Pennsylvania Water Environment Association

CONFERENCE PROGRAM

PennTec 2018 • June 3-6, 2018
Hershey Lodge & Convention Center

PennTec 2018 90th Annual Technical Conference & Exhibition

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CONFERENCE AT A GLANCE

Sunday, June 3

9:00am-1:00pm Community Service Project
10:00am-10:00pm A Day at Hersheypark®
3:00-5:00pm Registration Open

Monday, June 4

7:15am-5:00pm Registration Open
7:45-8:45am Continental Breakfast - ***Confection Lobby***
8:45-8:50am Vendor Presentations*
8:50-11:45am **Morning Technical Programs**
Biosolids - ***Magnolia CD***
Collection Systems - ***Crystal A***
Engineering - ***Wild Rose AB***
Laboratory Practices - ***Empire D***
Utility Management - ***Magnolia AB***
10:15-10:45am Morning Break - ***Confection Lobby***
11:45am-1:00pm Exhibit Hall Opens
Complimentary Lunch in Exhibit Hall
12:30-1:00pm Annual Business Meeting with Dessert & Coffee - ***Cocoa 1***
1:00-3:30pm Professional Wastewater Operations (PWO) Plant Tour - **meet at Convention Center entrance at 12:30pm**
1:00-1:05pm Vendor Presentations*
1:05-4:30pm **Afternoon Technical Programs**
Biosolids - ***Magnolia CD***
Collection Systems - ***Crystal A***
Engineering - ***Wild Rose AB***
Laboratory Practices - ***Empire D***
Safety - ***Empire C***
Utility Management - ***Magnolia AB***
2:30-3:30pm Afternoon Break in Exhibit Hall
4:30-5:30pm President's Reception in Exhibit Hall
6:00-8:00pm Annual PWEA Awards Ceremony and Reception - ***Aztec/Nigerian Ballroom***

*** See Vendor Presentation schedule on page 24**

NEED CONTACT HOURS OR PDH CREDIT?

Pick up your tracking sheet in the PWEA Registration Area

Tuesday, June 5

7:00am-5:30pm Registration Open
7:30-8:30am Continental Breakfast in Exhibit Hall
8:00-11:00am Students & Young Professionals (SYP) Plant Tour - **meet at Convention Center entrance at 8:00am**
8:00-11:30am **Morning Technical Programs**
Collection Systems - ***Crystal A***
Engineering - ***Wild Rose AB***
Finance - ***Empire D***
Industrial Pretreatment - ***Magnolia CD***
Stormwater - ***Magnolia AB***
9:30-10:30am Morning Break in Exhibit Hall
11:30am-1:00pm Complimentary Lunch in Exhibit Hall
Student Research Poster Presentations
12:45-2:45pm SYP Career Fair - ***Cocoa 1***
1:00-4:30pm **Afternoon Technical Programs**
Collection Systems - ***Crystal A***
Construction - ***Wild Rose AB***
Industrial Pretreatment - ***Magnolia CD***
Stormwater - ***Magnolia AB***
Student Research Presentations - ***Empire D***
2:30-3:30pm Afternoon Break in Exhibit Hall
4:30-5:30pm Beer & Pretzels Reception in Exhibit Hall
Operator Olympics in Exhibit Hall
6:00-9:00pm YP Social Event - Wine Tasting/Food Pairing - ***Cocoa 1***

Wednesday, June 6

7:00am-12:00pm Registration Open
7:30-8:30am Continental Breakfast - ***Confection Lobby***
8:30am Golf Tournament - ***Manada Golf Club***
8:00-11:00am **Morning Technical Programs**
Professional Wastewater Operations - ***Wild Rose AB***
Water Sustainability & Reuse - ***Magnolia CD***
9:30-10:00am Morning Break - ***Confection Lobby***
11:30am Conference Concludes

Workshops

These workshops are approved for additional PA DEP contact hours. You must have a ticket to attend. Limited tickets are available on-site.

