BYPASS PUMPING  
POWER GENERATION  
ONE-PASS TRENCHING

24 HOURS  
7 DAYS A WEEK  
365 SERVICE



**MERSINO.COM | 866.MERSINO**

# A Message from the PWEA Leadership

On behalf of the PWEA Board of Directors and the 2024 Conference Committee, we invite you to attend PWEA's 95th Annual Technical Conference and Exhibition (PennTec 2023) on June 16-19 at the Penn Stater Conference Center Hotel in State College, 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 Wednesday again 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 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!



**William LaPorte**  
PWEA President



**Linda Leopold**  
PWEA Past President



**Jeff Cantwell**  
Chair, PennTec 2024  
Program Committee



**Robert W. Dengler II**  
Co-Chair, PennTec 2024  
Program Committee

## Alternative Disinfection to Chlorination Processes PERACETIC ACID

### APPLICATIONS

Wastewater Disinfection  
Potable Water Treatment  
CSO Treatment  
Industrial Disinfection Processes

### BENEFITS

Easy to Feed Liquid  
No Harmful DBP's in Effluent  
Low Residual Toxicity  
No Dechlorination Required  
4 to 5 Log Disinfection Efficiency

More Products...  
More Solutions...  
That's Coyne!

### EFFECTIVE ON

Bacteria  
Viruses  
Cyanobacteria  
Endocrine Disruptors  
Yeast & Spores



Coyne Chemical Environmental Services  
Main: 215-785-3000  
[www.coyneenvironmental.com](http://www.coyneenvironmental.com)



# A&H

EQUIPMENT

800.753.7566

[ahequipment.com](http://ahequipment.com)



Contact Your Territory  
Sales Manager

**WE PROUDLY PARTNER  
WITH ENVIRONMENTAL  
EQUIPMENT & TOOL  
LEADING MANUFACTURERS  
WITHIN OUR INDUSTRY TO  
ASSIST YOU TO GET THE  
JOB DONE RIGHT.**

 **ENVIROSIGHT**

**VACTOR**

**TRUVAC**  
an Vactor Mfg. Inc.

**KEG**  
The Difference Is Performance!

**HYDRA-FLEX**  
FLUID INNOVATION

# Keynote Presentation

## Hand Over Fist: Overcoming the Five Main Challenges to Change

Monday, 7:30am-8:30am



George Hawkins arrived as the General Manager of the District of Columbia Water and Sewer Authority in 2009 in the middle of a crisis. The utility was voted the worst customer service agency in Washington, DC at the same time the American Society of Civil Engineers rated water and wastewater both D-, the lowest grade given. George panicked when

he realized the five central obstacles to change – which are common to any public infrastructure. George will describe how he and his team were able to overcome each obstacle, becoming one of the most innovative and highly respected water utilities in the country. He will highlight universal principles that can guide any transformative change, learned from almost unbelievable stories from the frontlines of public service in the nation's capital. George will also add commentary on the selection of his non-profit Moonshot

Missions as a National Environmental Finance Center and his observations about how to structure effective technical assistance to help disadvantaged communities access federal and state funding.



### KB Series Biogas CHP Modules



Twin KB 100 Biogas CHP Modules Pictured above



**Kraft Energy Systems KB Series** Biogas Fueled CHP Modules put waste to work. Wastewater treatment facilities, dairy farms, dairy food producers and landfill sites rely on KB Series CHP Modules for environmental solutions that pay back.

Your choice of 7 pre-engineered indoor/outdoor models rated ( 60 - 550 kWe ) with packaged hot water recovery system or straight electrical power generation. Custom single unit solutions available up to 1.3MW or larger with multiple units in parallel.

Kraft Energy Systems CHP modules are sold and serviced by Kraft Power Corporation. Since 1965, Kraft has been a leader in servicing CHP systems as well as critical life safety and emergency power systems. With 7 full service locations, providing 24x7 response, Kraft is a power systems expert, who understands the urgency of keeping power generation assets on line.

Contact Kraft Energy Systems today to learn more  
**877-349-4184**

[CHP@kraftpower.com](mailto:CHP@kraftpower.com)

[www.kraftenergysystems.com](http://www.kraftenergysystems.com)







## **CHEMICAL FEED AND PROCESS EQUIPMENT FOR WATER & WASTEWATER**

Visit our website for account listing:

**[www.bissnussinc.com](http://www.bissnussinc.com)**

### **PITTSBURGH**

2600 Boyce Plaza Rd  
Suite 218  
Pittsburgh, PA  
Tel: (412) 221-1200  
Fax: (412) 221-5952

### **CANFIELD**

7 Court Street  
Suite 210  
Canfield, OH 44406  
Tel: (330) 533-5531  
Fax: (330) 533-6857

**FOR CHEMICAL FEED PARTS & SERVICE VISIT**

**[www.bnrinc.com](http://www.bnrinc.com)**



**35+ YEARS SERVING THE COMMUNITY**

# Special Events

## *Penn State's Sustainability Experience Center*

*Sunday, 11:00am-3:00pm*

The community service project at PennTec will be at Penn State's Sustainability Experience Center.

The nine-acre Sustainability Experience Center lies on the edge of Penn State's University Park campus and provides a living laboratory for students, faculty, and the community to research and learn about sustainability. The site allows different projects to explore food, energy, water, land, and community systems.

The site is home to the campus Community Garden and five ongoing research and outreach projects hosted by various departments and colleges in the university.

Volunteers will be doing basic gardening and clean up tasks around the Sustainability Experience Center.

Volunteers are asked to bring their own work gloves and pruning shears or snips, 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.



## Bridging the gap between idea + achievement



hdrinc.com | Philadelphia, Pittsburgh, Bethlehem, Plymouth Meeting, Mechanicsburg

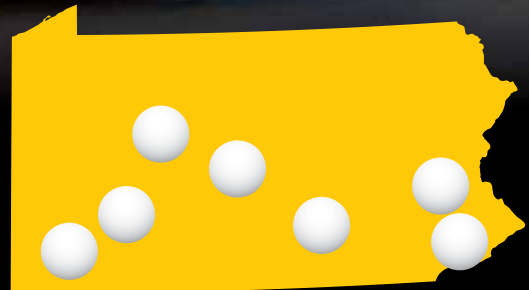






coreandmain.com

## WE'RE ALL ABOUT *Pennsylvania*



When you need dependable service in the middle of the night, the eye of the storm or the center of town, you need the waterworks experts at Core & Main.

**A Leading Specialized  
Distributor of Water,  
Wastewater, Storm Drainage  
and Fire Protection Products,  
and Related Services**

**Bentleyville**  
724-239-2063

**Latrobe**  
724-539-2900

**DuBois**  
814-637-5851

**State College**  
814-357-3130

**Harrisburg**  
717-938-8693

**Allentown**  
610-481-9979

**Plymouth Meeting**  
610-275-7400

Local **Knowledge**

Local **Experience**

Local **Service, Nationwide**

# Special Events

## Annual PWEA Golf Tournament

*Wednesday, 8:30am Shotgun Start*

Join your colleagues for a friendly game of golf at the Penn State Golf Course (White Course) in State College, 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 May 31st; on-site registration is not available for this event. Appropriate golf attire is required.**

(To qualify for the foursome rate, all four names must be included on one registration form and accompanied by full payment. You may not register at the foursome rate using individual registration forms.)



## Endimal™ Series Odor Control Solutions

### APPLICATIONS

Solids Separations Processes  
Collection Systems/Lift Stations  
Septage Receiving Areas  
Influent / Grit Chambers  
Solids Transport  
Compost Operations

### REACTS WITH

H<sub>2</sub>S  
Mercaptans  
Amines  
Dimethyl Disulfides  
Other Volatile Sulfur Compounds

**More Products...  
More Solutions...  
That's Coyne!**

### BENEFITS

Reacts Instantaneously on Contact  
No Harmful Byproducts in Effluent  
Reduces H<sub>2</sub>S Based Corrosion  
Improves Dewaterability  
Easy to Feed Liquid  
Selective Reaction - Reduces Demand  
Provides Safer Working Environment  
Cost Effective vs Other Oxidizer  
Chemistries

### PACKAGING

Pails  
Drums  
Totes  
Bulk



Coyne Chemical Environmental Services  
Main: 215-785-3000  
[www.coyneenvironmental.com](http://www.coyneenvironmental.com)





**SANITAIRE**  
a xylem brand

LET'S RELY ON  
**PROVEN**  
SOLUTIONS.  
LET'S SOLVE  
**WATER.**

#### Silver Series II Aeration System

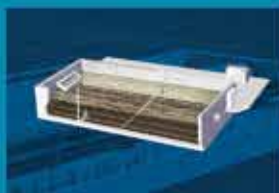
- Millions installed, backed by proven experience and extensive research and development.
- Proprietary advanced membrane material greatly enhances oxygen transfer performance and longevity.
- Proven aeration system components for long life with minimal maintenance.

Xylem's Sanitaire® brand provides innovative diffused aeration and biological wastewater treatment solutions. Installed in thousands of municipal and industrial wastewater treatment applications worldwide, Sanitaire technologies ensure reliable, energy efficient operations. Standard and customized solutions are designed with deep process capability, experience and regulatory insight to meet a challenging range of customer demands. For more information about Sanitaire, visit [www.sanitaire.com](http://www.sanitaire.com).



#### Bioloop® Advanced Oxidation Ditch

- Up to 50% energy savings compared to mechanically aerated ditches.
- Independent mixing and aeration for optimized process control and efficiency.



#### Vorelodos Aerobic Digester

- Meets regulations while reducing operational costs.
- 90% reduction in nitrogen and phosphorus returned to the main treatment process.
- Combines equipment, controls, training, support and service.



#### ICEAS™ SBR

- Proven BNR capability with low lifecycle cost.
- Minimal maintenance requirements through years of operation.
- Continuous flow technology allows peak flow handling and reduced basin volume.



#### CASPERON Activated Sludge Solution

- Custom designed to meet increased flow or nutrient removal requirements.
- Adaptable to a variety of activated sludge processes.
- Saves energy by varying dissolved oxygen and aeration intensity while maintaining solids in suspension with the VEMA controller.

[xyleminc.com](http://xyleminc.com)



Locally Represented by Kappe Associates, Inc.  
Tel: 301-846-0200  
Email: [Info@kappe-inc.com](mailto:Info@kappe-inc.com)  
[kappe-inc.com](http://kappe-inc.com)

**xylem**  
Let's Solve Water

# Special Events

## Vendor Get-Together

*Sunday, 6:00-7:30pm*

Exhibitors are invited to attend this informal gathering organized by the PWEA Exhibits & Sponsors Committee. Come meet the committee and PWEA leaders at Legends Restaurant & Sports 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.**





**KLH**  
ENGINEERS, INC  
Since 1982



[www.klhengineers.com](http://www.klhengineers.com)



**Water**  
**Wastewater**  
**SCADA**  
**Municipal**

<b>Pittsburgh</b> 5173 Campbells Run Road Pittsburgh, PA 15205 412.494.0510	<b>West Mifflin</b> 1020 Lebanon Road West Mifflin, PA 15122 412.494.0510	<b>Canonsburg</b> 130 Cecil Street Canonsburg, PA 15317 724.916.0061
--	--	---

[info@klhengineers.com](mailto:info@klhengineers.com)

**Large enough to solve big problems. Small enough to care.**





# GRINDER PUMPS

## 1 HP to 15 HP

- ✓ HIGH HEAD
- ✓ HIGH FLOW
- ✓ REVERSING UNITS
- ✓ COMPLETE  
PREASSEMBLED  
PACKAGES
- ✓ STANDARD &  
HAZARDOUS DUTY
- ✓ 100% FACTORY TESTED

[zoellerengineered.com](http://zoellerengineered.com)



South Jersey, Northern Delaware  
and Eastern Pennsylvania  
609-551-2438  
[www.gtsmithpumps.com](http://www.gtsmithpumps.com)



PO Box 542, Malvern, PA 19312  
40 Lloyd Ave, Ste 202, Malvern, PA 19312  
610-296-0970; FAX 610-640-4599  
[sales@gaylecorp.com](mailto:sales@gaylecorp.com)



2146 Chamber Center Drive  
Ft. Mitchell, KY 41017  
T: 859.426.5178 | F: 859.426.5177  
[sullivanenvtec.com](http://sullivanenvtec.com)

# Special Events

## Plant Tour

Hosted by the Professional Operators Committee  
Altoona Water Authority Westerly Treatment Facility

Monday, 1:00-3:30pm

The wastewater from the City of Altoona and a portion of Logan Township and Allegheny Township is conveyed to the treatment facilities known as the Westerly and the Easterly Treatment Plants. The annual average flow of the Westerly Facility is 10.8 MGD with a permitted design hydraulic capacity of 16.2 MGD. This facility is capable of handling flows of up to 60 MGD+ during wet weather. The Westerly treatment facilities provide advanced secondary treatment capability normally removing 95% of organic and suspended solids.

Both treatment facilities are controlled and monitored by identical computerized process control systems. Each facility is made up of five-unit processes; preliminary treatment, flow equalization, activated sludge process, clarification & disinfection and, biosolids handling process. Plant operators, through the computerized control system screen, can monitor the entire treatment process, or they can manually control equipment from this centralized system. Flows, tank levels, valve positions, pH and dissolved oxygen levels, and the operation of blowers, pumps, flow gates and equalization tanks are all controlled automatically from data fed to the computer.

The Altoona Water Authority has upgraded the Westerly Treatment Facility into a Water Resource Recovery Facility (WRRF) that

converts High Strength Organic Waste (HSOW) into renewable energy in the form of biogas and upgraded the solids handling equipment to further treat wet biosolids to a Class A Exceptional Quality product.



Major Treatment improvements include:

- New High Strength Organic Waste Receiving Station
- New High Strength Organic Waste and TWAS Blend Tank
- New Anaerobic Digesters and Digestion Equipment
- New Digester Control Building
- New Biogas Handling Systems
- New Digestate Storage (repurpose of existing tank)
- Refurbishment of Existing Gravity Belt Thickener
- Replacement of Existing Belt Filter Press with New Centrifuge
- New Centrate Holding Tank
- New Cake Receiving Station, Cake Conveyors, Storage Bunker, and Pumps
- New Cake Drying System including Dried Cake Loadout

**Be sure to register in advance to reserve your seat on the bus. A limited number of tickets may be available on-site, subject to prior sale. The cost is \$35 per person. Bus will begin boarding at 12:30pm and will depart the hotel at 12:45.**

**DESIGNED FOR PEOPLE.  
DESIGNED FOR YOU.**

Engineering | Planning | Infrastructure Solutions

[www.hrg-inc.com](http://www.hrg-inc.com)



HRG is a proud supporter of the PennTec Conference.







# From Pittsburgh to Philadelphia

Our expertise in wastewater and stormwater management, trenchless technology, biosolids, and more is helping clients in Pennsylvania save money, reduce their carbon footprint, and protect the state's waterways. Find out what we can do for you.

**For more information, write to [americas@mottmac.com](mailto:americas@mottmac.com) or call 800.832.3272.**

**[mottmac.com](http://mottmac.com)**



## 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.**

A scenic view of a river flowing through a lush green forest, with large rocks in the water.

# **WRA**

## **WATER AND WASTEWATER**

### Planning, Design, and Construction Management

People Focused - Project Driven  
[www.wrallp.com](http://www.wrallp.com)





*AquaNereda® Installation:  
Wolcott WWTP at Wolcott, KS*

## THE ONE AND ONLY. TRUE AEROBIC GRANULAR SLUDGE TECHNOLOGY

With over two decades of installed experience at more than 100 facilities worldwide, Nereda® technology is the **One and Only** true aerobic granular sludge on the market today.

Since its introduction to the U.S. and Canada in 2017, more than 40 AquaNereda® plants are currently in design, under construction or in operation throughout North America.

Consultants and end-users continue to realize the process and cost saving benefits associated with AquaNereda technology through on-site pilot testing, installation visits and technical seminars.

### ADVANTAGES OF AQUANEREDA® TRUE AGS TECHNOLOGY:

- Design MLSS of 8,000 mg/l greatly reduces footprint
- Capable of enhanced nutrient removal
- Suitable for retrofits and greenfield sites
- Exceptional effluent without chemical addition
- Robust process that adapts to changing conditions
- Applicable for municipal and industrial waste streams
- Significantly less construction cost compared to conventional treatment
- Energy and chemical savings results in lowest cost of ownership



SVI<sub>5</sub> comparison of aerobic granular sludge (left)  
and conventional activated sludge (right)



**AQUA-AEROBIC SYSTEMS, INC.**  
A Metawater Company

[www.AquaNereda.com](http://www.AquaNereda.com) | 815.654.2501

**Represented by:**



**Bill LaPorte** (Eastern Pennsylvania)  
P 717.433.7837 | [wlaporte@envirep.com](mailto:wlaporte@envirep.com)  
**Dave Lounsbury** (Central Pennsylvania)  
P 717.940.0292 | [tlcenvironmental@aol.com](mailto:tlcenvironmental@aol.com)



**Greg Madia** (West Pennsylvania)  
P 412.487.7140 | [gmadia@pumpmanpittsburgh.com](mailto:gmadia@pumpmanpittsburgh.com)

Aqua-Aerobic Systems, Inc. is the  
exclusive U.S. and Canada provider  
of Nereda® technology developed by  
Royal HaskoningDHV.

# Special Events

## 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.**



**BUCHART HORN**  
ENGINEERS • ARCHITECTS • PLANNERS

Preserving, Protecting, and  
Improving Water Resources  
since 1945

Offices located throughout Pennsylvania:  
York • Pittsburgh • State College

[www.bucharthorn.com](http://www.bucharthorn.com)

**Water Resource Recovery Specialists**  
Consulting and Management Services  
Facility Start up  
Full Operations

**CAMDEN**  
Group

Contact Us: Kenneth Scherrieble - [info@camdengroupusa.com](mailto:info@camdengroupusa.com)  
Peter Wernsdorfer - [pwernsdorfer@camdengroupusa.com](mailto:pwernsdorfer@camdengroupusa.com)

[www.camdengroupusa.com](http://www.camdengroupusa.com) 315-245-4444



# CREATING A BETTER WATER ENVIRONMENT, **TOGETHER.**

- Treatment Facilities
- Pipelines
- Pump Stations
- Stormwater
- Infrastructure Financing
- Construction Services



Greater Hazleton Joint Sewer Authority Treatment Plant  
Hazleton, Pa.

10 Pennsylvania Offices  
412.503.4369  
[gannettfleming.com](http://gannettfleming.com)



**GANNETT  
FLEMING**

# Special Events

## 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.



### WORLD'S FIRST WASTEWATER PUMPING SYSTEM WITH INTEGRATED INTELLIGENCE

This revolutionary system delivers optimal performance while reducing your total cost of ownership. It also offers unparalleled flexibility and simplicity on a whole new level. You might even say it thinks for itself. We invite you to enter a new era in wastewater pumping with Flygt Concertor.

**One powerful solution. Unlimited possibilities.**

**For more information visit our booth or contact your local Xylem product sales professional.**

2330 Yellow Springs Rd  
Malvern, PA 19355  
**610-408-6500**



**NEW**  
**CONCERTOR™**  
PUMPING SYSTEM WITH  
**INTEGRATED INTELLIGENCE**

[www.xylem.com](http://www.xylem.com)

**xylem**  
Let's Solve Water

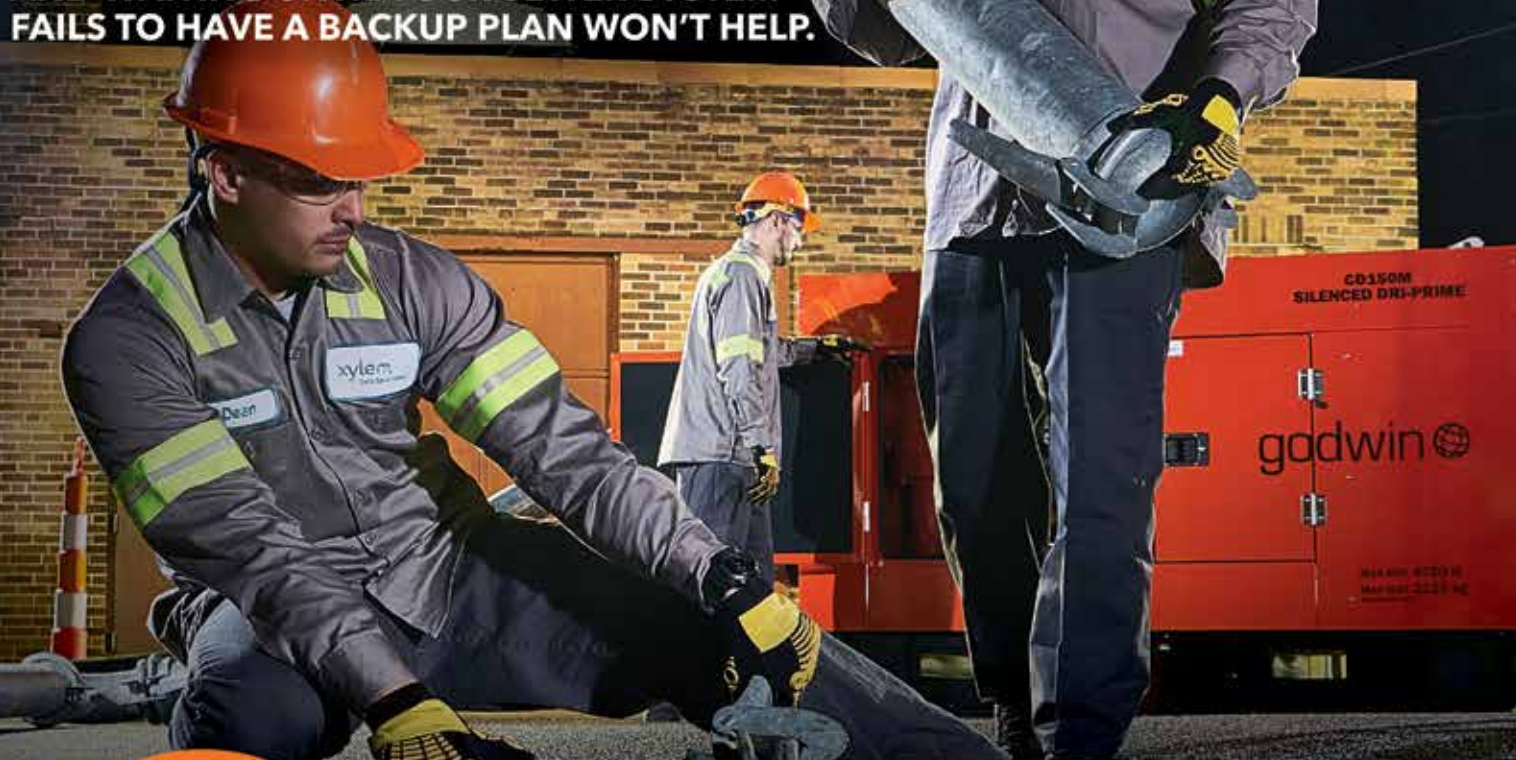




godwin

# WATER WON'T GO EASY

AND WAITING UNTIL YOUR SEWER SYSTEM  
FAILS TO HAVE A BACKUP PLAN WON'T HELP.



**PUMPS  
FOR RENT.  
EXPERTISE  
INCLUDED.**

Creating a contingency plan with Xylem ensures you're ready for an unexpected water event. We're the power behind the names you trust, like Godwin and Flygt, and we're always on and close by.

To get your plan, call a nearby branch or visit our website at: [www.xylem.com](http://www.xylem.com)

**Pittsburgh:** 724-266-6936

**New York:** 607-215-0668

**New Jersey:** 856-467-3636

**xylem**  
Let's Solve Water

# 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.**



## Your Complete Chemical and Equipment Provider for Water and Wastewater Treatment

- ✓ Mini bulk delivery
- ✓ Highly trained, local technicians
- ✓ Tailored treatment programs designed specifically for your facility
- ✓ Wide range of water and wastewater treatment chemicals
- ✓ Large selection of equipment: pumps, tanks and so much more



**LOCAL SERVICE: 877.731.8187**  
[www.hawkinsinc.com](http://www.hawkinsinc.com) • [wtg@hawkinsinc.com](mailto:wtg@hawkinsinc.com)





# Experience

**RAM Industrial Services** (Water Technology Division) is located in Pittsburgh, Pennsylvania. RAM manufactures and represents "*Best in Class*" products and services for municipal and industrial water and wastewater treatment applications.



(412) 610-5388

(724) 695-5366

[mike.presutti@iss-na.com](mailto:mike.presutti@iss-na.com)

## Pumps & Pumping Systems



**NETZSCH**



## Pump Repair Services

- 24 / 7 Field Service
- All Manufacturers
- Annual Service Contracts

## Sub Contractors

- Installation
- Fabrication
- Welding
- Laser Alignment
- Vibration Analysis
- Start-up & Troubleshooting

## UV Disinfection System

- Horizontal & Vertical

## Aqualitec Screens

- Screenshot
- Raketec
- Compactec
- Grittec



**Aqualitec**  
Screening Equipment & Sludge Treatment

## Aqualitec EMO—Sludge Dewatering

- Belt Filter Presses—0.6 to 3 meters
- Combo GBT & BFP—0.6 to 3 meters
- Fully Enclosed Option
- Stand Alone GBT
- Plate & Frame Filter Press

## Wastewater Treatment Systems

- Sequencing Batch Reactors (**SBR**)
- Continuous & Batch Style
- Retrofitting of Existing SBRs
- Conversion of Conventional Style Activated Sludge Design
- Extended Aeration Treatment Plants
- Tertiary Filters—Multimedia Downflow Design
- Denitrification Filters (Anoxic Style)
- Membrane Bioreactors (**MBR**)
- Moving Bed Bioreactors (**MBBR**)
- Iron & Manganese Filters
- Packaged Surface Water Treatment Systems
- Pre-Engineered, Prefabricated Pump Stations

## Control Panels

- NEMA 1, 3R, 4, 4x, 7, 12
- PLC—Programable Logic Control
- VFD's Cutler Hammer, Alan Bradley, ABB
- NEMA Starter
- IEC Starter
- SCADA Systems
- Engineering & Design



**EPOXYTEC™**



# **Epoxytec:** **Your I&I Solution** **for Manholes**

As inflow and infiltration (I&I) experts, Epoxytec representatives have the experience to provide solutions to meet your I&I collection system needs. **To learn more, scan the QR code above or stop by our booth during the PennTec Conference and visit with your local representatives.**



**Atlantic Coating Consultants**

**t.** 855-855-0100 **e.** [atlantic@tnemec.com](mailto:atlantic@tnemec.com) **w.** [tnemec.com/acc](http://tnemec.com/acc)





# Special Events

## Back by popular demand is the PWEA Biosolids Beauty Contest!

Across from Booth 97

The Exhibitor & Sponsor's and Biosolids Committees are once again hosting this fun contest at the 2024 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 18. Who will be crowned winner of the PWEA 2024 Biosolids Beauty Contest?

Please contact this via email 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 17, 2024; 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 2024.

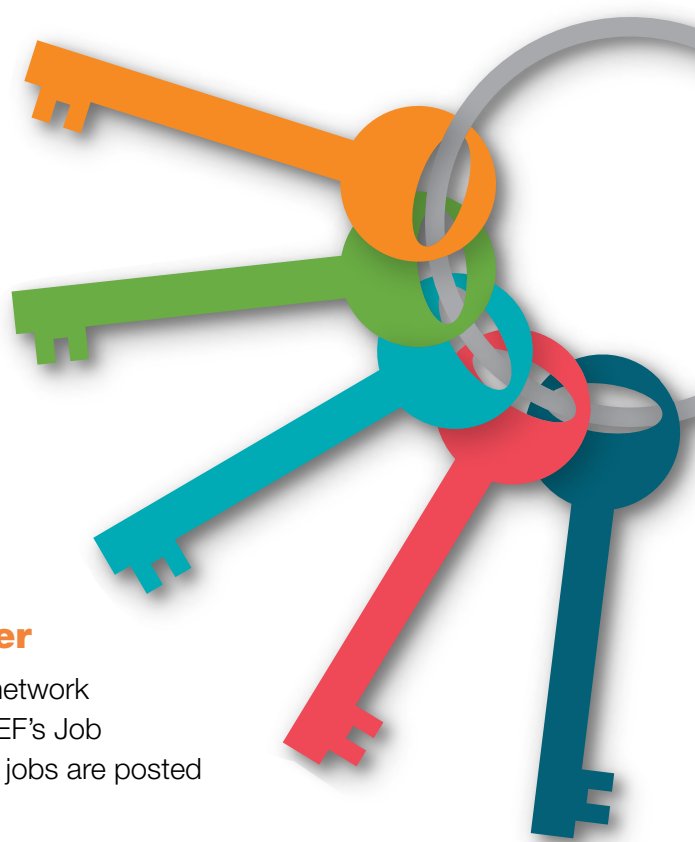


If you're trusted to protect public health and the environment, **we can help.**

**Hazen** all things water®

[hazenandsawyer.com](http://hazenandsawyer.com)

# unlock the power of we



The **Water Environment Federation (WEF)**...we are the water quality people.

As a **global water sector leader**, our mission is to **connect** water professionals; **enrich** the expertise of water professionals; increase the awareness of the **impact** and value of water; and provide a platform for water sector innovation.

**get connected, engaged and make the most of WEF membership!**

## **advance your career**

Tap into the leading career network for the water community, WEF's Job Bank, where dozens of new jobs are posted each month.

## **sharpen your professional skills**

Stay informed about the latest innovations, trends, and proven solutions through WEF's publications and educational programs, including: WEFTEC®, WEF Specialty Conferences, and free WEF webcasts (earn CEUs and PDHs). WEF members receive exclusive discounts on our educational programs and products.

## **network and build relationships**

Within WEF and local Member Associations (MAs), members work to help each other develop and grow professionally, while building valuable relationships with industry partners and prospects. Joint WEF/local MA membership ensures your access to professional resources at global and regional levels.

## **impact the future**

WEF's committees are a driving force behind the organization's work. Committee participation is a great opportunity to get involved, make a difference in the organization and contribute to our work within the sector.

## **increase awareness and recognition in your industry**

Each year, WEF recognizes individuals making outstanding contributions to the water environment profession with awards, fellowships and other distinguished honors. WEF members also gain access to speaking and publishing opportunities.



For more information about WEF membership benefits, please visit us at [www.wef.org](http://www.wef.org) or call 1.800.666.0206 (1.571.830.1545 globally).



PumpMan Pittsburgh is the region's leading provider of equipment sales, service & repair for water and wastewater treatment equipment in the Municipal, Commercial, and Industrial markets.

## SERVICE YOU CAN TRUST



- Industry Leading Experience & Expertise
- Full Line of Water and Wastewater Treatment Equipment
- 24/7 In Shop and Field Service Maintenance & Repair
- Planned Maintenance Contracts

**Our technicians are on-call 24/7 to minimize downtime.  
Call for emergency service at 1.866.929.3451.**

**412.487.7140**

**[pumpman.com/Pittsburgh](http://pumpman.com/Pittsburgh)**

**PITTSBURGH OFFICE**

3812 William Flynn Hwy, Bldg. 2 • Allison Park, PA 15101  
412.487.7140 • [pumpman.com/Pittsburgh.com](http://pumpman.com/Pittsburgh.com)

**WV OFFICE**

1740 Union Carbide Drive, Bldg. 740  
South Charleston, WV 25303  
304.546.5875 • 304.444.0227

# Technical Program Details

An extra 5 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 – RM 206

#### Emerging Challenges & Resiliency

*Moderators: Charles Winslow, GHD;  
Richard Valiga, Tully Environmental*

#### 8:40am-9:10am

##### Solids Management Optimization through Design and Operation

*Speaker: Rudy Kilian, PE, Carollo Engineers, Inc.*

Solids processing represents a significant portion of the capital and operating costs of wastewater treatment. The presentation will present design features and operating strategies to reduce the costs of biosolids processing and disposal.

#### 9:15am-9:45am

##### Evaluation of Innovative Biosolids Management in the Circular Water Economy (WRF #5169)

*Speaker: Asa Lewis, PhD, Hazen & Sawyer*

In response to rising challenges of contaminants of emerging concerns, greenhouse gas emissions, and limited land availability, many innovative biosolids management alternatives have emerged, providing utilities with new treatment perspectives. A holistic evaluation framework was developed to evaluate the potential of innovative biosolids management alternatives in addressing emerging challenges.

#### 10:20am-10:50am

##### Nation Wide Assessment of Cost Impacts to the Clean Water Agencies Triggered by PFAS

*Speaker: Pooja Sinha, Stantec Consulting Services Inc.*

Wastewater utilities are a collection point for per- and polyfluoroalkyl substances (PFAS). Significant programmatic and capital infrastructure investments will be required to comply with existing and anticipated PFAS regulations on discharged effluent, residuals, and biosolids. This NACWA sponsored study was conducted in 2022-2023 to obtain better quantification of these costs.

#### 10:55am-11:25am

##### Treating PFAS in Biosolids

*Speaker: Micah Blate, Hazen and Sawyer*

This presentation will provide an update on PFAS in biosolids, with specific emphasis in treatment alternatives. Results from full-scale demonstrations of gasification/pyrolysis and supercritical water oxidation will be presented.

#### 11:30am-12:00pm

##### Investigations of Microplastics in Biosolids – A Case Study in Philadelphia

*Speaker: Vijay Bhatia PhD, Philadelphia Water Department*

The morphology and composition of microplastics in biosolids was investigated. Morphology observed included fibers, fragments, films, foam, and beads. Major composition contributors included PET (17.5%), polyacrylates (12%), polystyrene (8.3%), poly(ethylene-propylene)-diene (4%), cellulose triacetate (3%), polypropylene-polyethylene-copolymer (3%), polyamides (3%), and polyurethanes (2.3%). In addition, softening agents, additives, and plasticizers have also been identified.

## COLLECTIONS SYSTEMS PROGRAM – RM 207

#### REhabilitation

*Moderators: Roger Lehman, Weston Solutions;  
Chris Patackis, Brown & Caldwell*

#### 8:40am-9:10am

##### Providing Long-Term Service Life Renewal and Infrastructure Conflict Resolution

*Speaker: Sean P. Riley, PE, HDR*

When two 30-inch water transmission mains were identified within the crown of a large diameter sewer beneath a park redevelopment project, HDR developed sewer and watermain designs under the Pittsburgh Water and Sewer Authority Large Diameter Sewer Rehabilitation Program to ensure long-term infrastructure service life beneath the to-be redeveloped park.

#### 9:15am-9:45am

##### A Long Shot – Non-Circular CIPP of the 110-year-old Front Street Interceptor

*Speaker: Jeffrey Bowra, PE, PMP, Capital Region Water*

ASCE MOP 145 was the basis for this CIPP rehabilitation of CRW's Front Street Interceptor originally constructed in 1911. Using over 25 liner 'shots', the contractor installed 14,400 LF of CIPP liner in the non-circular interceptor using steam-cured and water-cured CIPP methods.

#### 10:20am-10:50am

##### Innovative Auger Boring Approach for Rehabilitating a Century-Old Combined Sewer

*Speaker: Jeff Lenner, PE, Mott MacDonald*

Mott MacDonald presents an innovative sewer rehabilitation project conducted in the City of Pittsburgh. Learn how an Auger Boring sewer installation was used to renew a century old VCP combined sewer that is over 30-ft deep. This presentation shares lessons learned and offers a blueprint for addressing similar complex sewer rehabilitation challenges.

#### 10:55am-11:25am

##### I&I Control Using Chemical Grouting in Princeton, NJ

*Speaker: Andrew Filippi, P.E., Sewer Engineer, Municipality of Princeton*

The Municipality of Princeton, New Jersey chose chemical (acrylamide) grouting as the primary technology used in their Mini-System #35 Sanitary Sewer Rehabilitation Project. The objective of this presentation is to demonstrate the benefits of using chemical grouting for inflow and infiltration reduction and increasing the useful life of a sewer by sealing and stabilizing the pipe envelope, discuss the history and drivers behind Princeton's choice of rehabilitation technologies, and share lessons learned on the project.

#### 11:30am-12:00pm

##### Innovative Use of Expanding Polymer Grout in Water and Wastewater Facilities

*Speaker: William D. Friedah, PE, Utility Services Group, Inc.*

Expanding Polymer Grout has been used for years in the reduction of I&I, however there are new and innovative solutions and products to assist Operators and Engineers in maintaining collection and treatment facilities. Learn the basics of what is possible and what has been completed in infrastructure rehab and maintenance.



# Technical Program Details

## ENGINEERING & CONSTRUCTION PROGRAM – RM 208

### Engineering Tools & Methods

*Moderators: Scott Armbrust, American Water; Nickolas Hines, Material Matters*

**8:40am-9:10am**

#### Design Tools to Effectively Collaborate with Engineers, Owners, and Contractors

*Speaker: Matt Crow, PE, Hazen and Sawyer*

This presentation will provide an overview of innovative design tools that are available to engineering firms and utilities in order to develop a higher level of interaction and collaboration than in years past. Platforms such as HoloBuilder and BIM 360, which allow a direct link to BIM 3D models, will be presented.

**9:15am-9:45am**

#### Solving the Municipal Wastewater Puzzle in the Way that it Wants to be Solved – The Key to Project Success

*Speaker: Joseph M. Gianvito, P.E., KLH Engineers, Inc.*

The Rochester Area Joint Sewer Authority recently completed a \$53M project. There were many challenges along the way, including consent order deadlines, site constraints, soil contamination, and the pandemic. However, the project was completed in a way where all parties involved were left with a sense of pride and fulfillment.

**10:20am-10:50am**

#### Design Tools to Effectively Collaborate with Engineers, Owners, and Contractors

*Speaker: Steven Kestel, APG-Neuros*

Model Predictive Control (MPC) is an improvement on traditional PID based aeration control methods. This case study describes how a MPC system with Ammonia Based Aeration Control logic (ABAC) improved the accuracy of control while reducing the dissolved oxygen at the MWR North Treatment Plant.

**10:55am-11:25am**

#### Taking Your Data to the Next Level:

##### How to Best Model Full-Scale PFAS Removal with GAC

*Speaker: Adam Redding, PhD, Calgon Carbon Corporation*

Granular activated carbon (GAC) is typically evaluated for PFAS removal from water using rapid small-scale column tests (RSSCTs) or pilot studies, and test results are often misinterpreted. This presentation will cover how to best use this information, and the EPA's GAC breakthrough model, AdDesignS, to estimate GAC full-scale performance.

**11:30am-12:00pm**

#### Case Study – Overview of Protecting 4 Pennsylvania Wastewater Treatment Plant Clarifier Launderers from Premature Corrosion

*Speakers: Heather Stiner, Market Segment Manager – Water Infrastructure and Toby Butler – Business Development Representative, both with Sherwin-Williams*

This presentation will provide an overview of a clarifier launder project completed in Reading Pennsylvania. The project consists of protecting the launders from premature corrosion using protective coatings. All steps of the project, including pre-job, surface preparation, coating application and post application will be reviewed. Key takeaways will include: questions and observations to be taken during pre-job; hurdles and necessities during surface preparation; importance of proper coating selection; and post job inspection.

## UTILITY MANAGEMENT & GOVERNMENT AFFAIRS PROGRAM – RM 109

### Digital Tools for Smarter Water

*Moderators: Maria White, PA One Call; Mike Kyle, LASA*

**8:40am-9:10am**

#### Streamlining and Digitizing Municipal Utility Operations Using GIS and Automation

*Speaker: Andrew Tuleya, ARRO Consulting, Inc.*

Explore how municipalities can integrate GIS into utility operations. Presentation to include automating, mapping, and digitizing assets and operations through GIS, creating scheduled and event-based notifications to track operations and maintenance activities (including PA One Calls), integrating utility mapping into a digital, mobile-friendly platform, and automating report production.

**9:15am-9:45am**

#### From Pipes to Passwords:

##### Asset Management as the Backbone of Cybersecurity

*Speaker: Heather Heltzinger, LO, Renegade Solutions, LLC*

An exploration of the integral link between asset management and cybersecurity in water and wastewater sectors. The presentation will highlight emerging technologies, evolving regulations, and the practical impact of either implementing or neglecting these essential systems, focusing on risk mitigation and operational efficiency.

**10:20am-10:50am**

#### What does a Digital Transformation Take – How Water and Wastewater Agencies are Making the Journey

*Speaker: Shawn Dent, PE, Carollo Engineers*

A water/wastewater utility initiated a Digital Water System (DWS) project which would guide the organization in their digital transformation. The purpose of the DWS is to develop an open-architecture database/dashboards to provide a nexus for an integrated software system that will provide a "smarter water system" from planning through operations.