Monday, June 4

8:45am-2:30pm Disinfection and Chlorination
Empire A

8:45am-4:30pm Introduction to Pretreatment
Empire B

Tuesday, June 5

8:00-11:45am Laboratory Ethics
Empire C

8:00am-4:30pm Introduction to Wastewater
Empire B

Wednesday, June 6

8:00am-12:00pm Responsibilities of Clean Water Professionals
Magnolia AB

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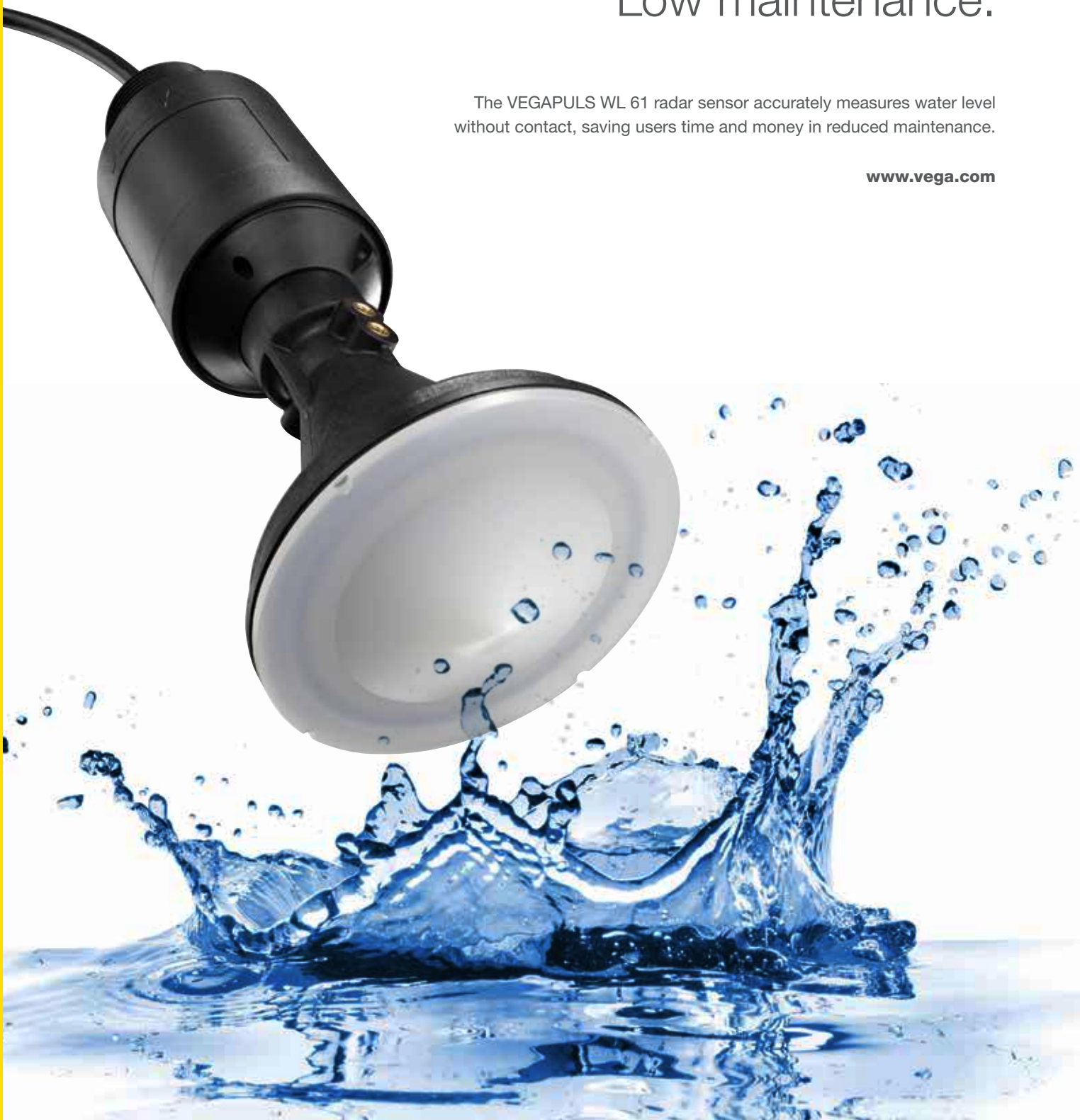

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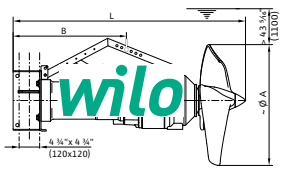

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A MESSAGE FROM...

Michael Sedon
PWEA President

Kevin Shannon
Chair, PennTec 2018
Conference Committee

Jeff Cantwell
Chair, PennTec 2018
Program Subcommittee

the PWEA Leadership

On behalf of the PWEA Board of Directors and the 2018 Conference Committee, we welcome you to PWEA's 90th Annual Technical Conference and Exhibition (PennTec 2018).

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 14.5 DEP contact hours, or up to 17.5 Professional Development 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 networking opportunities for you to meet and interact with your colleagues. The **President's Reception** will be in the Exhibit Hall on Monday afternoon. The **Annual PWEA Awards Ceremony and Reception** will be held on Monday evening. The **Beer & Pretzels Reception** and the **"Raise Your Glass" Wine Tasting/Food Pairing Event** are on Tuesday.

We believe this year's PennTec Conference will provide everything you need under one roof—education, vendor contacts, and networking. Welcome!

Table of Contents

Certification 48
Committees 45
Community Service Project 44
Conference at a Glance 3
Exhibit Hall Floor Plan 15
Exhibit Hall Highlights 13
Exhibitor Listings 17
Networking Events 21
PennTec 2019 Call for Abstracts 47
PennTec 2019 Dates & Location 47
Research Presentations 42
Sponsors 9
Students & Young Professionals 10
Technical Program Details 27
Vendor Presentations 24
Workshop Details 23

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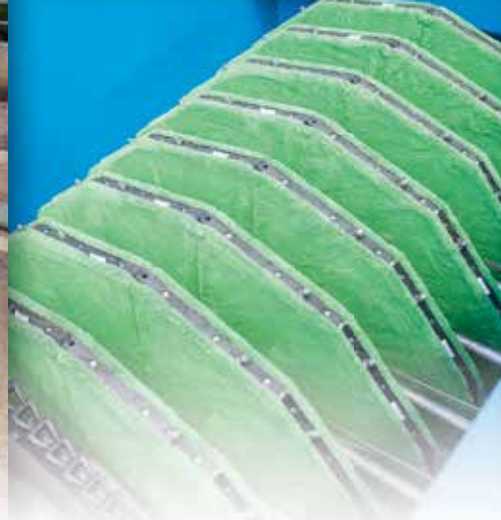
Advertisers Index

AECOM 49
Aqua-Aerobic Systems Inc 8
ARRO Consulting Inc 40
BissNuss Inc 54
Buchart Horn Inc 54
Carylon Corporation / Mobile Dredging & Video Pipe Inc 53
CDM Smith 51
Core & Main 43
Coyne Environmental Services 12
CUES 26
DAS Group Inc 40
DN Tanks 46
Envirep/TLC 2
Environmental Engineering & Management Associates Inc 54
Gannett Fleming 49
GHD 12
Greeley and Hansen 53
Gwin Dobson & Foreman Inc 46
Hanover Engineering Associates Inc 54
Hardy Pro-Air 29
Hazen & Sawyer 14
HDR 52
High Tide Technologies 55
Iron Horse Environmental 43
Kappe Associates Inc 16
KCI Industries 54
Kershner Environmental Technologies LLC 6
KLH Engineers Inc 53
Lakeside Equipment Corporation 5
Mid Atlantic Storage Systems Inc 54
Mott MacDonald 11
No Flow In Flow 32
Pennoni Associates Inc 51
Pittsburg Tank & Tower Co Inc 46
RAM Industrial Services 34
Reiner Pump Systems 25
Riordan Materials Corp 56
RK&K 46
T&M Associates 51
VEGA Americas Inc 4
WC Weil Company 22
Whitman Requardt and Associates LLP 18
WM F Hill & Associates Inc 54
Xylem Water Solutions USA Inc 52
Zoeller Engineered Products 36



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STUDENTS & YOUNG PROFESSIONALS (SYP)

The Pennsylvania Water Environment Association would like to welcome Students & Young Professionals (SYPs) to PennTec 2018. The SYP Committee is happy to see you at PennTec.

New this year - the SYP Committee organized PWEA's first Community Service Project, held on Sunday morning. We partnered with the Derry Township Municipal Authority and the Manada Conservancy.

The SYP Committee also organized a Plant Tour at the Hershey Chocolate Company Industrial Pretreatment Facility. The tour will be on Tuesday morning. If you didn't already sign up, check at the PWEA Registration Desk to see if tickets are available.

Again this year - the SYP Committee will host a Career Fair. See below for details.

The YP Committee planned the Tuesday Night Event and we hope you will stick around for the Wine Tasting and Food Pairing Event. Hors d'oeuvres and beverages will be available. Check at the PWEA Registration Desk for ticket availability.

SYPs have participated in a number of social and service events over the years and the SYP Committee will continue to build that program. The Committee has a number of events planned for 2018 and we look forward to your participation.

Micah Blate
SYP Committee Co-Chair

Chris Henry
SYP Committee Co-Chair

SYP Career Fair

Tuesday, 12:45-2:45pm - Cocoa 1

The SYP Committee will be hosting a Career Fair to provide an opportunity for young professionals to meet prospective employers in the water/wastewater sector. The event will kick off with a short presentation from a senior member of PWEA who will discuss the status of the industry and employment opportunities, followed by short presentations from employers in the various aspects of the industry, and open time for prospective employees to talk with employers in attendance.

Participating companies/organizations (engineering firms, consultants, wastewater reclamation facilities, Municipalities, Authorities, etc.) will have the opportunity to meet with students/job seekers and interested YPs.

PWEA
PENNSYLVANIA WATER ENVIRONMENT ASSOCIATION

Not a member of PWEA? Go to www.pwea.org to join online or to download the membership application form. Members receive the PWEA member rate for the PennTec Conference and for other 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 the monthly PWEA e-Newsletter, keeping you up-to-date on the latest water quality news and PWEA events, which also includes a link to current employment opportunities.

Questions?