**10:55am-11:25am**

#### Many Utilities are Moving to Peak Wet Weather Flow Management to Handle Peak Flow & Prevent Untreated Overflows

*Speaker: John Dyson, Aqua-Aerobic Systems, Inc.*

Utilities must manage peak flows that exceed biological treatment capacity. Cloth media filtration has been successful for this peak flow treatment. The presentation highlights wet weather treatment projects including piloting, permitting, revisions to consent decrees and facility design. It highlights data from a recent pilot study in Harleysville, PA

**11:30am-12:00pm**

#### Using AI to Better Understand Your Community Values: Introducing GHDUnpack

*Speakers: Elizabeth Cheeseman & Bhavin Bhayani, GHD*

Join our session to unlock the true potential of your messy community data – past, present, and future. With AI-assisted engagement reporting, turn community perspectives into your strongest asset. Learn about the global innovation of GHDUnpack™. Richer insights, better decisions, and defensible, data-driven results. Engage your community with confidence – finally!

# Technical Program Details

## STORMWATER PROGRAM – RM 107

### Green Infrastructure & Equity

Moderators: Brad Smith, ARRO; Juan Pablo Vicuna Reyes, Stantec

**8:40am-9:10am**

#### What's the Hold Up? Assessing Inlet Conveyance in Philadelphia's Green Stormwater Infrastructure

Speaker: Johanna Batterton, Philadelphia Water Department, Office of Watersheds

Philadelphia's Green City, Clean Waters initiative includes the management of over 1,200 public GSI systems. Most of these systems convey water through standardized inlets. Water level sensors were deployed at eight of these inlets to monitor changes in water level between GSI systems and inlets to characterize and investigate conveyance.

**9:15am-9:45am**

#### Cracking the Code:

##### Developing GSI Analysis Tools with No Formal Training

Speaker: Taylor Heffernan, Philadelphia Office of Watersheds

The Philadelphia Water Department's GSI monitoring program is massive in scale. Its capacity far exceeds what would be possible with an exclusively spreadsheet-based toolset. PWD has developed a custom in-house database and scripting software to allow this growth. Other teams stand to boost effectiveness, cut costs, by innovating in this way.

**10:20am-10:50am**

#### Building an Equitable Stormwater Program for an Environmental Justice Community:

##### Stormwater Authority of the City of Chester (SAC), PA

Speaker: Adi Pise, P.E. HDR, Inc.

Managing stormwater can be challenging in communities that already face economic hardships, a dilemma often at the forefront of environmental justice communities. However, with determined leadership, federal and state support, and efficient program management, communities can realize success in improving their program. Highlights of the journey of one such Stormwater Authority of the City of Chester, and EJ Community, is presented in this session.

**10:55am-11:25am**

#### Quantifying the Economic and Social Benefits of Nature Based Floodplain Projects:

##### A Case Study in the Saw Mill Run Watershed in Pittsburgh, PA

Speaker: Tom Batrone, HDR

The Saw Mill Run watershed in Pittsburgh, PA is historically prone to dangerous flash flooding. As a result, significant disinvestment has occurred. This presentation will outline an approach for quantifying the economic and social impacts of nature-based flood mitigation strategies.

**11:30am-12:00pm**

#### Challenges and Lessons Learned Dealing with FEMA on Hurricane Ida Disaster Recovery Projects with FEMA Reimbursement

Speaker: Vanessa Nedrick, PE, MSEM, Remington & Vernick Engineers

Navigate FEMA's reimbursement process confidently with insights from Warminster Township Municipal Authority's Hurricane Ida recovery projects. Learn to master the Grants Portal, avoid common pitfalls and optimize submissions through real-world case studies. This presentation empowers municipalities and authorities to secure vital disaster relief funds effectively.

## MONDAY AFTERNOON

## BIOSOLIDS PROGRAM – RM 206

### Emerging Challenges & Resiliency

Moderators: Charles Winslow, GHD; Richard Valiga, Stantec

**1:00pm-1:30pm**

#### Understanding the Fate and Destruction Mechanisms of PFAS Under Supercritical Oxidative Conditions

Speaker: Sudhakar (Sunny) Viswanathan, 374Water

This paper details the use of supercritical water oxidation for the elimination of recalcitrant wastes like PFAS in sludge. The study shows that waste destruction is possible without producing any undesired by-products. The studies produced valuable data to support design and deployment of full-scale application.

**1:35pm-2:05pm**

#### Double Your Cake Solids in Under Two Minutes

##### A Performance Review of Elode Drying Technology

Speaker: Christopher T. Boyd, Director of Sales, Charter Machine Co.

The Charter Elode drying technology has been full scale pilot testing across the US for the past 2 years with over 100 municipal sites visited. Also, a full review of the first USA installation of a 3m full size unit.

Elode drying technology doubles the cake solids coming off of any dewatering equipment in under 1 min by only using electricity. This technology does not use heat or any other fuel, just setting up a DC electric field to realign sludge particles to allow water to drain off and therefore make the already dewatered cake solids much drier. This presentation will review all of the pilot testing data and show the trends, sweet spots, limitations and more. Including full scale installation from Henderson KY that has been running since September 2023.

**2:10pm-2:40pm**

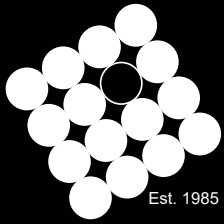
#### PXVNEO – Hydrothermal Carbonization at the Borough of Phoenixville WWTP

Speaker: Jeremy Taylor, SoMax Circular Solutions

Hydrothermal Carbonization is the cornerstone technology in SoMax Circular Solutions' Resource Recovery Platform for organic wastes. SoMax's HTC process is a continuous thermochemical process that utilizes moderate temperatures and pressures of ~350°F – 430°F (180°C–220°C) and less than 580 psi (40 bar). The HTC reaction has variable retention times based on the feedstock from as short as thirty (30) minutes and up to four (4) hours. The product of HTC is a carbon dense solid known as hydrochar.

In 2021, SoMax and the Borough of Phoenixville Wastewater Treatment Plant were Grand Prize winners of the Department of Energy Water Resource Recovery Prize for the design and planned implementation of the first commercial scale Hydrothermal Carbonization (HTC) plant in the United States. The Water Resource Recovery Prize sought scalable, repeatable solutions that can be implemented at small to medium sized wastewater treatment plants across the US, with the goal of recovering 50% more resources from the wastewater.





# LSSE

Civil Engineers and Surveyors

LSSE • Rabell • Senate



Interim Facility Pipe Manifold and Tanks  
Center Township

*Headquarters:*

Coraopolis, Allegheny County, PA

*Branch Offices:*

Greensburg, Westmoreland County, PA

Albion, Erie County, PA

Dublin, Franklin County, OH

Center Township, Beaver County, PA

Harmar, Allegheny County, PA

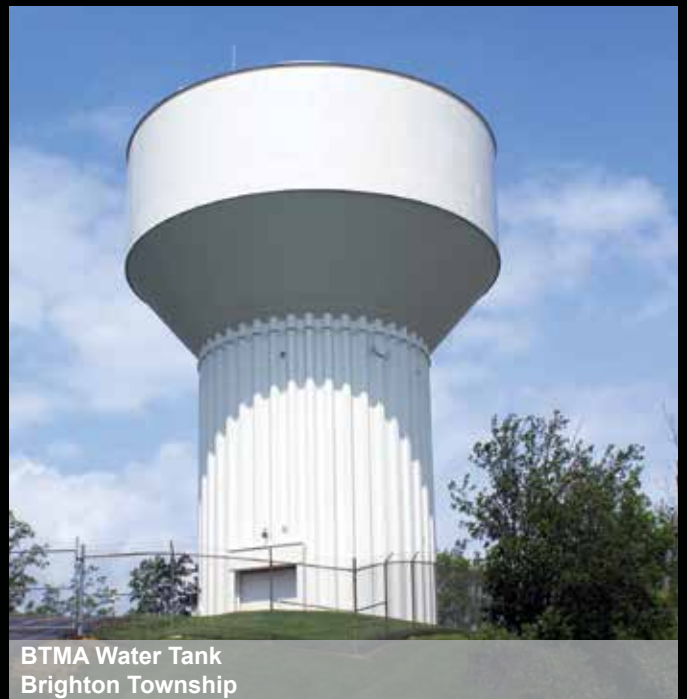
White Oak, Allegheny County, PA

Kittanning, Armstrong County, PA

Washington, Washington County, PA

412-264-4400 | [info@lsse.com](mailto:info@lsse.com)

Visit us at [www.lsse.com](http://www.lsse.com)



BTMA Water Tank  
Brighton Township

## Professional Services

### MUNICIPAL

- GIS/Mapping/Asset Management
- Grants Procurement and Administration
- Green Infrastructure
- Landscape Architecture
- Parks and Recreation
- Planning
- Roadway and Pavement
- Site Design
- Stormwater/MS4
- Surveying
- Water
- Wastewater
- Utilities

# MUNICIPAL MAINTENANCE CO.

SPECIALIZING IN WATER & WASTEWATER EQUIPMENT

MANUFACTURERS REPRESENTED:

---



- Vertical Turbine Pumps
- Horizontal Split Case Pumps
- Centrifugal End Suction Pumps



- Heavy Duty Wastewater Pumps
- Submersible & Drypit Wastewater Pumps
- Hardened Steel Pumps with Abrasive Solids Handling Capabilities



- Submersible & Drypit Wastewater Pumps
- Vertical Multistage Pumps
- Submersible Well Pumps
- VFDs, Controls, & Booster Pump Systems
- Dosing Chem Feed Pumps & Systems



- Horizontal Split Case Pumps
- Centrifugal End Suction Pumps
- Vertical In-line Pumps



- Direct In-Line Wastewater Pump Systems



**Franklin Electric**

- Submersible Well Pumps & Motors
- Variable Frequency Drives & Starters



- Trailer & Skid Mounted Bypass Pump Systems
- Vacuum Assisted & Self-priming Pumps
- Centrifugal End Suction Pumps



- Electric Motors
- VFDs, Soft Starters, & Controls
- Custom Built Control Panels

---

Contact us today to learn more about our Engineered Equipment Solutions

Municipal Maintenance Co.  
1352 Taylors Lane  
Cinnaminson, NJ 08077  
(856) 786-9434

[equipmentsales@mmc-nj.com](mailto:equipmentsales@mmc-nj.com)  
[www.mmc-nj.com](http://www.mmc-nj.com)



# Technical Program Details

**3:40pm-4:10pm**

## **South San Francisco-San Bruno Water Quality Control Plant Employs High-Solids Digestion to Enable Food Waste Co-Digestion & Advance Energy Neutrality with Lowest Lifecycle Cost**

*Speaker: Margaret Laub Niehoff, Anaergia*

WRRF (Western Water Recycling Facility) incorporated high-solids digestion to cost-effectively expand capacity and avoid new digester build-out. Third-party validation showed healthy high-solids digester operations. WRRF used excess capacity for a food waste co-digestion pilot, setting the stage for the WRRF to advance energy-neutrality and California organic waste diversion mandates to support greenhouse gas reductions.

**4:15pm-4:45pm**

## **Waste & Energy Recovery Lead to Sustainability at the Clearwater WWTF**

*Speaker: William Rehkop, PE, Brown & Caldwell;*

*Colin O'Brien, Brown & Caldwell*

The presentation presents DTMA's (Derry Township Municipal Authority) recently completed Energy Enhancement project, which includes new biogas management and gas conditioning system, new cogeneration system, digester improvements and high-strength waste equalization basin. The presentation will present operational data of the 1-MW engine sets and project economics (capital costs, annual savings and revenue, etc.).

## **COLLECTIONS SYSTEMS PROGRAM – RM 207**

### **Pumping Stations**

*Moderators: Chris Patackis, Brown & Caldwell;*

*Lucas Chapman, Flow Assessment Services*

**1:00pm-1:30pm**

## **Planning and Preliminary Design of a 650 MGD Effluent Pumping Station**

*Speaker: Matt Crow, PE, Hazen and Sawyer*

This presentation will provide an overview of the planning, hydraulic modeling, and preliminary design efforts related to the proposed Northeast WPCP Effluent Pumping Station, a 650 MGD wet weather facility mandated by Consent Decree to be constructed and how these fits the flow scheme to meet PWD's (Philadelphia Water Department) Wet Weather needs.

**1:35pm-2:05pm**

## **Pump Station Consolidation (10MGD, 84-inch Micro Tunnel and 10k LF of 24-inch FM)**

*Speaker: Michael Bisignani, GHD*

GHD recently completed the planning, design, and construction services associated with the 36-inch Locust Grove Gravity Sewer, 10 MGD Pumping Station, and 24-inch forcemain. The project driver was to consolidate pumping stations in an effort to address a consent order and renew aged assets which needed upgraded and to address capacities. The focus of this presentation will be on the 84-inch ~1,200-foot microtunnel that passed under a MD DOT roadway, river, and railroad through two very different rock formations. The tunnel ultimately contained a 36-inch carrier pipe. Throughout construction there were many complications which will be focused on such as launching and receiving pit construction, ground water control, carrier pipe installation, and post construction grouting. The owner of the project was Alleghany County, Maryland, and the project was designed by GHD and built by Garney Construction.

**2:10pm-2:40pm**

## **Challenges of Installing a Wastewater Pump Station over an Artesian Aquifer**

*Speaker: Mike Zappone, PE, Carollo Engineers*

This presentation highlights the unique design and construction elements of installing a wastewater collection system pump station on a small site with unsuitable soils and artesian aquifers, and adjacent to a stream and wetlands.

**3:40pm-4:10pm**

## **Case Study: Using Sewer System Modeling to Aid in Reducing CSO's in the Borough of Waynesburg's Sewer System**

*Speaker: Derek L. Sellers, EIT, Gannett Fleming, Inc.*

Sewer system modeling is a useful tool to develop collection, conveyance, and treatment system improvement alternatives. This case study highlights Gannett Fleming's modeling efforts, development of alternatives, and resulting design of treatment system improvements as part of the Borough of Waynesburg's efforts to develop a revised Long Term Control Plan.

**4:15pm-4:45pm**

## **Assessing Rehabilitation Techniques Through Hydraulic Modeling**

*Speaker: Julia Manzano, EIT, Arcadis*

This presentation will show a novel method for modeling the impacts of manhole, main, tap, riser, lateral, and private-side sewer rehabilitation techniques. It is relevant to programs that assess impact of rehabilitation techniques on I&I. This method allows for countless rehabilitation strategies to be evaluated in a model to develop a catchment-tailored source reduction plans that optimizes cost and I/I reduction, including the ability to differentiate between inflow and rainfall induced infiltration, thereby reducing capital expansion projects.

## **ENGINEERING & CONSTRUCTION PROGRAM – RM 208**

### **Construction**

*Moderators: Chris Henry, Mott MacDonald;*

*Jeff Lenner, Mott MacDonald*

**1:00pm-1:30pm**

## **Doing More with Less: Utilizing Owner's Representatives to Get More Done**

*Speaker: David J. Kerr, Barton & Loguidice*

Water/wastewater infrastructure is deteriorating rapidly. Utilities are also experiencing a reduction in staff. So how do you get more done with less? Annapolis, Maryland is utilizing Owner's Representatives to help execute design-build contracts to replace infrastructure. This presentation will discuss the process, the necessary information, the benefits/disadvantages, and examples.

**1:35pm-2:05pm**

## **You Can't Build That! Well Maybe You Can: Lessons Learned from Construction Sequencing to Maintain the Operations of a WWTP.**

*Speaker: David Hechmer, PE PA, Mott MacDonald*

Working together to finish construction on time and on budget. Lessons learned from designing a construction sequence for the maintenance of plant operations compared to the contractor's means and methods.

# Technical Program Details

**2:10pm-2:40pm**

## **Selecting Design-Build to Consolidate and Streamline Multiple Projects at the H.L. Mooney AWRF**

*Speaker: Meredith J. Welle, PE, HDR*

This presentation will focus on why and how the PWCSA selected progressive design-build to rehabilitate, upgrade and modernize key unit processes across the H.L. Mooney AWRF, while maintaining service continuity and meeting current and future demand conditions.

**3:40pm-4:10pm**

## **Shutdowns and Tie-Ins for Incorporating a New 360 MGD Headworks at ALCOSAN.**

### **How Did We Do, and Where do We Head from Here?**

*Speaker: Isaac Katz, PE ENVSP, Whitman, Requardt & Associates, LLP*

The first major shutdowns and tie-ins have been completed on construction of a new 360 MGD headworks building for ALCOSAN. How did the tie-ins go and what did we learn to bring to future tie-ins and help keep the rest of the plant up and running with no issues?

**4:15pm-4:45pm**

## **DTMA Spring Creek Interceptor Upgrades and Dealing with Unforeseen Utility Conflicts**

*Speaker: Justin Bates, Herbert, Rowland & Grubic, Inc.*

A simple sanitary sewer interceptor upgrade to allow beer to continue to flow is grounds for re-design during construction due to private unforeseen utility conflicts throughout Chocolate Town USA.

## **UTILITY MANAGEMENT & GOVERNMENT AFFAIRS PROGRAM – RM 109**

*Moderators: Mark Pickering, GHD; Liz Cheeseman, GHD*

**1:00pm-2:05pm**

## **Beyond the Town Hall PowerPoint: How to Conduct Effective Engagement to Build Understanding and Support for Projects**

*Speaker: Samantha Villegas, EPA Chief Communications Officer, EPA Office of Water*

There's a Chinese Proverb that says, "Tell me, I forget. Show me, I remember. Involve me, I understand." True, effective engagement builds trust and fortifies the essential relationship your utility has with its community. In this session attendees will learn why engaging with customers (not just communicating to them) is so essential for project success, the full spectrum of engagement opportunities, how to pick the right level of engagement, and which engagement techniques are right for your project.

**2:10pm-2:40pm**

## **Utility Panel Discussion on the Benefits of Community Outreach**

*Speakers/panelists: Shannon Q. Drosnock, Executive Director Montgomery Township Municipal Sewer Authority, Mike Kyle, Executive Director Lancaster Area Sewer Authority, Andrew Moore, Director of Plant Operations Lehigh County Authority*

The panelists will describe their community and public outreach programs and practices, and discuss positive outcomes as well as potential pitfalls. Based on their experience, they will make recommendations on how other agencies can develop their own community outreach programs, and as a result generate good will.

**3:40pm-4:45pm**

## **DEP Update on wastewater and MS4**

*Jay E. Patel, P.E., Assistant Bureau Director, PA Department of Environmental Protection*

In this session, PADEP will provide an overview of regulatory programs that affect the water industry, and will highlight upcoming or potential changes in water, wastewater, and storm water regulations. This will also be an opportunity for DEP to talk to stakeholders about expectations with the current MS4 Permit.

## **STORMWATER PROGRAM – RM 107**

### **Green Infrastructure & Equity**

*Moderators: Brad Smith, ARRO; Juan Pablo Vicuna Reyes, Stantec*

**1:00pm-1:30pm**

## **Development? Inevitable. Storms? Unstoppable; Flooding Evaluation of the Route 51 Corridor**

*Speaker: Ifeanyi Odigboh, P.E., CFM, CPESC, Greenman-Pedersen, Inc.*

Communities in the South-Hills region of Pittsburgh have attempted to mitigate flooding over the years to no avail. An integrated 1D-2D model coupled with an innovative integration of SMS-SRH2D and PCSWMM mesh creation will be used to craft a wholistic flood mitigation approach to assess alternative strategies and alleviate flooding.

**1:35pm-2:05pm**

## **PA's Evolving Nutrient Credit Trading Program: An Update**

*Speaker: Nickolas Hines, Material Matters, Inc.*

Material Matters is deeply rooted in Pennsylvania's nutrient trading program, assisting with the purchase and sale of 250,000+ credits in CY2023. This presentation will discuss the multi-year trends of the program and identify future opportunities for the program – including enhanced engagement of the agricultural sector and interstate trading.

**2:10pm-2:40pm**

## **Lessons Learned on Implementation of Stormwater Fees – One Year Recap**

*Speaker: Vanessa Nedrick, PE, MSEM, Remington & Vernick Engineers*

In January 2022, the Warminster Municipal Authority implemented a stormwater fee. The implementation of the stormwater fee came with some challenges and successes. This presentation will discuss these challenges and successes, while outlining the lessons learned a year later regarding the implementation.