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EXHIBIT HALL HIGHLIGHTS

Exhibit Hall Hours

The Exhibit Hall will be open during the following times:

Monday	**11:45am-5:30pm**
Lunch	11:45am-1:00pm
Afternoon Break	2:30pm-3:30pm
President's Reception	4:30pm-3:30pm
Tuesday	**7:30am-5:30pm**
Continental Breakfast	7:30am-8:30am
Morning Break	9:30am-10:30am
Lunch	11:30am-1:00pm
Afternoon Break	2:30pm-3:30pm
Beer & Pretzels Reception	4:30pm-5:30pm

Be sure to visit with the exhibitors!

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 may put as many of their tickets as they'd like in each marked container. You must be present to win. Exhibitor representatives are not eligible for these drawings.

Raffle Prize Drawing Schedule:

Monday

Hersheypark Package	Lunch
Gift Card Packages (3)	Afternoon Break
Wine Package	President's Reception

Tuesday

Cooler Package	Breakfast
Echo Package	Morning Break
TV Package	Lunch
Thermostat Package	Afternoon Break
Beer Package	Beer & Pretzels Reception

President's Reception Monday, 4:30-5:30pm

Don't miss the President's Reception! Enjoy complimentary beer & snacks while you network with your colleagues and the vendors.

Operator Olympics

Tuesday, 4:30-5:30pm

This is a fun activity based on some real Olympic events, but with a wastewater twist. The Olympics events are always popular and always fun!

This is a competitive event and prizes will be awarded.

Biosolids 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 **Booth 83** or **Booth 110** 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 during the Exhibit Hall receptions on Monday and on Tuesday.

Biosolids Bingo Participants

(as of May 4th; final list available at Registration Desk)

A.C. Schultes Inc
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ARRO Consulting Inc
AutomaTech
Bowen, Calhoun & Associates
Charter Machine Co
Coyne Chemical Environmental Services
CUES
DRV Inc
DynaTech Generators
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Insight Pipe Contracting
J.T. Seeley & Co., Inc.
Joos Equipment Company
KELSO
Keystone Pump & Power
Lee Supply Company
Mid Atlantic Pump & Equipment
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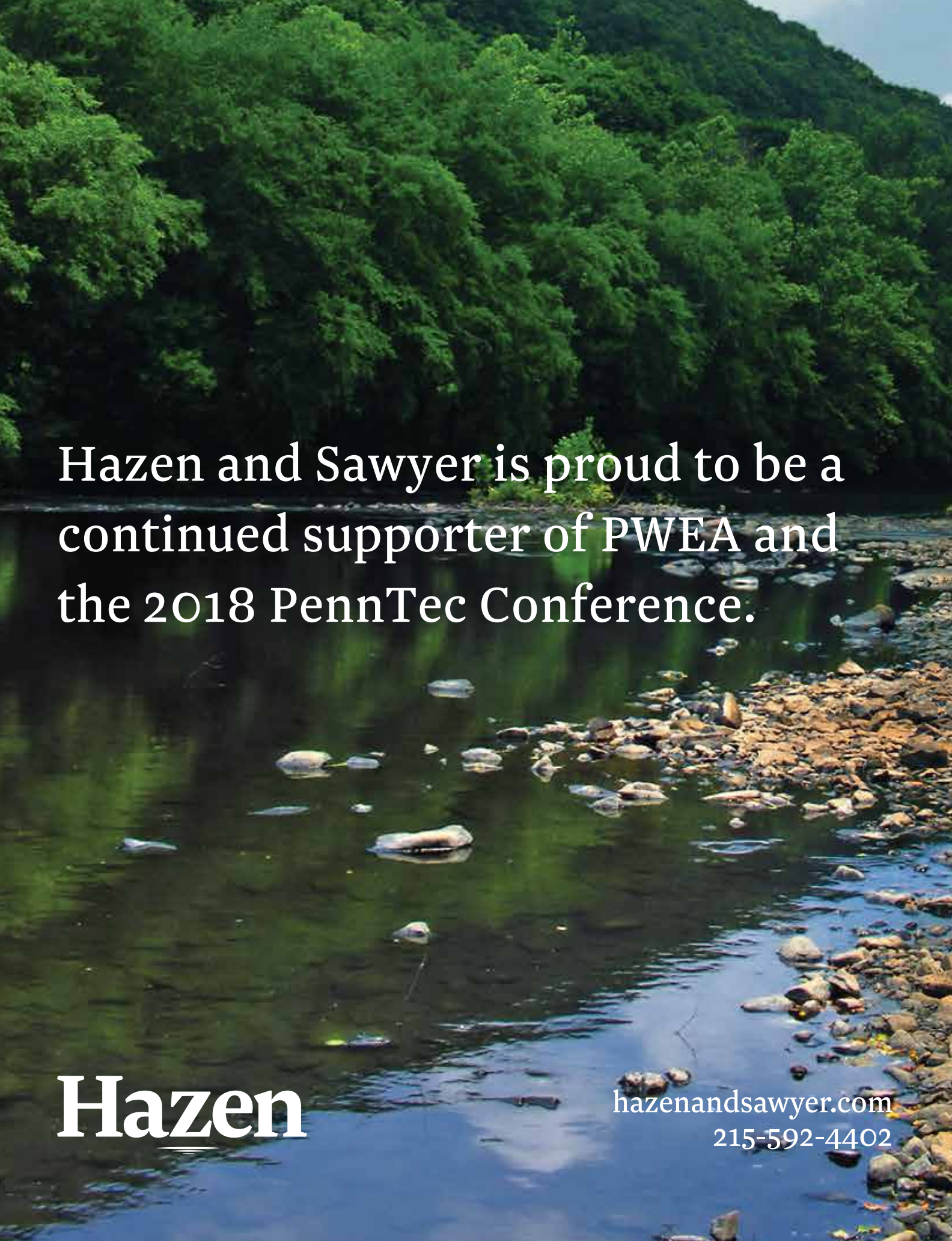
Municipal Maintenance Co Inc
Neo Chemicals and Oxides
quasar energy group
Radwell International
Reiner Pump Systems, Inc.
Riordan Materials Corporation
RK&K
Sherwin Williams Protective & Marine Coatings
Spotts, Stevens and McCoy
T&M Associates
Trumbull Mfg
USABlueBook
USP Technologies
V-Systems
WC Weil PM LLC
Whitman Requardt & Associate
Xylem Water Solutions