**3:40pm-4:10pm**

## **Stormwater Capture and Use –**

### **A Planning Approach, Case Studies and Future Research**

*Speaker: Elisa Garvey, PE, PhD, Carollo Engineers, Inc.*

Based on the findings of a Water Research Foundation project, this presentation explores various opportunities for stormwater capture and use, a decision framework that outlines associated challenges and benefits, and a list of research priorities to support more widespread implementation of stormwater capture and use as a water management strategy.



# Technical Program Details

**4:15pm-4:45pm**

## **Using GIS and Automation to Comply with MS4 Requirements**

*Speaker: Andrew Tuleya, ARRO Consulting, Inc.*

Leveraging GIS and automated services to establish, streamline and optimize an MS4 program. Presentation will touch upon providing digital public education and involvement opportunities, utilizing automation and mapping for IDDE, utilizing digital forms and GIS to complete utility inspections, creating a digital "good-housekeeping" plan, and identifying and tracking PRP/TMDL projects.

## **TUESDAY MORNING**

### **COLLECTIONS SYSTEMS PROGRAM – RM 207**

**8:00am-9:40am - Interactive Workshop**

*Moderators: Jeff Cantwell, Flow Assessment Services; Cheryl Paulin, Insituforms Technologies*

PWEA-Town is experiencing high infiltration and inflow in their sewer system and needs your help! This interactive workshop style (but not DEP approved for 1:1 operator CEU) will provide a fun and collaborative approach to exploring various sewer evaluation technologies. Teams will work together to develop an inspection plan to address the system's I/I challenges. Covered topics will include sewer inspection, flow monitoring and evaluation, and defect identification.

### **WET WEATHER FLOWS**

*Moderators: Matt Cichy, HRG; Melissa Smith, GHD*

**10:40am-11:10am**

#### **Manhole Inflow – The Uncomfortable Reality of How Much of our Peak Wet Weather Flow is Related to Sheet Runoff**

*Speaker: Jim Shelton, PE, Arcadis*

This presentation will show the videos of field trials, demonstrate the inspection rubric, show photographic examples of the inflow defects found, present the percentages of defects encountered, and present the corrective actions taken for each combination of defects found. This presentation will provide operations and engineering staff with specific data and lessons learned directly applicable to every sanitary sewer system.

**11:15am-11:45am**

#### **Eliminating Rainfall Induced Infiltration in Sewers with Limited Visual Defects – WSSC's Pilot Capital Grouting Program Results and Lessons Learned**

*Speaker: Andres F. Villarraga, Project Manager, General Manager's Office of Performance & Accountability WSSC*

WSSC conducted a pilot program to test the I&I reduction effectiveness, cost value, and longevity of capital grouting techniques to provide long-term structural stabilization and infiltration reduction for their sewer system. They selected 15 miles of collector sewers within a known leaky subbasin (PC05) within their Piscataway watershed, where baseline infiltration accounted for 60% of average dry day flow and rainfall derived infiltration effects were felt for several days following storms. Additionally, these were areas that had largely been previously CCTV'd and found to contain few structural defects. Pre- and post-rehabilitation flow metering was conducted. Air testing of mainline joints and lateral taps revealed significant leakage sources that were subsequently made watertight using chemical grouting at a fraction of cured in place liner costs. This presentation will report drivers, results, costs, and lessons learned.

### **ENGINEERING & CONSTRUCTION PROGRAM – RM 208**

#### **PFAS**

*Moderators: Mike Sturgill, Trident Actuator; Samantha Schmucker, HRG*

**8:00am-8:30am**

#### **Keeping Your i on PFAS –**

##### **The Role of Ion Exchange for PFAS Removal**

*Speaker: Margie Gray, PE, Mott MacDonald*

Ion exchange is an important unit process that can be used for PFAS removal. An overview of critical design criteria for PFAS selective ion exchange will be presented.

**8:35am-9:05am**

#### **Right-Sizing a WTP PFAS Removal System**

*Speaker: Mark L. Pickering, P.E., GHD*

Right-sizing media to remove PFAS/PFOA from groundwater presents many challenges. This case study presents the City of Aberdeen's study and bench-scale testing of GAC and Ion Exchange media to determine media most suitable media for delivered water quality. Lab results support the cost estimate and basis of design of the system.

**9:10am-9:40am**

#### **Mitigating PFAS transport within**

##### **Carbon-based Water Reclamation Facilities**

*Speaker: Christopher Curran, P.E., AECOM*

Treatment of per and polyfluoroalkyl substances (PFAS) is a prime example of how water recycling facilities can help break the circulation of forever chemicals. However, implementation of PFAS treatment strategies is challenging within the wastewater matrix. This study presents the effectiveness of PFAS treatment/destruction solutions for integration within carbon-based water reclamation facilities.

**10:40am-11:10am**

#### **Getting the Treatment Right – Pilot Study for an 80 MGD PFAS Surface Water Treatment Plant**

*Speaker: Mark A. Hubal, PE, BCEE, Remington and Vernick Engineers*

Installing PFAS treatment for an 80 MGD surface water treatment plant is a 100-million-dollar decision. To obtain the most cost-effective solution, a pilot study is necessary to determine the type and parameters of treatment. This case study will review the pilot process from test design through operation and conclusions.

**11:15am-11:45am**

#### **Raccoon Creek WTP PFAS Removal Pilot Project Abstract**

*Speaker: Mark Romers – Director of Water Technologies, ITAC/Filter Magic*

A Class Action Lawsuit was filed on February 23, 2021, in Summerville Georgia, alleging that multiple large companies illegally discharged toxic per- and polyfluoroalkyl substances (PFAS) into the Raccoon Creek watershed contaminating the raw water supply to the Raccoon Creek Water Treatment Plant that provides drinking water to Summerville Georgia.

# GAYLE CORPORATION

## PROUDLY CELEBRATING 40 YEARS OF SUCCESSFUL PROJECT OUTCOMES!

“Environmental Equipment Sales & Service” – *Since 1984*

Office (610) 296-0970 | Fax (610) 640-4599 | Inquiries: [sales@gaylecorp.com](mailto:sales@gaylecorp.com)



(Southeastern, PA territory – Philadelphia, Montgomery, Chester, Delaware, Bucks Counties)

Pre-engineered packaged pump & control systems, self-priming centrifugal pumps, submersible non-clog pumps, pressure booster systems, flows up to 15,000 GPM with end-suction centrifugal non-clog pumps



Submersible pumps, sludge and slurry pumps, submersible dry pit and axial flow propeller pumps, submersible process mixing equipment



“PolyBlend” - Liquid and dry polymer feed systems

“DynaBlend” – Liquid polymer feed systems



Submersible grinder pumps, solids handling submersible pumps, packaged pumps stations including complete control panel systems.



Bioclere modified trickling filter, iFas & MBBR fixed film wastewater treatment systems to 1,500,000 GPD



Horizontal split case, end-suction water pumps, ASTM 382 / NSF 61 approved for potable water use, dry pit non-clog sewage pumps



Landfill leachate pump systems



”Pipeliner” Sludge conditioning grinder



Verti-Line & Goulds vertical turbine pumps and aftermarket parts



Portable lifting solutions with davit crane systems



Packaged water booster systems for single source responsibility, NSF 61 certified for potable applications, UL508 listed custom control systems





# **GAYLE Corporation – Malvern, PA**

**Environmental Equipment Sales & Service – Since 1984**

Phone (610) 296-0970 | Fax (610) 640-4599  
E-mail: [SALES@GAYLECORP.COM](mailto:SALES@GAYLECORP.COM)

**Factory Authorized Distributor for KSB Submersible, Non-Clog Sewage Pumps & Mixers**

**“Trusted Quality Worldwide Since 1871”**

- **KSB Submersible Sewage Pumps in stock for immediate delivery**
- **Numerous models available to meet a wide variety of design flows (GPM) & pressures (TDH)**
- **Different impeller designs for effective & reliable long-term solids handling**
- **Custom Alloy Options**
- **Specialists in large flow, high pressure & high horsepower pumping applications**

**Replace your existing Xylem Flygt pumps with KSB!**

- **Save money!**
- **KSB submersible pumps retrofit to existing Flygt guide rails with adapter claw**
- **Silicon Carbide mechanical seal faces for superior longevity before service**
- **“Potted” Cable Entry Seal for watertight isolation of the motor interior from moisture intrusion due to damaged submerged power / control cable**

**Representative & Distributor for UGSI Liquid & Dry Polymer Feed Systems**

**“Buy the Products with the Names You Know”**

- **Get local service from the application & field service polymer system experts at GAYLE Corporation!**
- **“POLYBLEND” & “DYNABLEND” liquid & dry polymer feed systems**
- **Complete controls including customized SCADA I/O**
- **Parts sales & knowledgeable field service**

**COSTARS PARTICIPANT & Small Business Enterprise**

**COSTARS™** 

 **Pennsylvania Department of General Services**



# The Power of Commitment

↳ GHD proudly supports the Pennsylvania Water Environment Association

→ [ghd.com](http://ghd.com)

Stop by the  
ARRO booth  
at PennTec!

## ARRO

You Live Our Work

### We handle every drop

Scan QR code to download a copy of our Utility Managers Toolkit!

[ARROCONSULTING.COM](http://ARROCONSULTING.COM)

## Your Partner in Innovation

At CDM Smith, we thrive on helping you meet your challenges with solutions that maximize the benefit of advances in technology.

[cdmsmith.com](http://cdmsmith.com)  
Pittsburgh | Philadelphia | Lancaster | Harrisburg

# STRUCTURE. & INTEGRITY.

## PITTSBURGH TANK & TOWER GROUP

An ESOP Company Since 1919

“100 years and still climbing”

ASIS  
INTERNATIONAL ASSOCIATION OF STEEL CONSTRUCTORS  
FOUNDED 1922

CERTIFIED  
FABRICATOR

WWW.PTTG.COM

INSPECTIONS    REPAIR    TANKS

NEW TANKS

(270) 826-9000 ext. 2601

EXISTING TANKS

(270) 826-9000 ext. 4601



# Technical Program Details

## INDUSTRIAL WASTE PRETREATMENT – RM 107

**Moderators:** Dave Schlott, ARRO; Jenna Bishop, ARRO

**8:00am-8:30am**

### **Challenges and Lessons Learned of Developing and Implementing Intermunicipal Agreements**

**Speaker:** Vanessa Nedrick, Remington & Vernick Engineers

Running an industrial pretreatment program can be challenging. The challenges increase for POTWs running programs that span multiple jurisdictions. One of the keys to successful programs lie in the intermunicipal agreements between the POTWs and the contributing/participating municipalities. This session will discuss the challenges and lessons learned in developing and implementing intermunicipal agreements. Multiple case studies will be shared to provide insight and pitfalls to avoid in developing, revising, and implementing intermunicipal agreements.

**8:35 am-9:05 am**

### **No Beer Goes to Waste**

**Speaker:** William Rehkop, P.E., Derry Township Municipal Authority

The rise of craft breweries in the US has increased more than fivefold since 2010. With water being the key element, water consumption and the wastewater generated from the brewing process is of major importance to both the brewery and the local WWTF. By-products from the brewing process contains highly elevated levels of conventional pollutants (cBOD, TSS, and phosphorus), mainly the yeast, malt, hops, other grains and sugars. This presentation highlights the collaboration between the DTMA and Troegs Independent Brewing to properly manage the high strength wastewater (HSW) loadings from the brewing process on the Clearwater WWTF, to include operational challenges, regulating as a SIU, and HSW diversion to holding tanks for anaerobic digestion at the Clearwater WWTF.

**9:10am-9:40am**

### **Little Things Making a Big Mess?**

#### **Sesame and Poppy Seeds' Effect on Zinc Levels in Wastewater**

**Speaker:** Ashley O'Connor, Entech Engineering

Entech Engineering investigated elevated zinc levels in the wastewater of an international bakery in Roanoke, VA. Suspecting the source was sesame and poppy seeds in the waste stream, they tested the Dissolved Air Flotation (DAF) system and conducted a 3-day experiment to link seed breakdown to zinc increase.

**10:40am-11:10am**

### **Working with Industry: Setting and Maintaining Pretreatment Standards Without Losing Business**

**Speaker:** Nathan Zaugg, Carollo Engineering

Pretreatment standards are critical to maintaining effectively operating public wastewater management facilities. If these standards are too loose, significant disruption of wastewater facilities and collection systems can occur along with violations of EPA requirements and increased costs borne by rate payers. Conversely, standards that are too strict can drive businesses to relocate elsewhere. Finding the right balance in setting pretreatment standards and rates can enable communities to continue to support businesses without subsidizing their operation. This presentation will help identify key issues for industrial dischargers and how to work together with these entities to achieve this balance.

**11:15am-11:45am**

### **The Power of FOG Database Management**

**Speaker:** Tori Morgan, Entech

No matter the size or complexity of a FOG Program, a critical component is data management. Because there is a lot of data, from contact information to schedules, from letters and other forms of communication to tracking violations. You'll be spinning your wheels if you don't get a handle on it from the start. We will review a number of data management programs, and how it may be possible to successfully tie into the data system you already have in place.

## PRIVATIZATION & CYBERSECURITY – RM 206

**8:00am-8:30am**

### **Buying Smaller Systems**

**Speaker:** Mike Kyle, Lancaster Area Sewer Authority

Executive Director Mike Kyle's presentation at the Lancaster Area Sewer Authority (LASA) will focus on an examination of LASA's strategic acquisitions and regionalization efforts. Kyle will highlight LASA's proactive approach to identifying acquisition targets based on thorough assessments of infrastructure, operations, regulations, and finances. He will emphasize the importance of transparency, stakeholder engagement, and mutual benefit in negotiating deals with other public entities.

Kyle's presentation will showcase LASA's commitment to operational integration, standardized processes, and strong partnerships, positioning LASA as a regional leader in wastewater management. Overall, the presentation will offer valuable insights into LASA's strategic acquisitions and successful regionalization efforts.

**8:35 am-9:05 am**

### **Privatization**

**Speaker:** Todd Duerr, Aqua PA

Selling a system is a tough decision for Governing Boards. It and requires balancing of priorities with the pros and cons of divesting of your asset. Following on from last year's similar topic, Todd Duerr's presentation promises invaluable insights into your decision process. He'll explore strategic advantages and operational efficiencies that privatization can offer. Duerr will outline successful case studies and highlight key considerations, from regulatory compliance, customer satisfaction, impact to rates, and workforce challenges. He will highlight recent updates to the privatization and municipal ownership and operation of wastewater systems. Duerr's presentation is a must attend for anyone who wants a balanced view of when privatization should be considered as an alternative.

**9:10am-9:40am**

### **Municipal Authority of Westmoreland County – A Regional Approach**

**Speaker:** Brian Hohman, RDM

Brian Hohman of the Municipal Authority of Westmoreland County will offer a concise yet comprehensive overview of regionalizing wastewater utilities. His presentation will unveil a pragmatic approach to consolidating resources and expertise across municipalities. Hohman will explore the benefits of collaboration, from cost savings to enhanced environmental stewardship. Through case studies and practical insights, attendees will gain a clear understanding of the transformative potential of regionalization in optimizing infrastructure and service delivery. Don't miss this opportunity to streamline operations and drive sustainable growth.

# Technical Program Details

**10:40am-11:10am**

## **LASA 'hacked' Panel Discussion**

*Speaker: Mike Kyle, LASA*

Join Mike Kyle of LASA in a riveting panel discussion exploring the alarming rise of cyber threats targeting wastewater utilities. Delve into the complexities of cybersecurity in critical infrastructure, unveiling vulnerabilities and mitigation strategies. Gain insights from industry experts, unraveling the potential consequences of hacking incidents, and fostering collaborative solutions. Don't miss this crucial dialogue shedding light on safeguarding essential services against evolving digital threats.

**11:15am-11:45am**

## **Best Practices**

*Speaker: David Stumph, Next7 IT*

Embark on an enlightening journey with David Stumph of Next7 IT as he unveils the paramount importance of cybersecurity in water and wastewater utilities. Through his expert presentation, discover the latest best practices designed to fortify critical infrastructure against cyber threats. From robust network defenses to proactive threat intelligence, delve into actionable strategies tailored to safeguarding vital resources. Join us for invaluable insights, empowering utilities to navigate the digital landscape with confidence and resilience.

## **UTILITY MANAGEMENT & GOVERNMENT AFFAIRS PROGRAM – RM 109**

### **PFAS Regulations & Financing**

*Moderators: Nick Modany, JMT; Carolyn Klunder, Trinnex*

**8:00am-11:45am**

### **PFAS: Treatment and Finance Options**

#### **Presented by the US Environmental Protection Agency**

*Speakers: David Henning, PENNVEST; Magdalene Cunningham, Ruby Stanmyer, Aron Possler, all with EPA R3*

The workshop will feature presentations from EPA and PENNVEST leaders on discussing PFAS Treatment and Funding. The presentations will be followed by a Question-and-Answer session. The presentations will include a history of PFAS use and contamination, a focus on the drinking water and wastewater regulatory field, what to expect in the future, and what assistance and funding options are available to drinking water systems and POTWs.

## **PROFESSIONAL OPERATORS – RM 203**

### **Miscellaneous**

*Moderators: Milissa Hirst and Jason Marie, Carollo Engineers*

**8:00am-8:30am**

### **April Fools! – Not So Funny**

*Speaker: Michael Sedon, Cranberry Township*

On April 1, 2023, The Cranberry Township Wastewater Treatment Plant experienced a power outage that created a cascading effect which impacted overall treatment operations. This presentation will discuss the cause, actions taken, recovery and future prevention of similar incidents.

**8:35am-9:05am**

### **Activated Sludge Dynamic Filter Achieves Biological Nutrient Removal Performance in a Small Footprint**

*Speaker: Dennis J. Barnes, P.E., Xylem, Inc.*

A 10-month pilot test at a western Pennsylvania wastewater treatment plant validated a new technology for achieving biological nutrient removal (BNR) in a small footprint.

**9:10am-9:40am**

### **Screenless IFAS System Eliminates Media Loss and Reduces O&M Costs for the City of Peterborough**

*Speaker: Lauren Takitch, Entex Technologies Inc.*

A screenless WavTex™ IFAS system replaced a failing MBBR system at the 18 MGD City of Peterborough WWTP, eliminating O&M issues such as media breakage/washout while increasing nitrification. This presentation will detail the O&M benefits of the selected WavTex system and detail results from the nine-month process verification following the installation.

**10:40am-11:10am**

### **Field Instrument Surveys in Municipal Water-Wastewater Plants**

*Speaker: Ravi Jethra, WIKI*

During an instrument audit/field survey, the engineers documented instrument/gauge installations that had failed, or were at risk of failure in an effort to identify areas of concern for the facility. The presentation is essentially sharing results based on findings and experience from the field instrument surveys/audits at numerous water/wastewater (municipal) facilities across North America.

**11:15am-11:45am**

### **PA's Evolving Nutrient Credit Trading Program: An Update**

*Speaker: Nickolas Hines, Material Matters, Inc.*

Material Matters is deeply rooted in Pennsylvania's nutrient trading program, assisting with the purchase and sale of 250,000+ credits in CY2023. This presentation will discuss the multi-year trends of the program and identify future opportunities for the program – including enhanced engagement of the agricultural sector and interstate trading.

## **TUESDAY AFTERNOON**

## **COLLECTIONS SYSTEMS PROGRAM – RM 207**

### **CSO**

*Moderators: Jeff Cantwell, Flow Assessment Services; Cheryl Paulin, Insituform Technologies*

**1:00pm-1:30pm**

### **Taking on the Challenge of Deep Tunnel CSO Pumping**

*Speaker: Mike Zappone, PE, Carollo Engineers*

This presentation will provide a case history of the 220 mgd City of Portland, OR, Swan Island Combined Sewer Overflow (CSO) Pump Station, with specific emphasis placed on design challenges, and lessons learned through more than ten years of operation.





TURNING  
**LIQUID**  
CHALLENGES  
INTO  
CONTROLLED  
SOLUTIONS



**CONTACT US TODAY!**

 **610-334-1706**  
 **Renegadesol.com**  
 **info@renegadesol.com**



## SCADA Control Systems for Water and Wastewater Systems



### DESIGN

Expert SCADA design services offering innovative, cost-effective solutions for water and wastewater management, tailored to small municipalities' unique needs.



### MAINTENANCE

Our comprehensive maintenance plan ensures optimal performance of water and wastewater systems, providing regular checks, timely updates, and swift repairs to prevent downtime and extend system life. *\*Ask us about our maintenance plan!*



### TECH SUPPORT

We want to help you! We offer support services that are prompt and provide expert assistance for SCADA systems and instrumentation, ensuring reliable operation and quick resolution of technical issues. We want to help you maintain your system functionality all while keeping your systems secure from cyber threats.



## LOOKING FOR HELP WITH YOUR WASTEWATER EXAM?

Randy "Rand" Raccoon is your AI Assistant that wants to help you ace your Operator's Exam!

**Renegadesolutions.ai**



**Daman Superior, LLC**  
MUNICIPAL PRODUCTS & SERVICES

**Daman Superior** is a rep firm dedicated to helping our local Water and Wastewater treatment facilities keep our environment clean and pollution free for future generations!

In addition to our new product offerings, we are able to provide repair and rehabilitation services through our parent company Daman Industrial Services, Inc.

**Daman Industrial Services,** is one of the largest independently owned Machine Shops in the Greater Tri-State area. Contact us for all your rotating equipment repair needs!



**Daman Superior, LLC**  
MUNICIPAL PRODUCTS & SERVICES

754 Kittanning Hollow Road  
P.O. Box 486  
East Brady, PA 16028  
[www.damansuperior.com](http://www.damansuperior.com)



# Technical Program Details

**1:35pm-2:05pm**

## **CSO Management – From Stone Age to Space Age**

*Speaker: Liie Hill, PE, Jacobs Engineering Inc.*

The presentation discusses the digital transformation of combined sewer overflow (CSO) monitoring in Wilmington, Delaware. The City of Wilmington is modernizing its CSO infrastructures by adding state-of-the-art level and flow monitoring at the CSOs and interceptors to provide 24/7 monitoring capabilities, optimize staff utilization, and build intelligent integrated wastewater management system.

**2:10pm-2:40pm**

## **The Perils of Surcharging Interceptors:**

### **Unintended Consequences of In-Line Storage**

*Speaker: Jim Shelton, PE, Arcadis*

This paper identifies the causes, mechanisms of failure, evidence of likely failure of surcharges, inspection techniques to identify pipes at risk if surcharged, and rehabilitation methods once a pipe is thus compromised.

**3:40pm-4:45pm**

## **Quizzo**

*Moderated by Members of the Collection System Committee*

The Sewer Collection System Quizzo offers a unique and fun way to explore the world beneath our streets. Participants gather to test their knowledge of sewer systems through an entertaining trivia game. Questions cover various aspects, from the history and design of sewer networks to their environmental impact and maintenance practices. Quizzos may delve into topics such as the evolution of sewage disposal methods, the importance of wastewater treatment, and strategies for managing urban runoff. By engaging in friendly competition and learning about the vital role of sewer infrastructure, participants gain a deeper appreciation for the unseen systems that contribute to public health and environmental quality in our communities.

## **PRIVATIZATION & CYBERSECURITY – RM 206**

**1:00pm-4:10pm [break from 2:40pm-3:40pm]**

### **Continuation of Best Practices**

*Speaker: David Stumph, Next7 IT*

Don't miss David Stumph's presentation from Next7 IT, a continuation of the vital discussion on cybersecurity best practices for utilities. Building upon foundational insights, Stumph will delve deeper into advanced strategies and emerging trends shaping the utility sector's cybersecurity landscape. Expect comprehensive guidance on threat detection, vulnerability management, and proactive defense mechanisms. Gain actionable takeaways to bolster your utility's resilience against cyber threats in this informative session led by a seasoned expert in the field of cybersecurity.

**4:15pm-4:45pm**

## **Actionable Insights to Fortify Your Utility Cybersecurity**

*Speaker: Evan Bukowski of Houk Consulting LLC*

Join Evan Bukowski of Houk Consulting LLC for an insightful session on utility cybersecurity best practices. Delve into essential strategies safeguarding utility systems against cyber threats. Explore risk assessment methodologies, network protection measures, and incident response protocols tailored for utilities. Gain actionable insights to fortify your cybersecurity posture, ensuring resilience and reliability in the face of evolving cyber risks. Don't miss this opportunity to enhance your utility's cybersecurity defenses with expert guidance and practical solutions.

## **ENGINEERING & CONSTRUCTION PROGRAM – RM 208**

### **Treatment**

*Moderator: Rucha Shah, Arcadis*

**1:00pm-1:30pm**

### **The Role of Innovation in the Nation's**

#### **Quest for Reduced Effluent Nutrient Loads**

*Speaker: John Fraser, PE, Carollo Engineers, Inc.*

This presentation will explore various definitions of innovation as they apply to advancing nutrient removal and is centered around examples of Incremental Innovation and Sustaining Innovation – where continuous improvement of existing wastewater processes and already innovative technology can make the effectiveness and efficiency of nutrient removal even better every time.

**1:35pm-2:05pm**

### **Optimization of Biological Nutrient Removal in the Sequencing Batch Reactor Process**

*Speaker: Kevin Bunting, Parkson Corporation*

This presentation will explain how nutrients negatively impact receiving waters through eutrophication and creation of hypoxic regions. Wastewater treatment plant discharges can be a major contributor to water quality degradation in areas such as the Chesapeake Bay and the growing coastal hypoxia in the Gulf of Mexico. Properly designed and operated wastewater treatment plants conversely can provide major enhancements to water quality. The presentation will include an overview of the equipment that is typically used for each of the process steps including aeration systems and floating decanters along with various instrumentation options available for monitoring and process control.

**2:10pm-2:40pm**

### **Managing Wet Weather Challenges**

#### **at the Pleasant Hills Authority WWTP**

*Speaker: Robert Dengler, P.E., Gannett Fleming, Inc.*

Many sanitary sewer systems across the country are challenged with managing wet weather flows that substantially increase the flow rates to conveyance and treatment facilities that are not equipped to handle such flows. This presentation will describe how a novel flow management strategy enabled the Pleasant Hills Authority to double the flow of their wastewater treatment plant's peak flow capacity – without the construction of any new treatment tanks.

# Technical Program Details

**3:40pm-4:10pm**

## **Filamentous and Sludge Blankets; BioMag Saves the Day!**

*Speaker: Richard Liebhaber (Process Intensification Sales Manager), Evoqua Water Technologies/Xylem*

This paper presents the startup and operation of the world's largest municipal ballasted activated sludge system from February 2022 to September 2023. The story of a lagoon plant being transformed to an activated sludge plant and how BioMag managed a filamentous struggle.

**4:15pm-4:45pm**

## **Optimizing Operations to Increase**

### **MBR Capacity in Cold Weather Months**

*Speaker: Larry Morris, Kubota Membrane USA Corporation*

Canton Water Reclamation Facility struggled with MBR capacity issues during cold weather since beginning operation in the winter of 2018. Canton and Kubota partnered to investigate operational changes to increase capacity. These changes were put into place and Canton was able to treat all flows from 2020 forward.

## **INDUSTRIAL WASTE PRETREATMENT – RM 107**

*Moderators: Dave Schlott, ARRO; Jenna Bishop, ARRO*

**1:00pm-1:30pm**

### **Palmer Township: A FOG Program Success Story**

*Speaker: Tori Morgan, Entech*

Palmer Township struggled with FOG in its collection system and knew what they needed to do: create and implement a FOG Program. Over the past few years, Entech has helped them through all phases of the program, and continues to expand its outreach and success. The key components of a FOG Program will be reviewed, along with how its success is measured in this system.

**1:35pm-2:05pm**

### **Reducing Bakery Wastewater BOD – A Case Study Part II**

*Speaker: Kara Humes, Entech*

Large commercial bakeries can discharge a significant organic loading. This session is a follow up to the case study presented at PennTec 2023 where a sweet goods manufacturing industry and the method used to reduce FOG and total suspended solids in the wastewater effluent discharged to a POTW was discussed. This session will expand to the treatment of dissolved sugars with the use of a fluidized bed anaerobic digester to reduce BOD loadings.

**2:10pm-2:40pm**

### **Eliminating FOG and Odor in the Collection System – Small & Large Lift Stations**

*Speaker: Jim Dartez, Reliant Water Technologies*

Municipal wastewater collection systems are constantly plagued by lift stations that either collect high amounts of fats, oils, and grease (FOG) and/or intense odor due to H<sub>2</sub>S buildup in the lift station wet wells. Common solutions have ranged from adding odor masking or FOG emulsifying chemicals, continuous bio-augmentation treatment programs, fine bubble air diffusion systems, automated well washing devices, oxygen sparging systems, and air carbon scrubbing and filtration technologies. In 2016 a new technology was introduced to the collection system market that will, 100% of the time, completely emulsify, and eliminate, FOG caps in wet wells without sending the fats and

grease downline, and continuously develop enough dissolved oxygen (DO) in the well water to make H<sub>2</sub>S odors that are in the water impossible to form.

**3:40pm-4:10pm**

### **Pretreatment Program Update**

*Speaker: Ryan Shuart, US EPA*

EPA will be providing a general update to the pretreatment program.

**4:15pm-4:45pm**

### **Elements of an EPA Pretreatment Program**

*Speaker: Aron Possler, U.S. EPA*

The industrial pretreatment program can be a daunting undertaking. In this presentation, we will break down the main components of the program into bite size pieces that are more palatable. While we won't be able to cover every topic in depth, we will skim the surface of each regulatory task to ensure that you are in compliance with the basic requirements of the pretreatment program.

## **PROFESSIONAL OPERATORS PROGRAM – RM 109**

**AGS/Miscellaneous**

*Moderators: Milissa Hirst and Jason Marie, Carollo Engineers*

**1:00pm-1:30pm**

### **Pennsylvania Department of Environmental Protection**

#### **Microgrid Study: Defining Statewide Resilience Needs and Evaluating Potential Microgrid Solutions**

*Speakers: Daniel Eitzman, MPA, Department of Environmental Protection; Amanda Eyer, MS, Energy Programs Office*

Exploring and modeling alternative energy technology at water treatment facilities to bring characteristics of energy resilience, reliability, and security during disruptive events. DEP's Statewide Microgrid Study combines multiple factors through an innovative GIS suitability analysis to prioritize potential locations for site-specific technology implementation.

**1:35pm-2:05pm**

### **Mainstream Deammonification via Partial Nitrification-Denitrification-Anammox (PdNA/PANDA): From Pilot- to Full-Scale Applications**

*Speaker: Dr. Yewei Sun, Hazen and Sawyer*

The Partial Nitrification/Denitrification/Anammox (PdNA/PANDA) process innovatively removes ammonia from wastewater, offering substantial energy and chemical savings. However, its applicability, ammonia control, carbon sources, and scalability require further investigation. This presentation will showcase the experiences and lessons learned from multiple pilot-scale and full-scale studies.

**2:10pm-2:40pm**

### **Aerobic Granular Sludge (AGS) – Past, Present, and Future**

*Speaker: John Fraser, PE, Carollo Engineers, Inc.*

Aerobic Granular Sludge (AGS) is one of the most intriguing emerging technologies introduced to the wastewater industry. This discussion provides an overview of the process; discussion of enhancements to process; and illustrates several AGS configurations and layouts that provide more Robust, Easy to O&M, logically laid out, and Innovative systems.



# Technical Program Details

**3:40pm-4:10pm**

## **Data Management and Visualization**

*Speaker: Mario Benisch PE, HDR*

The arrival of new digital tools, data storage and visualization software has brought the need for utility centralized data management into focus. This presentation reviews planning and design considerations for data management and visualization and presents a working example dashboard with a unit process performance evaluation focus.

**4:15pm-4:45pm**

## **Landfill Leachate: Mountains of Ammonia**

*Speakers: Stanley A. Gorski, Jr. – Authority Manager, Western Westmoreland Municipal Authority; Mark J. Wolinsky – Operations and Compliance Manager, Western Westmoreland Municipal Authority*

Representatives from Western Westmoreland Municipal Authority will discuss the challenges presented to operators when the POTW accepts landfill leachate for treatment. While the primary emphasis will be on the high loading imparted by ammonia-nitrogen on the treatment facility, other interesting side effects will also be discussed.

## **WEDNESDAY MORNING**

## **ENGINEERING & CONSTRUCTION PROGRAM – RM 107**

### **Treatment – Capacity Investigation**

*Moderators: Chris Henry, Mott MacDonald; Bill LaPorte, Envirep*

**8:00am-8:30am**

### **Switching from Aerobic to Anaerobic Digestion, the Design of a Digestion Facility**

*Speaker: David Gryger, GHD*

Following a capacity expansion, Cranberry Township's Brush Creek Water Pollution Control Facility needed upgraded solids handling facilities to accommodate the future loadings. This presentation will cover the selected alternative of anaerobic digestion and centrifuge dewatering, from the design of the initial screening of solids treatment options through the final deliverable.

**8:35am-9:05am**

### **Gasification and Pyrolysis of Municipal Wastewater Biosolids – Design, Operation, and Maintenance Considerations**

*Speaker: Charles Winslow, GHD*

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

**9:10am-9:40am**

### **Unraveling the Differences between Densified and Flocculant Activated Sludge Properties**

*Speaker: Haley Noteboom, Hazen and Sawyer*

Sludge from densified and conventional activated sludge wastewater plants across the United States has been tested for particle size distribution, settleability characteristics, rheology, extracellular polymeric substances, and particle strength. The objectives of the study are to provide practical data regarding DAS characteristics for design, and identifying correlations for performance prediction.

**10:10am-10:40am**

### **Greenfield WRRF Delivers Complete Resource Recovery & Community Resilience**

*Speaker: Saumya Suresh, Anaergia*

Greenfield 8 MGD WRRF provides community resilience through utility reliability, resource recovery, and economic development. WRRF takes a holistic approach to waste recovery, providing water recycling to replenish local groundwater basin, leveraging biogas from anaerobic digestion to meet plant energy demands, and converting solids to Class A soil amendment.

**10:45am-11:15am**

### **Being Good Neighbors: How Monitoring and Modeling Led to Plant Wide Odor Control Improvements**

*Speaker: Kelsey Kenel, HDR*

Prince William County Authority owns & operates the H.L. Mooney Advanced Water Reclamation Facility (AWRF), located in Woodbridge, VA. In the summer of 2021, odor sampling was conducted at various sources throughout the facility in order to characterize the odors onsite coming from untreated sources and to access the treatment of the existing odor control facility. This presentation will cover the sampling, monitoring and extensive dispersion modeling results that led to the current design (2022) and future construction (2023) of a 95,000 CFM centralized odor control facility at the AWRF.



**ENVIRONMENTAL ENGINEERING  
&  
MANAGEMENT ASSOCIATES INC.**

**FOR ALL OF YOUR WATER  
AND WASTEWATER NEEDS**

P.O. BOX 232, KULPSVILLE, PA 19443  
(215) 368-3375 • FAX (215) 368-6739  
[www.eema-inc.com](http://www.eema-inc.com)

# 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.**

Contact hour tracking sheets will be available at the Registration Area. Review this form very carefully so you are aware of all requirements. 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. Use the same contact hour tracking sheet for all Conference sessions.

Completed sheets must be turned in to the PWEA registration staff during posted registration hours. You must provide a photo ID when turning in your tracking sheet. Certificates will be processed and emailed approximately one month after the Annual Conference.

In addition to the Conference contact hours, **five workshops have been approved by the PA DEP for additional credit.** Go to page 56 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.

## Helping our clients navigate the waters of construction projects and programs



OWNER'S REPRESENTATION • CONSTRUCTION MGMT • PROGRAM MGMT • PROJECT CONTROLS • CONSTRUCTABILITY • CONSTRUCTION INSPECTION

- We solely provide professional consulting services while serving as your best advocate and ally
- A diverse staff that includes water engineers and former operators with a wide range of water project experience and expertise
- Seamless integration with owner's teams, including the ability to serve as an extension of staff
- Our staff are fully trained, certified, and qualified for all aspects of work on water projects, including specialty considerations

**ANSER**  
ADVISORY  
Part of Accenture





**Providing Water & Wastewater Solutions Since 1973**

**SERVICES INCLUDE:**

Water and Wastewater Treatment Plant Design

Biological Nutrient Removal

Arsenic Removal

Iron and Manganese Removal

Distribution and Collection Systems

Pumping Stations

Storage Facilities

Act 537 Plans

Chapter 94 Reports

TMDL Reports

Infiltration / Inflow Studies

Construction Administration & Observation



**Contact Us Today For Your Next Project!**

Corporate Office: 949 Easton Road, Warrington, PA 18976 | 215-343-5700

630 Freedom Business Center, Third Floor, King of Prussia, PA 19406 | 610-572-7093

433 Lancaster Avenue, Suite 200, Malvern, PA 19355 | 610-489-5100

105 Raider Boulevard, Suite 206, Hillsborough, NJ 08844 | 908-874-7500

[info@carrollengineering.com](mailto:info@carrollengineering.com) | [www.carrollengineering.com](http://www.carrollengineering.com)



# PA DEP Certification Exams

The Pennsylvania Water Environment Association (PWEA) is offering PA DEP Operator Certification Exams on different dates and locations in 2024. Register for your exam(s) through PWEA's online registration system at [pwea.org](http://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-1pm.**

- Thursday, May 9, 2024 – Albright College, Reading – Paper Exam
- Wednesday, June 19, 2024 – Penn Stater Conf Center, State College – Paper Exam
- Tuesday, August 20, 2024 – DEP NERO, Wilkes Barre Office
- Tuesday, October 8, 2024 – DEP NERO, Wilkes Barre Office
- Wednesday, November 6, 2024 – Best Western – Lehigh Valley, Bethlehem – Paper Exam

## Not a member of PWEA?



Go to [www.pwea.org](http://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](mailto:pwea@pwea.org).



## Job Board

### Do You Know About PWEA's Job Board?

PWEA's Job Board connects candidates with employers seeking to fill open positions. Employment positions submitted to PWEA are viewable on the PWEA Website at any time. Visit [www.pwea.org](http://www.pwea.org) and click on the "News & Info" tab; then select "Job Board – Open Positions."





# EST. 1964 TRIDENT ACTUATORS

TRIDENTACTUATORS.COM

**THE GOLD STANDARD IN ELECTRO-HYDRAULIC ACTUATORS  
FOR CRITICAL GATES AND VALVE APPLICATIONS**



**CERTIFIED SUBMERGIBILITY FOR  
14 DAYS AT 50 FEET DEEP**



**(445) 456-4115  
101 Pine Street  
Holmes, PA 19043**



# Workshop Details

The following workshops are being offered during PennTech 2024 on June 16-19 at the Penn Stater Conference Center Hotel in State College, PA. You may add these courses to your PennTec registration, or you may register for your 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 – Rm 105

This course is PA DEP approved for 16.0 wastewater contact hours.  
Course ID 3884

You must attend both days to earn DEPO 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

### Water Quality Monitoring Course – Rm 106

This course is PA DEP approved for 3.0 wastewater contact hours.  
Course ID 9407

*Instructor: Ann Smith, Xylem*

The Back to Basics: Water Quality Monitoring course provides basic information for plant operators, laboratory technicians, and lab supervisors on the topics of basic lab terms, equipment and testing of simple and common parameters. This course is for new employees who need an introduction to laboratory testing, or anyone wanting to review their basic scope of knowledge. The course will discuss common definitions, basic equipment, best practices and troubleshooting, and several common lab tests. Students will demonstrate their knowledge by participating in hands on activities and group discussion.

## Monday, 12:45pm – 4:45pm

### Responsibilities of Clean Water Professionals – Rm 108

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, all with PADEP Bureau of Clean Water*

The course will include an introduction to the Wastewater Operator Code of Ethics. Upon completion of the course, students will be able to describe the importance of good communication and establish a communication system with owners, customers, and regulatory agencies. They will also be ready to accept and carry out the responsibilities and rewards of being a Clean Water Professional. Course content will include: Operator

Best Practices; Protecting/Maintaining your System; Utilizing Resources Wisely; Rules and Regulations that Impact Wastewater Operators; Security and Emergency Planning for Wastewater Systems; and Educating Owners, Customers, and the Public.

## Tuesday, 8:00am-11:30am

### An Education and Training Committee Workshop – Rm 108

#### Wastewater Treatment Biological Processes

This course is PA DEP approved for 3.0 wastewater contact hours.  
Course ID 9356

*Instructors: Manuel de los Santos & Thea Davis, both Aqua-Aerobic Systems, Inc.*

The purpose of this course is to define the treatment processes required for removal of the main influent constituents, highlighting the nutrients present in wastewater and how these are removed by emerging treatment technologies including variations of activated sludge systems, as well as granular sludge technology.