Beer & Pretzels Reception Tuesday, 4:30-5:30pm

We will be serving complimentary beer & soft pretzels! Come to the Exhibit Hall to relax and visit with the vendors.

Free WiFi in the Exhibit Hall!

Login instructions are available in the Registration Area.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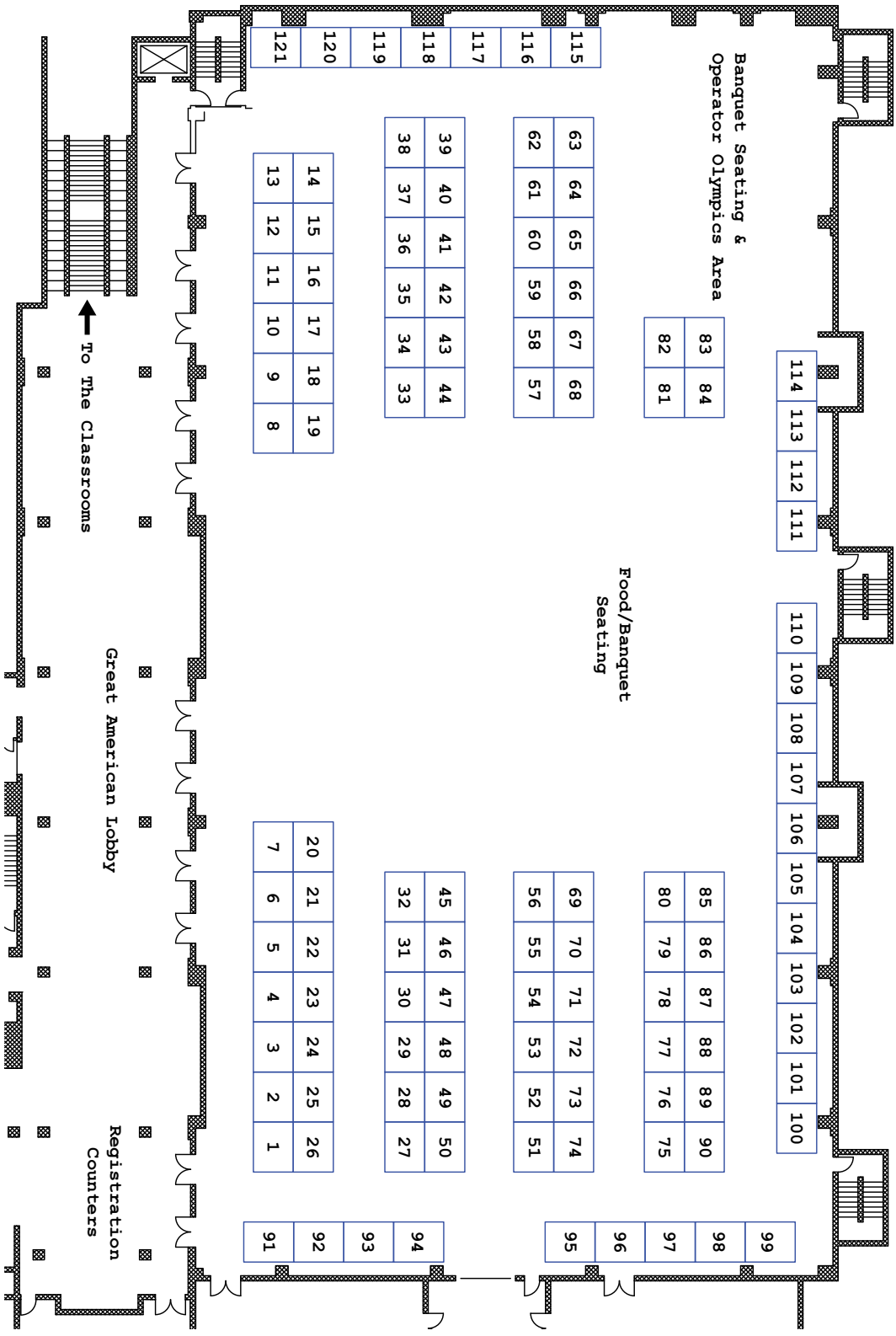

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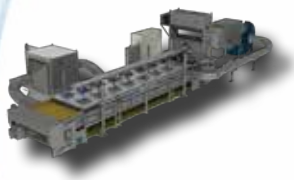

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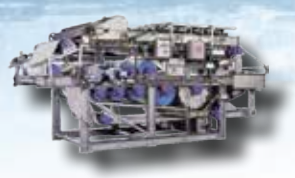

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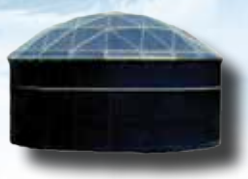

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NETWORKING EVENTS

PWEA Annual Awards Ceremony & Reception

Monday, 6:00-8:00pm
Aztec/Nigerian Ballroom

The Annual Awards Ceremony honoring your colleagues who have won prestigious state and national awards will take place during this reception, which is open to all Conference attendees.

"Raise Your Glass" Wine Tasting & Food Pairing

Tuesday, 6:00-9:00pm
Cocoa 1

Come and join PWEA's Young Professionals for a wine tasting and food pairing event! Participants will taste various Pennsylvania wines, and learn appropriate food-wine pairings from a PA winery owner. Participants will gain first-hand insight into how the wines are made and how winery wastewater is managed, and will also learn about the history of each wine variety. If you are looking for a fun evening with fellow SYPs and experienced professionals alike, this program will not disappoint!

Cost is $50 per person, which includes snacks and beverages. A limited number of tickets may be available on-site.

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WORKSHOP DETAILS

You must have a ticket to attend.
Seating is limited to 40 per workshop. If you did not register in advance, check at the PWEA Registration Desk for seat availability.

Monday, 8:45am-2:30pm - Empire A

A PWO Workshop

Moderator: Carrie Keeley, Philadelphia Water Department

Disinfection and Chlorination

This course is PA DEP approved for **4.0 wastewater contact hours**. Course ID 7682.

Instructor: Dennis Duryea, PE, Kiski Valley Water Pollution Control Authority

This course will provide students with knowledge to prepare for the certification exam or to enhance operator's skills and knowledge if they are already employed at a wastewater treatment facility. Course content will include: disinfection and chlorination principles; chlorination process control; chlorine safety and handling; chlorination equipment and maintenance; de-chlorination; and ultraviolet radiation.

Monday, 8:45am-4:30pm - Empire B

An Industrial Pretreatment Committee Workshop

Moderator: Judy Musselman, GHD

Introduction to Pretreatment

This course is PA DEP approved for **6.0 wastewater contact hours**. Course ID 7613.

Instructors: Christine Volkay-Hilditch, City of Lancaster, and Judy Musselman, BCES QEP, GHD

POTWs with EPA-approved industrial program must perform a variety of tasks in the implementation and enforcement of the program. This workshop will review those steps and discuss the regulatory background of each. Course content will include: identification and classification of industrial users; preparing an enforceable IU permit; development of local discharge limits; implementing a self-monitoring program; conducting an IU inspection; and establishing a creditable enforcement program. Pretreatment coordinators, wastewater operators, consultants and others involved in the implementation and enforcement of industrial pretreatment programs would benefit from this course.

Tuesday, 8:00-11:45am - Empire C

A Laboratory Practices Committee Workshop

Moderator: Michael Henao, North Huntingdon Township

Laboratory Ethics

This course is PA DEP approved for **3.0 drinking water & wastewater contact hours**. Course ID 7364.

Instructors: Larissa Hoover, Cranberry Township, and Michael Henao, North Huntingdon Township

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

Tuesday, 8:00am-4:30pm - Empire B

A Training Committee Workshop

Moderator: David Brown, ALCOSAN

Introduction to Wastewater

This course is PA DEP approved for **5.0 wastewater contact hours**. Course ID 6563.

Instructor: Curtis Miller, PE BCEE REM, KCI Technologies

The primary purpose of this course is to provide participants with an introduction to basic concepts of wastewater collection and conveyance systems, the wastewater treatment process, the role of the treatment plant operator and the regulations that govern wastewater treatment plant operations. Course content will include discussions of: the role of the treatment plant operator; characteristics of wastewater; basic wastewater treatment processes; and state and federal regulations. This course is intended to help participant gain an understanding of the duties and responsibilities of a treatment plant operator; wastewater characteristics; effects of wastewater discharges; wastewater treatment and their processes; and state and federal regulations.