## Wednesday, 8:00am-11:30am

### A Safety Committee Workshop

#### Introduction Locator Program – Rm 105

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

Course ID 579

*Instructor: Maria White, PA One Call System*

The program objectives explain the definitions and terminology used in the PA Act 287 of 1974, as amended; a description of a correct notification; an explanation of marking underground lines with the American Public Works Association (APWA) color code standards; and an illustration of how to respond through the Karl Automated Response to Locates (KARL) system.

## Wednesday, 8:00am-11:45am

### A Biosolids Committee Workshop

#### Solids Handling & Disposal – Rm 105

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.



OUR COMMUNITY. OUR WATER.  
OUR FUTURE.



**D'Huy Engineering has joined CHA Consulting.**  
One team committed to delivering lasting water and wastewater solutions  
across Pennsylvania and beyond.

DELCORA Western Regional Treatment Plant



**D'HUY Engineering, Inc.**  
A CHA Company

**70+**

YEARS OF SERVICE

**55+**

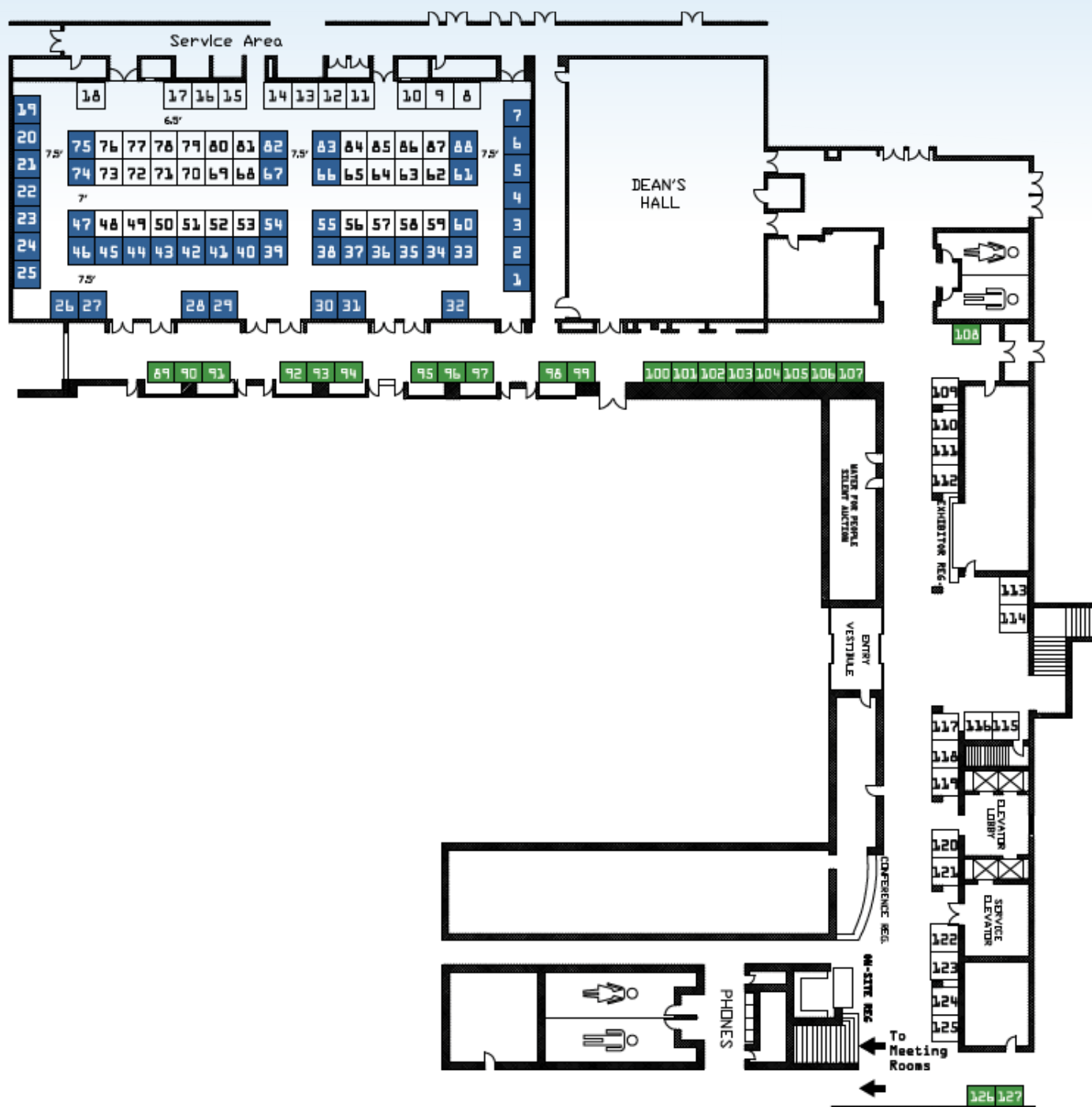
LOCATIONS ACROSS  
THE COUNTRY

**1800+**

DEDICATED PROFESSIONALS

**Learn more at [CHASOLUTIONS.COM](https://www.chasolutions.com)**

# Exhibit Hall Floor Plan



## Exhibit Hall Hours

### MONDAY

9:45AM-5:45PM

Morning Break	9:45-10:15am
Lunch	12:00-1:00pm
Afternoon Break	2:40-3:40pm
President's Reception	4:45-5:45pm

### TUESDAY

7:30AM-5:45PM

Continental Breakfast	7:30-8:30am
Morning Break	9:40-10:40am
Lunch	11:45am-1:00pm
Afternoon Break	2:40-3:40pm
Beer & Pretzels Reception	4:45-5:45pm

*Be sure to visit with the exhibitors!*



# 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 5:45pm. 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 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 and snacks** while you network with your colleagues and the vendors.

**There is no charge for this event.**



## Beer & Pretzels Reception

**Tuesday, 4:45-5:45pm**

**FREE BEER, WINE and soft 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 2nd 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.



# Exhibitor Listings

## A

### **AC Schultes, Inc.**

**Eric Fox**  
664 S Evergreen Ave.  
Woodbury, PA 08097  
856-845-5656  
[eric\\_fox1@comcast.net](mailto:eric_fox1@comcast.net)  
**Booth 108**

### **ADS Environmental**

**Cheryl Paulin**  
35 Rosecroft Run  
Hanover, PA 17331-8643  
717-634-0094  
[cpaulin@idexcorp.com](mailto:cpaulin@idexcorp.com)  
**Booth 18**

### **Advanced Rehabilitation Technology**

**Rusty Hesselschwardt**  
525 Winzeler Dr., Unit 1  
Bryan, OH 43506  
419-636-2684  
[rusty@artcoatingtech.com](mailto:rusty@artcoatingtech.com)  
**Booth 14**

### **Amwell**

**Mike Dvoracek**  
161 S. Lincolnway, Ste 310  
North Aurora, IL 60542  
630-898-6900  
[mdvoracek@amwell-inc.com](mailto:mdvoracek@amwell-inc.com)  
**Booth 5**

### **Anser Advisory**

**Bryan Martucci**  
322 N. Shore Dr., Ste 240  
Pittsburgh, PA 15212-5875  
412-770-3162  
[bryan.martucci@anseradvisory.com](mailto:bryan.martucci@anseradvisory.com)  
**Booth 17**

### **Aqua Aerobic Systems**

P.O. Box 2026  
Rockford, IL 61130  
815-654-2501  
[solutions@aqua-aerobic.com](mailto:solutions@aqua-aerobic.com)  
**Booth 39**

### **Arro Consulting**

**Chelsea Romejko**  
508 Thorngate Pl.  
Millersville, PA 17551  
717-205-4550  
[chelsea.romejko@arroconsulting.com](mailto:chelsea.romejko@arroconsulting.com)  
**Booth 60**

## B

### **BGC Water & Wastewater Services Division**

**Jennifer Haines**  
P.O. Box 55  
Skippack, PA 19474-0055  
610-222-3508  
[jbealer@hkgroup.com](mailto:jbealer@hkgroup.com)  
**Booth 76**

### **Bissnuss, Inc.**

**Lori Miller**  
2600 Boyce Plaza Rd.  
Pittsburgh, PA 15241-3949  
412-221-1200  
[lmiller@bissnussinc.com](mailto:lmiller@bissnussinc.com)  
**Booth 51**

### **Buchart Horn, Inc.**

**Emily Campagna**  
445 W. Philadelphia St.  
York, PA 17401  
717-852-1400  
[ecampagna@bucharthorn.com](mailto:ecampagna@bucharthorn.com)  
**Booth 86**

## C

### **Charter Machine Company**

**Christopher Boyd**  
720 W. Prospect Ave.  
North Wales, PA 19454-2644  
732-425-7489  
[chrisb@chartermachine.com](mailto:chrisb@chartermachine.com)  
**Booth 97**

### **Chesapeake Environmental Equipment**

**Jason North**  
199 Overlook Rd.  
Morgantown, PA 19543  
610-451-1178  
[jnorth@chesequip.com](mailto:jnorth@chesequip.com)  
**Booth 37**

### **Colliers Engineering & Design**

**Ronald Madison**  
941 Marcon Blvd, Ste 801  
Allentown, PA 18109  
610-868-4201  
[eventsteam@collierseng.com](mailto:eventsteam@collierseng.com)  
**Booth 63**

### **Coyne Chemical/Environmental Services**

**Tim McComas**  
3015 State Rd.  
Croydon, PA 19021  
215-785-3000  
[dmaugle@coynechemical.com](mailto:dmaugle@coynechemical.com)  
**Booth 85**

### **CW Sales Corporation**

**Jenna Byrnes**  
199 S. Forrest Ave.  
West Norriton, PA 19403-6015  
610-277-6444  
[jbyrnes@cwsalescorp.com](mailto:jbyrnes@cwsalescorp.com)  
**Booth 71**

## D

### **Daman Superior, LLC**

**Greg Corrins**  
754 Kittanning Hollow Rd.  
East Brady, PA 16028-3014  
724-664-6089  
[gcorrins@damansuperior.com](mailto:gcorrins@damansuperior.com)  
**Booth 74**

### **Denali Water Solutions, LLC**

**Glen Knecht**  
250 Lucius Gordon Dr., Ste 8  
West Henrietta, NY 14586-9662  
518-222-5452  
[glen.knecht@denaliwater.com](mailto:glen.knecht@denaliwater.com)  
**Booth 55**

### **DN Tanks**

**Tina Ganey**  
39 E. Main St., Fl 1  
Mechanicsburg, PA 17055-3845  
717-356-0491  
[tina.ganey@dntanks.com](mailto:tina.ganey@dntanks.com)  
**Booth 82**

### **DRV, Inc.**

**Scott Hinsch**  
6 Commerce Dr.  
Pittsburgh, PA 15239  
412-247-4816  
[dshinsch@drv-inc.com](mailto:dshinsch@drv-inc.com)  
**Booth 47**

### **Duke's Root Control, Inc.**

**Jami Tempera**  
400 Airport Rd., Ste E  
Elgin, IL 60123  
800-447-6687  
[jtempera@dukes.com](mailto:jtempera@dukes.com)  
**Booth 16**



# Exhibitor Listings

## E

### Entech Engineering, Inc.

**Lori Ferrizzi**  
201 Penn St.  
Reading, PA 19601  
610-373-6667  
[lferrizzi@entecheng.com](mailto:lferrizzi@entecheng.com)  
**Booth 36**

### Envirep, Inc./Gorman-Rupp

**Ginny Summers**  
3705 Trindle Rd., Ste 110  
Camp Hill, PA 17011-4334  
717-979-8444  
[gsummers@envirep.com](mailto:gsummers@envirep.com)  
**Booth 39, 40, 41, 42**

### Environmental Service Labs

**Julie Silvis**  
1803 Philadelphia St.  
Indiana, PA 15701  
724-463-8378  
[jsilvis@envlabs.com](mailto:jsilvis@envlabs.com)  
**Booth 68**

### Environmental Service Labs, Inc.

**Elizabeth Gregg**  
100 Timbersprings Dr.  
Indiana, PA 15701  
724-463-8378 ext.102  
[emariereggs@hotmail.com](mailto:emariereggs@hotmail.com)  
**Booth 78**

## F

### FieldForce

**Kaitlyn Brach**  
34 Northeast Dr.  
Hershey, PA 17033  
717-508-0550  
[sales@fieldforcerentals.com](mailto:sales@fieldforcerentals.com)  
**Booth 90**

### Flow Assessment Services, LLC

**Lucas Chapman**  
72 Priscilla Ln  
Auburn, NH 03032  
603-656-9799  
[lchapman@flowassessment.com](mailto:lchapman@flowassessment.com)  
**Booth 13**

### Franklin Miller, Inc.

**Tom Zangoglia**  
60 Okner Parkwy  
Livingston, NJ 7039  
973-487-9412  
[tomz@franklinmiller.com](mailto:tomz@franklinmiller.com)  
**Booth 6**

### Freya Systems

**Cindi Sutera**  
1400 Providence Rd., Ste 309  
Media, PA 19063  
484-445-2947  
[cindis@amscommunications.net](mailto:cindis@amscommunications.net)  
**Booth 81**

## G

### G.R. Sponaugle

**Debra Massott**  
4391 Chambers Hill Rd., P.O. Box 4456  
Harrisburg, PA 17111  
717-703-3234  
[debra.massott@grsponaugle.com](mailto:debra.massott@grsponaugle.com)  
**Booth 59**

**SCADA**  
CO-ENERGY PROJECTS  
**Conveyance**  
Nutrient Removal  
**GD&F**  
**ENGINEERS**  
GDFENGINEERS.COM  
**Funding**  
SYSTEM EVALUATIONS  
Rate Studies  
SCADA Funding  
Solids Management  
Rehab ACT 537 PLANNING  
Evaluations  
Collection  
**CONVEYANCE**  
SSO/CSO Co  
Co-Energy Pr  
Sewer P  
**TREATMENT**  
Nutr  
SCA  
HYDRA  
Ra  
FUNDI  
Co  
SOLIDS  
**Hydraulics-Modeling**  
SEWER REHAB  
Treatment  
System Eva  
Hydra  
COLLECTION

# Exhibitor Listings

## **Gannett Fleming, Inc.**

**Robert Dengler**  
207 Senate Ave.  
Camp Hill, PA 17011  
717-886-5392  
[rdengler@gfnet.com](mailto:rdengler@gfnet.com)  
**Booth 66**

## **Gayle Corporation**

**Wyllys Cass**  
P.O. Box 542  
Berwyn, PA 19312-0542  
215-920-5751  
[wcass@gaylecorp.com](mailto:wcass@gaylecorp.com)  
**Booth 94**

## **Geiger Pump and Equipment Company**

**Alan Greve**  
830 Tryens Rd.  
Aston, PA 19014  
610-459-1212  
[agreve@geigerinc.com](mailto:agreve@geigerinc.com)  
**Booth 30, 31**

## **George Kelso Company, LLC**

**Jennifer Renninger**  
P.O. Box 743  
East Berlin, PA 17316-0743  
717-932-9980  
[jrenninger@kelsocompany.com](mailto:jrenninger@kelsocompany.com)  
**Booth 62**

## **GHD, Inc.**

**Cindy Heisler**  
225 Grandview Ave., Ste 403  
Camp Hill, PA 17011-1729  
717-585-6410  
[cindy.heisler@ghd.com](mailto:cindy.heisler@ghd.com)  
**Booth 53**

## **Gilson Engineering Sales**

**John Warren**  
535 Rochester Rd.  
Pittsburgh, PA 15237-1747  
412-348-3007  
[jww@gilsoneng.com](mailto:jww@gilsoneng.com)  
**Booth 54**

## **GMH Associates of America, Inc.**

**Anthony Genniro**  
5 Chelton Wy, Bldg 15  
Trenton, NJ 08638  
609-396-4751  
[sray@gmhassociates.com](mailto:sray@gmhassociates.com)  
**Booth 72**

## **Golden Equipment Co., Inc.**

**Ross Stafford**  
P.O. Box 873  
Mars, PA 16046  
800-242-1494  
[golden4pa@hotmail.com](mailto:golden4pa@hotmail.com)  
**Booth 88**

## **Gwin Dobson & Foreman, Inc.**

**Angie Kordish**  
3121 Fairway Dr.  
Altoona, PA 16602-4496  
814-943-5214  
[akordsih@gdfengineers.com](mailto:akordsih@gdfengineers.com)  
**Booth 99**

## **H**

### **Hach Company**

**Lyle Gross**  
P.O. Box 389  
Loveland, CO 80539  
800-227-4224  
[lyle.gross@hach.com](mailto:lyle.gross@hach.com)  
**Booth 12**

### **Hawkins, Inc.**

**Dylan Becker**  
1161 Commercial Ave. SE  
New Philadelphia, OH 44663  
234-801-4004  
[melissa.kopka@hawkinsinc.com](mailto:melissa.kopka@hawkinsinc.com)  
**Booth 91**

### **Hayward Flow Control**

**Olga Elezovic**  
1 Hayward Industrial Dr.  
Clemmons, NC 27012  
336-592-5120  
[Oelezovic@hayward.com](mailto:Oelezovic@hayward.com)  
**Booth 64**

### **Herbert Rowland & Grubic, Inc.**

**Anna Clarke**  
369 E. Park Dr.  
Harrisburg, PA 17111-2730  
570-452-6429  
[aclark@hrg-inc.com](mailto:aclark@hrg-inc.com)  
**Booth 57**

### **Hill Services**

**Marilyn Baron**  
17464 W. Bajada Rd.  
Surprise, AZ 85387-1000  
610-704-1804  
[mbaron@hillishere.com](mailto:mbaron@hillishere.com)  
**Booth 38**

## **IDEXX Laboratories, Inc.**

**Jamie Brunelle**  
One IDEXX Dr.  
Westbrook, ME 04092  
800-321-0207  
[jamie-brunelle@idexx.com](mailto:jamie-brunelle@idexx.com)  
**Booth 46**

## **Infiltrator Water Technologies**

**Jessica Stiner**  
654 4th St.  
Oakmont, PA 15139-1528  
860-577-7000  
[JStiner@infiltratorwater.com](mailto:JStiner@infiltratorwater.com)  
**Booth 56**

## **InfoSense**

**Heather McNeil**  
8116 S. Tyon St., Ste B3-203  
Charlotte, NC 28273  
877-747-3245  
[hmcneil@infosense.com](mailto:hmcneil@infosense.com)  
**Booth 49**

## **Iron Horse Environmental**

**Kevin Pence**  
P.O. Box 282  
Fairview Village, PA 19409  
610-222-2525  
[kpence@ihe-llc.com](mailto:kpence@ihe-llc.com)  
**Booth 52**

## **J**

### **JHA Companies**

**Travis Long**  
466 S. Main St.  
Montrose, PA 18801  
844-542-4757  
[tlong@jhacompanies.com](mailto:tlong@jhacompanies.com)  
**Booth 58**

### **Joos Equipment Company**

**Eric Joos**  
P.O. 368  
Paoli, PA 19301-0368  
610-644-5875  
[ejoos@joosequipment.com](mailto:ejoos@joosequipment.com)  
**Booth 61**





# CharterMachine Company

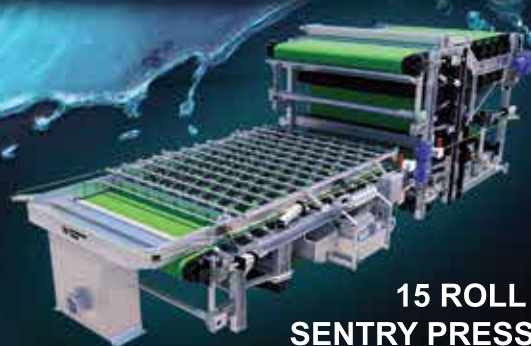
*Your Complete Source for Dewatering Equipment*

See us @PennTec 2024



## ROYAL SCREW PRESS

High-Efficiency, Low Power



## 15 ROLL SENTRY PRESS

Every Little Bit Counts



## DEWATERING TRAILERS

Self-Sufficiency on Wheels



## ELODE

Electro Osmosis Dehydrator



## TP7.4 TOWER PRESS

Smaller Capacity,  
Big Capabilities



## SKIDMOUNT SYSTEMS

The All In One Solution



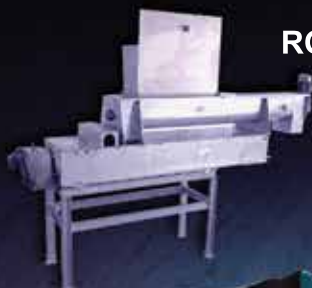
## TOWER PRESS

High Solids, Low Maintenance



## CONVEYORS

To Suit Your Needs



## ROEMIX

Lime Post  
Treatment  
System



## POLYMER SYSTEM

Roedos Customized  
Dry Polymer System



CharterMachine Company

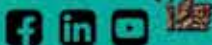
WE BUILD  
SOLUTIONS



CharterMachine Company

DO ME A  
DRY SOLID

FOLLOW US



@chartermachinecompany



www.chartermachine.com

CONTACT US

55 Wester Ave,  
Metuchen, NJ 08840

732-548-4400





# SOLVING WATER TOGETHER

**Evoqua has joined Xylem. Two water leaders are now one.**

Together, we are committed to solving the world's critical water and wastewater challenges through technology, innovation, and expertise.

Xylem's unmatched portfolio of solutions and services across the water cycle help customers in utilities, industrial, and commercial markets address their most pressing water needs and improve sustainability. Let's Solve Water.

**Contact us today to get started!**

Robert Biase  
Regional Sales Manager  
+1-724-312-3336  
robert.biase@xylem.com

**Visit [xylem.com](http://xylem.com) and [evoqua.com](http://evoqua.com) to learn more.**



# Exhibitor Listings

## K

### **Kappe Associates, Inc.**

#### **Amber Crossley**

335 Main St.  
Emmaus, PA 18049  
215-361-5700  
[amber@kappe-inc.com](mailto:amber@kappe-inc.com)

**Booth 33, 34, 35**

### **Keystone Engineering Group, Inc.**

#### **Jenney Walton**

590 Lancaster Ave., Ste 200  
Frazer, PA 19355-3606  
610-407-4100  
[jwalton@kegi.net](mailto:jwalton@kegi.net)

**Booth 63**

### **KLH Engineers, Inc.**

#### **Joseph Gianvito**

5173 Campbells Run Rd.  
Pittsburgh, PA 15205-9733  
412-494-0510  
[jgianvito@klhengineers.com](mailto:jgianvito@klhengineers.com)

**Booth 84**

## L

### **Larson Design Group**

1000 Commerce Park Dr., Ste 201  
Williamsport, PA 17701  
570-323-6603  
[qschappell@larsondesigngroup.com](mailto:qschappell@larsondesigngroup.com)

**Booth 73**

### **LB Water**

#### **Ben Reichley**

593 S. High St.  
Selinsgrove, PA 17870-0060  
570-374-2355  
[ben.reichley@lbh2o.com](mailto:ben.reichley@lbh2o.com)

**Booth 101**

### **LRM, Inc.**

#### **Mark Crawford**

P.O. Box 244  
Hilltown, PA 18927  
215-721-4840  
[mcrawford.lrm@comcast.net](mailto:mcrawford.lrm@comcast.net)

**Booth 79**

## M

### **M.E. Simpson Co., Inc.**

#### **Mackenzie App**

4320 Coventry Green Cir.  
Williamsville, NY 14221-7239  
315-857-8845  
[mackenzie@mesimpson.com](mailto:mackenzie@mesimpson.com)

**Booth 92**

### **Mercer Rubber**

#### **David Bloom**

350 Rabro Dr.  
Hauppauge, NY 11788  
631-348-0282  
[dbloom@mason-ind.com](mailto:dbloom@mason-ind.com)

**Booth 77**

### **Mid Atlantic Pump & Equip Co.**

#### **Dennis Zepp**

228 N. Rte 73  
Berlin, NJ 08009  
856-768-3880  
[dzepp@mapeco.com](mailto:dzepp@mapeco.com)

**Booth 67**

### **Mid Atlantic Storage Systems, Inc.**

#### **Brian Hyde**

2471 N. Whittmore St.  
Furlong, PA 18925  
740-895-6027  
[brian@midatlanticstorage.com](mailto:brian@midatlanticstorage.com)

**Booth 50**

### **Miller Energy, Inc.**

#### **Chip Miller**

3200 S. Clinton Ave.  
South Plainfield, NJ 07080  
908-755-6700  
[cmiller@millereenergy.com](mailto:cmiller@millereenergy.com)

**Booth 100**

### **Mott Macdonald, LLC**

#### **Kelly Graber**

111 Wood Ave. S.  
Iselin, NJ 08830  
979-379-3400  
[kelly.graber@mottmac.com](mailto:kelly.graber@mottmac.com)

**Booth 32**

### **Mr. Rehab, LLC**

#### **Jennifer Crum**

3 Long Ln  
Mechanicsburg, PA 17050  
717-697-1242  
[jcrum@mrrehab.com](mailto:jcrum@mrrehab.com)

**Booth 103**

### **Municipal Maintenance Company, Inc.**

#### **Daniel Hennessy**

1352 Taylors Ln  
Cinnaminson, NJ 08077  
856-786-9434  
[dhennessy@mmc-nj.com](mailto:dhennessy@mmc-nj.com)

**Booth 28, 29**

## N

### **Neo Water Treatment**

#### **Bill Pettit**

6148 Baker School Rd.  
Trafford, PA 15085-2326  
724-309-9720  
[b.pettit@neomaterials.com](mailto:b.pettit@neomaterials.com)

**Booth 89**

### **Nexom/EDI/Napier-Reid**

#### **Michael Cole**

5601 Paris Rd.  
Columbia, MO 65202  
1-954-540-0672  
[michael.cole@nexom.com](mailto:michael.cole@nexom.com)

**Booth 2**

### **Nichols Environmental, LLC**

#### **Edward Nichols**

13422 Walnut Tr.  
Chardon, OH 44024  
412-420-9144  
[ed.nichols@nicholsenv.com](mailto:ed.nichols@nicholsenv.com)

**Booth 22, 23, 24**

### **North East Technical Sales**

#### **John Dezzi**

171 Ruth Rd.  
Harleyville, PA 19438  
215-513-1000  
[jdezzi@netechsales.com](mailto:jdezzi@netechsales.com)

**Booth 45**

## P

### **PA One Call System, Inc.**

#### **Maria White**

925 Irwin Run Rd.  
WEst Mifflin, PA 15122-1078  
717-730-0127  
[mawhite@pa1call.org](mailto:mawhite@pa1call.org)

**Booth 70**

### **Pace Analytical Services, LLC**

#### **Erika Bechdel**

1638 Roseytown Rd., Ste 2,3, & 4  
Greensburg, PA 15601  
724-850-5600  
[erika.bechdel@pacelabs.com](mailto:erika.bechdel@pacelabs.com)

**Booth 65**

### **Pleasant Mount Welding, Inc.**

#### **Michael Burke**

45 Dundaff St.  
Carbondale, PA 18407  
570-282-6164 ext. 137  
[mburke@pmwi.net](mailto:mburke@pmwi.net)

**Booth 44**

# Exhibitor Listings

## Pro-Tech Systems Group

### Andrew Dolan

123 E. Waterloo Rd.  
Akron, OH 44319  
330-773-9828  
[andrew@pteinc.com](mailto:andrew@pteinc.com)

**Booth 93**

## Psi Process – Pumping Services, Inc.

### Christopher Evans

724 S 11th St.  
Philadelphia, PA 19147-1904  
215-668-1746  
[chris.evans@psiprocess.com](mailto:chris.evans@psiprocess.com)

**Booth 15**

## Pumpman Pittsburgh

### Leanora Heffley

3812 William Flynn Hwy , Bldg. #2  
Allison Park, PA 15101  
412-487-7140  
[lheffley@pumpmanpittsburgh.com](mailto:lheffley@pumpmanpittsburgh.com)

**Booth 9, 10**

## Purafil Filtration Group

2654 Weaver Wy  
Doraville, GA 30340  
770-662-8545  
[www.purafilo.com](http://www.purafilo.com)

**Booth 39**

## PW Tech

9004 Yellow Brick Rd., Ste D  
Rosedale, MD 21237  
410-238-7977  
[contact@pwtech.us](mailto:contact@pwtech.us)

**Booth 42**

## Pyrz Water Supply Co., Inc.

### Robert Pyrz

P.O. Box 107  
Harleysville, PA 19438  
215-256-8430  
[bob@pyrzwater.com](mailto:bob@pyrzwater.com)

**Booth 25, 26, 27**

## R

## RedZone Robotics, Inc.

### Sam Cancilla

195 Thorn Hill Rd., Ste 110  
Warrendale, PA 15086  
412.476.8980 ext. 231  
[scancilla@redzone.com](mailto:scancilla@redzone.com)

**Booth 7**

## Remington & Vernick Engineers

### Samantha Scavuzzo

555 Croton Rd., Ste 401  
King of Prussia, PA 19406  
856-795-9595  
[samantha.scavuzzo@rve.com](mailto:samantha.scavuzzo@rve.com)

**Booth 83**

## Repair Technology

### Chris Mahoney

575 Rte 73 N., Unit C-5  
West Berlin, NJ 08091  
856-336-2684  
[cmahoney@belzonareptech.com](mailto:cmahoney@belzonareptech.com)

**Booth 95**

## Riordan Materials Corporation

### Arthur Auchenbach

6198 Butler Pike, Ste 150  
Blue Bell, PA 19422-2600  
267-784-5566  
[aauchenbach@riordanmat.com](mailto:aauchenbach@riordanmat.com)

**Booth 4**

## S

## Sherwin-Williams Protective & Marine

### Toby Butler

139 Dover Dr.  
Moon Township, PA 15108-1079  
717-753-0653  
[toby.butler@sherwin.com](mailto:toby.butler@sherwin.com)

**Booth 102**

## Sherwood Logan & Associates

### Elyse Sims

370 Middletown Blvd , Ste 500  
Langhorne, PA 19047-1840  
610-207-3200  
[esims@sherwoodlogan.com](mailto:esims@sherwoodlogan.com)

**Booth 19, 20, 21**

## Spotts, Stevens and McCoy

### Jamie Lorah

1047 North Park Rd.  
Reading, PA 19610  
610-621-2000  
[eileen.kaley@ssmgroup.com](mailto:eileen.kaley@ssmgroup.com)

**Booth 69**

## T

## The Gorman-Rupp Company

600 South Airport Dr.  
Mansfield, OH 44901  
419-755-1011  
[www.grpumps.com](http://www.grpumps.com)

**Booth 40**

## The RootX Company

### Drew Raffensperger

1705 Salem Industrial Dr. NE  
Salem, OR 97301  
503-364-2999  
[drew@rootx.com](mailto:drew@rootx.com)

**Booth 11**

## Tnemec Coatings

### Wally Bates

10 N. Main St.  
Phoenixville, PA 19468  
610-551-3713  
[wbates@tnemec.com](mailto:wbates@tnemec.com)

**Booth 75**

## U

## Usabluebook

### Earlene Langston

P.O. Box 9005  
Gurnee, IL 60031  
847-377-5162  
[elangston@usabluebook.com](mailto:elangston@usabluebook.com)

**Booth 48**

## Utility Services Group

### Anne Shambaugh

1304 Slate Hill Rd.  
Camp Hill, PA 17011  
717-737-6092  
[ashambaugh@usginc.net](mailto:ashambaugh@usginc.net)

**Booth 87**

## V

## VEGA Americas

### Chantal Groom

3877 Mason Research Pkwy  
Lebanon, OH 45036  
513-272-0153  
[c.groom@vega.com](mailto:c.groom@vega.com)

**Booth 80**

## Veolia Water Technologies

4001 Weston Pkwy  
Cary, NC 27513  
919-677-8310  
[usmunicipal@veolia.com](mailto:usmunicipal@veolia.com)

**Booth 42**

## Vogelsang (Envirep)

P.O. Box 751  
Ravenna, OH 44266  
330-296-3820  
[sales@vogelsangusa.com](mailto:sales@vogelsangusa.com)

**Booth 41**



# Exhibitor Listings

## Vtscada By Trihedral

**Mike Stark**

2862 Southfield Dr.  
Beavercreek, OH 45434  
937-470-2503

[mike.stark@trihedral.com](mailto:mike.stark@trihedral.com)

**Booth 94**

## W

## Water Works Metrology, LLC

**Tim Young**

1425 Rock Quarry Rd.

Raleigh, NC 27610

919-301-8466

[tsanders@waterworksmetrology.com](mailto:tsanders@waterworksmetrology.com)

**Booth 43**

## Whice Services Ltd.

**William Ingram**

10965 SW 83rd Ave.

Ocala, FL 34481-9784

630-746-2614

[whice597@aol.com](mailto:whice597@aol.com)

**Booth 96**

## X

## Xylem Dewatering Solutions

**Beth Grannis**

145 Philo Rd. W.

Elmira, NY 14903

607-215-0668

[elizabeth.grannis@xylem.com](mailto:elizabeth.grannis@xylem.com)

**Booth 8**

## Xylem Water Solutions

**A.J. Wilson**

2330 Yellow Springs Rd.

Malvern, PA 19355

610-408-6515

[aj.wilson@xyleminc.com](mailto:aj.wilson@xyleminc.com)

**Booth 3**

## Xylem/ Evoqua Water Technologies

**Robert Baise**

210 Sixth Ave., Ste 3300

Pittsburgh, PA 15222

724-312-3336

[robert.biase@xylem.com](mailto:robert.biase@xylem.com)

**Booth 1**



**VISIT**

**[www.pwea.org](http://www.pwea.org)**  
for Association updates



## FROM WASTE TO WONDER: RETTEW'S BIOSOLID SOLUTIONS



### OPTIMIZE YOUR BIOSOLIDS SYSTEM

*RETTEW can evaluate your current process, minimize waste disposal costs, convert small systems to cycled aerobic digestion, or upgrade biogas to renewable gas and green electricity.*



### CUT COSTS

*RETTEW can help cut your costs by evaluating renewable alternatives, conducting energy audits, and helping secure alternative funding.*

Contact us today!  
[rettew@rettew.com](mailto:rettew@rettew.com)

**RETTEW**<sup>SM</sup>

1-800-738-8395  
[rettew.com](http://rettew.com) | [f](#) [in](#) [v](#)

PA - OH - WV

# PennTec Sponsors

*Thank You*  
to Our Loyal Sponsors!

## **BADGE HOLDER SPONSOR**

Gannett Fleming

## **COMMUNITY SERVICE SPONSOR**

### **GOLD**

Herbert Rowland & Grubic, Inc.  
Carollo Engineers

### **SILVER**

Industrial Furnace Company  
VEGA Americas  
Johnson Mirmiran & Thompson, Inc.

## **REGISTRATION BAG SPONSOR**

HDR Engineering, Inc.

## **CONFERENCE RAFFLE PRIZE SPONSOR**

Tnemec Coatings

## **MONDAY LUNCH SPONSOR**

Kappe Associates, Inc.  
Remington & Vernick Engineers

## **MONDAY PRESIDENTS RECEPTION SPONSOR**

Riordan Materials Corporation  
Answer Advisory  
Joos Equipment Company

## **TAILGATE DINNER & CORNHOLE TOURNAMENT SPONSOR**

### **PLATINUM**

Wade Trim  
Hawkins, Inc.

### **SILVER**

Xylem Dewatering

## **TUESDAY LUNCH BUFFET SPONSOR**

Sullivan Environmental Technologies  
Whitman Requardt & Associates, LLP

## **TUESDAY WOMEN IN WATER LUNCHEON SPONSOR**

Anser Advisory  
ADS Environmental  
Renegade Solutions, LLC  
Carollo Engineers  
HDR Engineering, Inc.  
Bissnuss, Inc.  
Entech Engineering, Inc.  
Sherwin-Williams Protective & Marine

## **TUESDAY BEER & PRETZELS RECEPTION SPONSOR**

Gwin Dobson & Foreman, Inc.  
Herbert Rowland & Grubic, Inc.  
Riordan Materials Corporation  
Neo Water Treatment  
Anser Advisory  
Gannett Fleming  
Renegade Solutions, LLC  
Remington & Vernick Engineers  
Sherwin-Williams Protective & Marine  
Geiger Pump & Equipment Co.

## **TUESDAY OPERATOR OLYMPICS SPONSOR**

KLH Engineers, Inc.  
Pumpman Pittsburgh  
Xylem Dewatering

## **WEDNESDAY GOLF HOLE SPONSOR**

Renegade Solutions, LLC  
Carollo Engineers  
Sanitaire, A Xylem Brand  
Tnemec Coatings

## **ANNUAL AWARDS CEREMONY SPONSOR**

Herbert, Rowland & Grubic, Inc.





**Brushing  
away algae  
so you don't  
have to.**

**REMOVING STUBBORN  
ALGAE IS AS EASY AS...**

# Algae Brush Cleaning

Learn how an Algae Brush Cleaning System  
can improve your wastewater treatment  
system today!

**Benefits to clarifiers  
and thickeners:**

- ✓ Labor Saving Solutions
- ✓ Maintenance & Service contracts available
- ✓ Parts are interchangeable with all brands
- ✓ Real breakaway protection
- ✓ No field welding required
- ✓ Self-install kits and factory-install available
- ✓ Algae Spray Cleaning & Combination Systems also available



**ENVIRODYNE SYSTEMS INC.**  
Custom Water & Wastewater Treatment Equipment - Since 1971



717.763.0500  
[www.envirodynesystems.com](http://www.envirodynesystems.com)

## Rescuing water from leachate

- High Recovery Rates
- Performance Guarantees
- Low Energy Requirement
- Treats for UVt Interference
- Long Membrane Life
- Simple Modular Design and Operation
- Removes Fluorinated Compounds from Leachate



**RESCUING WATER  
FROM LEACHATE**

www.rochemamericas.com

## Rescuing water from leachate

PFOS/PFAS				
Compound (ng/l)	Leachate	RO 1 Permeate	RO 2 Permeate	Rejection
Perfluorobutanesulfonic acid (PFBS)	280	<2	<1.9	>99.3%
Perfluorobutanoic acid (PFBA)	1100	5	<1.9	>99.8%
Perfluoroheptanoic acid (PFHpA)	480	<2	<1.9	>99.6%
Perfluorohexanesulfonic acid (PFHxS)	690	<2	<1.9	>99.7%
Perfluorohexanoic acid (PFHxA)	2100	7.8	<1.9	>99.9%
Perfluorooctanesulfonic acid (PFOS)	200	<2	<1.9	>99.1%
Perfluorooctanoic acid (PFOA)	820	2.5	<1.9	>99.8%
Perfluoropentanoic acid (PFPeA)	880	2.7	<1.9	>99.8%
Total	6550	18	0	>99.9%

UVt RESULTS	
Source	UVt
City Water	93%
POTW Effluent (No Leachate)	63-76%
POTW Effluent (With Leachate)	17.6%
Nanofiltration Permeate	2%
POTW Effluent w/10% Nanofiltration Permeate	46%
Leachate Reverse Osmosis Permeate	84%
POTW Effluent w/ 10% RO Permeate	78.5%
POTW Effluent w/ 25% RO Permeate	80.5%
POTW Effluent w/ 40% RO Permeate	81.1%

MERCURY REMOVAL				
October	(ng/l)	196	<0.5	99.74%
November	(ng/l)		<0.5	
December	(ng/l)		<0.5	
January	(ng/l)		<0.5	
February	(ng/l)		<0.5	



Bernie Rieder | 574-360-4535  
bernie@rochemamericas.com



# Raffle Draw Schedule

<b>MONDAY LUNCH</b> 12:30PM	\$250 Amazon gift card
<b>MONDAY AFTERNOON BREAK</b> 3:30PM	Bartesian cocktail maker machine and two spirit bottles
<b>MONDAY PRESIDENT’S RECEPTION</b> 5:30PM	Ladies Designer Handbag & Wine Fridge (dual-zone, 18-bottle capacity)
<b>TUESDAY MORNING BREAK</b> 10:15AM	Cappuccino/Espresso/Coffee machine
<b>TUESDAY LUNCH</b> 12:30AM	\$250 Amazon gift card
<b>TUESDAY AFTERNOON BREAK</b> 3:30PM	Yeti Hopper cooler
<b>TUESDAY BEER &amp; PRETZEL BREAK</b> 5:15PM	Kegerator Single-Tap Beer Dispenser



**You must be present to win!**  
**Guests & Exhibitors are not eligible for the raffle drawings.**

# Bassett Engineering Inc.

[www.bassetteng.com](http://www.bassetteng.com) (570) 368-2131



**Wastewater**  
**Nutrient Removal**  
**Industrial Leachate**



**Environmental Permitting**



**Renewable Natural Gas**  
**Water**  
**Grant Writing**



# Student Research Presentations

The Research Program showcases the ongoing research activities of students (graduate and undergraduate) in the fields of wastewater, water quality, and environmental management relevant to Pennsylvania. The PWEA Research Committee reviews student research abstract submissions from across the region and selects the top abstracts for oral presentation and to receive the Student Research Award. In addition, qualifying abstracts are invited to participate in a Poster Contest at the Conference. After judging by faculty and practicing engineers, the top poster presenters in both undergraduate and graduate categories will be selected. All posters will be available for viewing by Conference attendees. Awards will be presented during the Research Program.