Wednesday, 8:00am-12:00pm - Magnolia AB

A PWO Committee Workshop

Moderator: Robert DiGilarmo, PA DEP

Responsibilities of Clean Water Professionals

This course is PA DEP approved for **3.5 wastewater contact hours**. Course ID 7122.

Instructors: Robert DiGilarmo, Thomas Brown, Anita Stabile, Robert Bauer and Thomas Magge, all with the PA DEP; and Walter Higgins, US EPA

This course will include an introduction to the Wastewater Operator Code of Ethics. Discussions will include protecting and maintaining the wastewater system; laws, rules and regulations that impact wastewater operators; and security and emergency planning for wastewater. Upon conclusion of this course, students will be able to describe the importance of good communication and establish a communication system with system owners, customers, and regulatory agencies and they will be ready to accept and carry out the responsibilities and rewards of being a Clean Water Professional.

VENDOR PRESENTATIONS

Vendors will make brief presentations at the start of each half day technical program. Presentations will be no more than five minutes in length. One vendor presentation is scheduled per program.

Monday, 8:45-8:50am	
Biosolids - *Magnolia CD*	Charter Machine Company – *Belt Presses Are Not Dead*
Collection Systems - *Crystal A*	Zoeller Engineered Products – *Submersible Wastewater Pumps*
Engineering - *Wild Rose AB*	Gwin, Dobson & Foreman – *GD&F and Wastewater Treatment*
Utility Management - *Magnolia AB*	AutomaTech – *Introduction to AutomaTech*

Monday, 1:00-1:05pm	
Biosolids - *Magnolia CD*	DN Tanks – *Inspection, Rehabilitation, and Retrofit of Concrete Tanks*
Collection Ssytems - *Crystal A*	Xylem Water Solutions - *Intelligent Pumping-Flygt Concertor*
Engineering - *Wild Rose AB*	Radwell International – *Industrial Automation*
Utility Management - *Magnolia, AB*	ADS Environmental - *Monitoring to Protect Assets*

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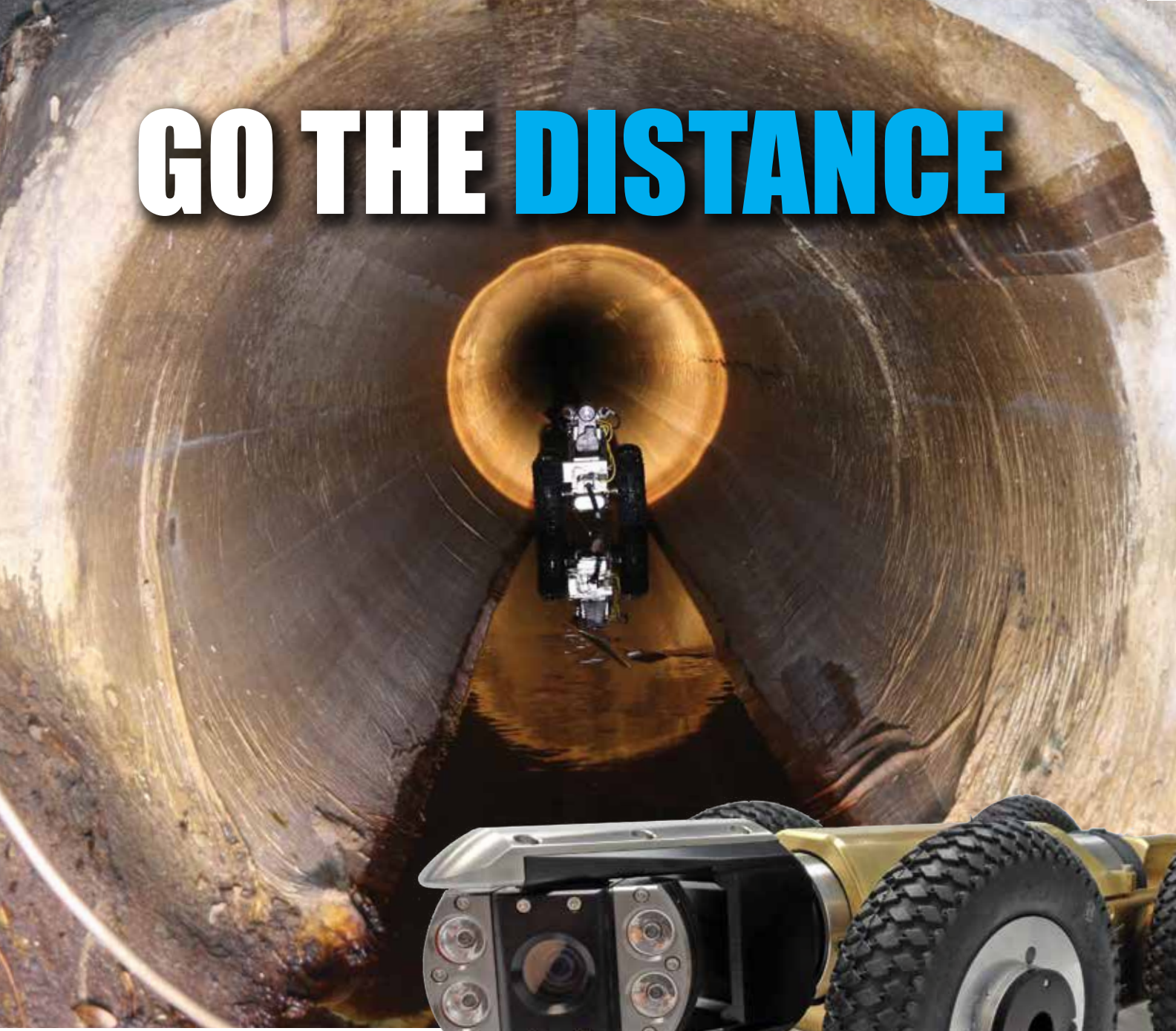