Author's Name	Undergrad/Grad	Sponsoring University/College	Advisor	Title	Awards
<b>Patrick Hoover</b>	Grad	Penn State University	<b>Jay Regan</b>	Isolation of Phylogenetically and Phenotypically Diverse Polyphosphate-Accumulating Organisms (PAOs) from Natural and Engineered Environments	presentation
<b>Jennifer Rao</b>	Grad	Lehigh University	<b>Kristen Jellison</b>	Identification of Unknown Amoeba Found in Two Water Treatment Networks	presentation
<b>Jordan Brown</b>	Grad	Penn State University	<b>Rachel Brennan</b>	The Effects of Duckweed Biochemical Composition and Mechanical Properties on Densification and Pellet Quality	presentation
<b>Benjamin Castillo-Bermudez</b>	Grad	Penn State University	<b>Jay Regan</b>	Long-Term Irrigation with Treated Wastewater Influences Phosphorus Dynamics and Speciation and Related Enzyme Activities in Agroforestry Soils of a Humid Region	presentation
<b>Pieter Heyn</b>	Grad	Lehigh University	<b>John Fox and Derrick Brown</b>	Enhanced Sorption of Ionizable Organic Chemicals Using the Charge Regulation Effect	presentation
<b>Kari Lagan</b>	Grad	Penn State University	<b>Rachel Brennan</b>	Improving the Sustainability of Duckweed Systems for Nutrient Recovery from Dairy Manure: Enhancing Growth, Reducing Water Requirements, and Mitigating Ammonia Volatilization through Acidification	poster
<b>Joshua Raeter</b>	Undergrad	Bucknell University	<b>Matthew Higgins</b>	Effects of the Organic Fraction of Municipal Solid Waste on Anaerobic Co-digestion	poster



# SYNAGRO

YOUR PARTNER FOR A CLEANER, GREENER WORLD



## Servicing Municipalities and Industrial Generators Throughout Pennsylvania

### Offering a Comprehensive Suite of Biosolids and Residuals Management Options

- Beneficial Reuse Disposal Options
- Digester and Lagoon Cleaning Services
- Temporary Dewatering Options
- Permitting and Regulatory Services
- Class A Technology Options
- Rail Disposal Options

Brian Ryerson  
bryerson@synagro.com  
301.370.7181

Greg Pizer  
gpizer@synagro.com  
443.470.2266

[www.synagro.com](http://www.synagro.com)

## CENTURY ENGINEERING

A Kleinfelder Company



### Check out our new location!

330 Innovation Blvd., Suite 305  
State College, PA 16803

As a leading engineering, design, construction management, construction materials inspection and testing, and environmental professional services firm, we are committed to delivering infrastructure solutions that enhance public safety, respect the natural environment, and strengthen our communities.

[www.CenturyEng.com](http://www.CenturyEng.com) | [www.Kleinfelder.com](http://www.Kleinfelder.com)  
814.364.2262 | [info@kleinfelder.com](mailto:info@kleinfelder.com)

## Proven, Efficient Solutions to Water Quality Challenges

Save up to 20% in Energy Costs!

Up to 2,400gpm per housing

**ONE** Unit,  
**THREE** Technologies:  
Cyclonic Separation  
Upflow Filtration  
Cartridge Filtration

**World's Largest**  
Selection of NSF Listed  
Filtration Cartridges:  
Prefiltration  
1-Micron Absolute  
3.6 Log Cyst Reduction  
Activated Carbon



## HARMSCO® MUNICIPAL

Call today to learn about our **LT2 Rule** and **PFAS** Solutions!  
(561) 848-9628 • [sales@harmasco.com](mailto:sales@harmasco.com) • [www.harmasco.com](http://www.harmasco.com)



## Advance Your Career in Environmental Science

Earn Your Master's Degree in Environmental Science and Management from Duquesne University



"Every day I apply something that I learned in Duquesne's ESM program and was able to dive right into my job after graduation."

— Dannielle Pratt, MS-ESM '19

**DUQUESNE**  
UNIVERSITY  
[duq.edu/ESM](http://duq.edu/ESM)

# Committees

## *2023–2024 Board of Directors*

Linda Leopold, President  
William LaPorte, First Vice President  
James Degnan, Second Vice President  
Kara Humes, First Past President  
Lisa Webb, Second Past President  
Dean Miller, Secretary/Treasurer  
Janet Miklos, KWQM Editor  
Autumn Crawford, Professional Operators Director  
Carolyn Christy Klunder, Young Professionals Director  
Douglas Pike, First Federation Delegate  
David Brown, Second Federation Delegate

## *2024 Conference Committee*

William Laporte, Committee Chair  
James Degnan, Committee Vice Chair  
Jeff Cantwell, Program Chair  
Robert Dengler Program Vice Chair  
Marilyn Baron, Exhibitors & Sponsors Chair  
Chris Boyd, Exhibitors & Sponsors Vice Chair

## *2024 Exhibitors & Sponsors Committee*

Marilyn Boyd, Chair  
Chris Boyd, Vice Chair  
Arthur Auchenbach  
Nicole Brown  
Eric Fox  
Eric Joos  
Jennifer Kintzer  
William LaPorte  
Jason Marie  
Lori Miller  
Natalie O'Connor  
Cheryl Paulin  
James Protin  
Brian Rogers  
Julie Silvis  
Garrett Washington  
Maria White

## *Program Committee*

Jeff Cantwell, Committee Chair  
Robert Dengler, Committee Vice Chair  
Jenna Bishop  
Elizabeth Cheeseman  
Carolyn Christy Klunder  
Autumn Crawford  
Glenn Debernardi  
James Degnan  
Beth Dutton  
Holly Frederick  
Ryan Gentzler  
Chris Henry  
Michael Kyle  
William LaPorte  
Margaret Miller  
Nicholas Modany  
Christina Morgan  
Ronald Newhouse  
Christopher Patackis  
Mark Pickering  
Richard Valiga  
Nathan Walker  
Meredith Welle  
Charles Winslow  
Qian Zhang

## *Editorial Committee*

Janet Miklos, Chair  
Benjamin Deatrich  
N. Peter Fleszar  
Sean Furjanic  
Heather Heltzinger  
Chris Henry  
Jennifer Kintzer  
Michael Lewandowski  
Brian Lubenow  
Dean Miller  
Mark Pickering  
David Ritchie  
Karl Shellenberger  
Donnie Simpkins  
Justin Starr  
David Toth  
Meredith Welle

## Committee Meeting Schedule

### *Monday, June 17, 2024*

- PWEA Board of Directors
- Lab Practices Committee
- Young Professionals Committee
- Biosolids Committee

### *Tuesday, June 18, 2024*

- Training Committee

**Location:** The Gardens Restaurant  
**Time:** 7 a.m.





# PWEA Contacts for Event Management and Executive Director



Please contact Rachele Sohn via email should you need assistance with Event Management.

**Rachele Sohn**  
*rachelesohn@pwea.org*

For all other Association services, please contact Melanie Greene or Breyana Fulton.



**Melanie Greene**  
Executive Director  
*melaniegreene@pwea.org*



**Breyana Fulton**  
Deputy Executive Director  
*breyanafulton@pwea.org*



# Want to Get More Involved Professionally Outside of Your Work Environment?

## Ever considered serving on a PWEA committee?

### What serving on a committee is...

- Stepping outside our comfort zone
- Sharing your talents and expertise
- Working as part of a team
- Networking and learning from others
- Boosting your career
- Discovering new skills and new interests
- Gaining knowledge of the organization and its inner workings
- Serving members and contributing to the advancement of the Association and its goals

### What serving on a committee isn't...

- Always being in the spotlight
- Having to go it alone
- Always having to be physically present – technology affords the opportunity to be virtually present when in-person meetings just aren't possible

The PWEA invites you to contribute your expertise and a small portion of your time to PWEA committee activities. If you would like to participate in any of the committees, visit [www.pwea.org/pwea\\_committees.php](http://www.pwea.org/pwea_committees.php) and click on the link to download the form with the list of committees available.





***Pleasant Mount Welding, Inc.***

***WE'VE GOT YOU COVERED***



# **STANDARD-DUTY ALUMINUM INTERLOCKING FLAT PANEL COVERS**

Pleasant Mount Welding Inc. specializes in miscellaneous metals and structural steel fabrication. We have been providing dedicated service to the water, wastewater, and flood protection markets for over 40 years. PMWI manufactures several product lines including our Standard-Duty Aluminum Interlocking Flat Panel Covers for odor control, Aluminum Bar and Plank Grating, Aluminum Handrail, and Aluminum Ladders. PMWI is the largest manufacturer of miscellaneous metals for water and wastewater treatment facilities in the eastern U.S. To learn more about our products please visit us at [www.pmwi.net](http://www.pmwi.net).

***Headworks Areas***

***Clarifiers***

***Odor Control***

***Laundry Covers***

***Sludge Holding Tanks***

***Digesters***

***Reservoir Tanks***

***Storage Vessels***

***Protection***



# 2025 Call for Abstracts

## 96th Annual Technical Conference & Exhibition (PennTec)

Kalahari Resort & Conference Center  
250 Kalahari Blvd  
Pocono Manor, PA 18349  
June 21 - 25, 2025

Technical and case study presentations are the lifeblood of PennTec. If you have some experience in the fields of Biosolids, Collection Systems, Engineering, Construction, Government/Regulatory Affairs, Industrial Waste Treatment, Laboratory Practices, Operations, Safety, Stormwater, or Utility Management, the Pennsylvania Water Environment Association (PWEA) invites you to submit your topic for PennTec 2024.

Experience or case studies from some of the smallest municipalities often become the most popular, so please do not think that your project is too small to interest your fellow professionals.

Abstracts of 300 words or less, should describe the subject matter with enough detail to allow evaluation of the proposed topic.

Session presentations will be in 30-minute blocks including time for questions.

Abstract submittals will only be accepted electronically in WORD format. **Submission details and the abstract submittal form will be posted on the PWEA website in August.** You will be asked to identify which of the Technical Programs would best fit your topic. Submissions should be emailed to: [abstracts@pwea.org](mailto:abstracts@pwea.org).

No travel or assistance funds are available for speakers. Speakers are responsible for all of their own transportation and lodging expenses. Discounted speaker registration fees will be offered for the day of the presentation or for the full conference.

Questions should be directed to [abstracts@pwea.org](mailto:abstracts@pwea.org).



our  
**CONCERN** for the  
**ENVIRONMENT** is **MORE**  
than just **TALK**

As we continue to deliver valuable information through the pages of this program, in a printed format that is appealing, reader-friendly and not lost in the proliferation of electronic messages that are bombarding our senses, we are also well aware of the need to be respectful of our environment. That is why we are committed to publishing the program in the most environmentally-friendly process possible.

This publication is printed on Forest Stewardship Council® (FSC®) certified paper with vegetable oil-based inks.  
**Please do your part for the environment by reusing and recycling.**



# WATER WORKERS ARE ESSENTIAL



Nothing works without water and clean water  
doesn't work without you.

Thank you for working on the front lines.

## WE'VE GOT YOUR BACK



*Save the Date*

# PennTec 2025

June 21-25, 2025

Kalahari Resort & Conference Center  
250 Kalahari Blvd  
Pocono Manor, PA 18349

96TH ANNUAL TECHNICAL CONFERENCE & EXHIBITION





# Resource

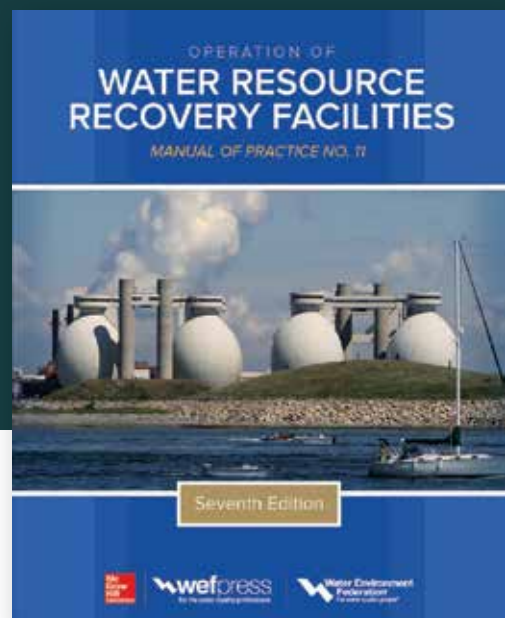
# FULL



## Reference the Best for Unparalleled Success.

*Operation of Water Resource Recovery Facilities*, MOP 11, is the one and only, definitive resource for water resource recovery professionals. This valuable how-to-guide is the key to maintaining compliance, perfecting procedures, fostering equipment efficiency and positioning your facility as a facility of the future. Advance your career while you effectively recover valuable resources and care for your community.

**Order Today:** [www.wef.org/MOP11](http://www.wef.org/MOP11)



# Advertiser Product & Service Center



The Pennsylvania Water Environment Association Conference Program is made possible by the companies listed below that have included their important messages on our pages. We thank them for their support of the PWEA and its range of publications. We encourage you to contact them when making your purchasing decisions.

COMPANY	PAGE
A&H Equipment	11
Anser Advisory	52
Aqua-Aerobic Systems	23
ARRO Consulting	44
Atlantic Coating Consultants (Epoxytec/Tnemec)	30
Bassett Engineering	71
BGC, Water & Wastewater Services	IBC
BissNuss, Inc.	13
Buchart Horn, Inc.	24
Camden Group, Inc.	24
Carollo Engineers	5
Carroll Engineering Corporation	53
CDM Smith	44
Century Engineering, A Kleinfelder Company	73
Charter Machine Company	63
Core & Main	15
Coyne Environmental Services	10, 16
D-Huy Engineering, Inc.	57
Daman Superior	48
DRV Incorporated	6
Duquesne University – Environmental Science and Management	73
Envirep/TLC	IFC
Envirodyne Systems, Inc.	69
Environmental Engineering & Management Associates, Inc.	51
Evoqua Water Technologies	64
Gannett Fleming	25
GAYLE Corporation	42, 43
GHD	44

COMPANY	PAGE
Gwin Dobson & Foreman, Inc.	61
Harmsco Filtration Products	73
Hawkins, Inc.	28
Hazen & Sawyer	31
HDR	14
Herbert Rowland & Grubic, Inc.	20
Industrial Service Solutions	29
Kappe Associates, Inc.	17
KLH Engineers, Inc.	18
Kraft Power Corporation	12
Lakeside Equipment Corporation	3
Lennon, Smith, Souleret Engineering, Inc.	37
Mersino	9
Mott MacDonald	21
Municipal Maintenance Company	38
Pittsburg Tank & Tower Group, Inc.	44
Pleasant Mount Welding, Inc.	77
PumpMan Pittsburgh	33
Reiner Pump Systems	4
Renegade Solutions	47
RETTEW	67
Riordan Materials Corp.	OBC
Rochem Americas, Inc.	70
Synagro Technologies, Inc.	73
Trident Actuators	55
Whitman Requardt and Associates, LLP	22
Xylem Dewatering Solutions	27
Xylem Water Solutions USA, Inc.	26
Zoeller Company	19



# SERVICE SPOTLIGHT

# BGC



## COSTARS™

Pennsylvania Department of General Services

### IN-HOUSE PUMP REPAIR & RESTORATION

The BGC, Inc., Water & Wastewater Services Team has complete in-house pump repair and restoration services available to our clientele. Avoid new or replacement pump costs and rest assured that your equipment will be fixed to OEM specifications and reinstalled in a timely manner.

#### In-House Pump Repair & Restoration Services Include:

- Fully disassembled, cleaned & inspected
- Elimination of scoring of shafts by machining to factory specifications
- Bearings, seals, o-rings and normal wear items replaced
- In-house Media Blasting & Painting
- In-house AWS & ASME Certified Welders
- In-house Certified Welding Inspector
- OEM rebuild quality
- 24 Hour Emergency Service
- Mobile mechanical & crane service available



#### Fully Bonded & Insured, OSHA Trained & Certified, Complete Turn Key Services

- SAME DAY EMERGENCY RESPONSE
- Available 24/7/365
- ONE CALL AND WE'RE THERE!
- 844.802.4050

Scan here to learn more.



**Now Offering "IN-HOUSE ELECTRICAL REPAIR SERVICES" – Contact Our Team For Details!**

**Blooming  
Glen**  
**Contractors**  
Inc.  
**WATER & WASTEWATER  
SERVICES DIVISION**  
EOE Including Disability & Vet

P.O. Box 55, Skippack, PA 19474  
Phone: 215.258.7530  
Fax: 215.257.7761  
Email: [info@bgcwws.com](mailto:info@bgcwws.com)  
Web: [bgcwws.com](http://bgcwws.com)



Consulting: [lucky@bgcwws.com](mailto:lucky@bgcwws.com)  
Service: [mmilewski@bgcwws.com](mailto:mmilewski@bgcwws.com)  
Estimating: [cpurdy@bgcwws.com](mailto:cpurdy@bgcwws.com)  
Engineering: [jmoses@bgcwws.com](mailto:jmoses@bgcwws.com)  
Metals  
Fabrication: [bmitch@bgcwws.com](mailto:bmitch@bgcwws.com)  
Electrical  
Repair: [jkashner@bgcwws.com](mailto:jkashner@bgcwws.com)

**STOP BY RIORDAN  
ROW (BOOTHS 1-7) TO  
DISCUSS YOUR NEXT  
PROJECT!**



## Riordan Materials, a DXP Company Water & Wastewater Treatment Equipment

# A to Z - Riordan has you covered!

From Amwel to Zimpro, Riordan has over 100 years collective experience representing the industry leaders in water and wastewater equipment and technologies.

Our mission is to provide quality, cost effective solutions for our clients, while providing the best technical support services available before, during, and after installation. We are proud to represent the premiere line of products for water treatment, wastewater treatment, odor control, solids handling, pumping, and biosolids processes. Our history of consultative sales, combined with our outstanding platform of equipment, provide you the best alternatives available.

**At Riordan we're not just sales.....**

**.....we're solutions.**

### Sales Staff

Art Auchenbach  
Augie Koloras  
Jason Donaldson  
Henry Hood  
Tom Rainier

### Offices Locations

Blue Bell, PA  
Reading, PA  
York, PA  
Baltimore, MD

Proud Supporter of:



### **Riordan Proudly Represents:**

Amwell/E&I Corporation clarification & grit systems  
AquaTurbo aerators & mixers (fixed & floating)  
CBI Walker egg shaped anaerobic digestion systems  
Charter Machine dewatering equipment  
DeLoach degasification, forced & induced draft aeration  
Dupont Memcor membrane filtration  
Elgin intake screens  
EDI (Nexom) diffused aeration systems, screens, filters  
Engineered Fluid, Inc. (EFI) packaged water stations  
Enviroquip of TX (Ovivo) process equipment  
Evoqua Water VAF, CoMag  
Evoqua Wastewater Biomag, Jettech, Davco, Zimpro  
Flottweg solids dewatering centrifuges  
Flygt (a xylem brand) submersible pumps, mixers  
Ford Hall laundry brush systems  
Franklin Miller grinders and screens  
FRC Systems dissolved air flotation units  
GNA CSO stormwater & CSO technologies  
Galene packaged water & wastewater systems  
Headworks automatic wastewater screens  
Headworks BIO IFAS & MBBR systems  
Inovair single stage turbo blowers  
Ishigaki, Inc. rotary screw presses  
Kaeser rotary lobe & screw PD blower systems  
KLA Systems jet aeration & mixing systems  
Kubota USA membrane bioreactors  
LCI Corporation biosolids dryers  
Merit Media Systems sludge drying beds  
Noreva nozzle check valves  
Primozone ozone generation systems  
Pulsed Hydraulics, Inc. big bubble mixing systems  
Pumpcon package PS controls & buildings  
PureAir Filtration odor control systems  
RedZone collection system inspection & mapping  
ROTO Pumps USA progressive cavity pumps  
S&N Airoflo floating aerators & brush rotors  
Spirac screw conveyors & headworks equipment  
TomCO2 carbon dioxide feed systems  
Trident Process multidisc dewatering press  
Walker Process clarifiers, digestion systems