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TECHNICAL PROGRAM DETAILS

MONDAY MORNING

BIOSOLIDS PROGRAM - MAGNOLIA CD

Moderator: Charles Winslow, GHD, and Richard Valiga, Tully Environmental

8:45-8:50am - Belt Presses Are Not Dead

Presented by: Charter Machine Company

8:50-9:20am - Biosolids Compost Use in Green Infrastructure

Speaker: Ryan J. Cerrato, Denali Water Solutions (WeCare Organics Products)

An overview of how biosolids-based composts are being used in Green Infrastructure, with a focus on projects in Pennsylvania, will be discussed.

9:20-9:50am - After the Fire: Biosolids Planning for a Sustainable Future

Speaker: Micah Blate, Hazen and Sawyer

A fire at the Cape May County Municipal Utilities Authority's (CMCMUA) existing sludge composting facility required the CMCMUA to contract with third-parties for biosolids processing activities. This presentation focuses on the development of a Biosolids Master Plan focused on long-term sustainability, safe and reliable operation, public acceptable, economic feasibility, and recoverable/green energy.

9:50-10:20am - Biosolids Program Paradigm Shift at Camden County Municipal Utilities Authority (CCMUA)

Speaker: Trudy Johnston, Material Matters

CCMUA installed thermal dryers to fulfill its National Biosolids Partnership goal: end landfill disposal. Due to unforeseen product characteristics, the dried product was initially deemed incompatible with most beneficial use applications. This presentation will discuss CCMUA's journey in overcoming obstacles to develop an innovative, successful beneficial use program.

10:45-11:15am - TSA Dewatering Evaluation: When Compatibility Matters

Speaker: John Harris, GHD

Peters Township Sanitary Authority (PTSA) evaluated several dewatering systems to confirm the compatibility of the dewatering technology with unique project constraints. This evaluation included a desktop study, site tours and pilot testing at their WPCP. The results of full-scale screw press pilot testing at four treatment facilities in Pennsylvania will be presented.

11:15-11:45am - Factors Impacting Dewatering

Speaker: Mario Benisch, HDR Engineering, Inc.

This presentation will provide tangible information that operators, utility managers, and engineers can apply to improve dewatering performance, future dewatering facility designs, and to further the understanding about the interrelations between liquid treatment, solids treatment, and the impact that transfers of external loads have on the receiving plant.

COLLECTION SYSTEMS PROGRAM: - CRYSTAL A

PUMP STATIONS

Moderators: Christopher Patackis, Brown and Caldwell, and Matthew Cichy, Herbert, Rowland & Grubic

8:45-8:50am - Submersible Wastewater Pumps

Presented by: Zoeller Engineered Products

8:50-9:20am - Using Hydraulic Modeling and In-Line Storage to Optimize Upgrades to a Critical Combined Sewer Pump Station

Speaker: Rich Atoulikian, HDR Engineering, Inc.

An innovative approach to expanding a 75-year-old pump station to improve its reliability and reduce the number of overflows from its upstream collection system will be presented. Considering the pump station and collection system together identified a cost-effective solution to achieve regulatory compliance and to provide an easy-to-maintain facility.

9:20-9:50am - Submersible Pumping Station Configuration Selection

Speaker: Michelle L. Gavan, EIT, Gannett Fleming, Inc.

Pumping stations are critical components of wastewater collection systems, responsible for conveying flow to treatment facilities. Selecting an appropriate configuration is essential for maximizing resiliency and design life. This presentation will discuss the selection process for submersible pumping station configurations, and provide case studies.

9:50-10:20am - It Doesn't ALWAYS Flow Downhill - Why Some Hydraulics Issues Deserve a Physical Model

Speaker: Dave Werth, PhD, PE, Clemson Engineering Hydraulics, Inc.

Surprises lurk within our channels, tanks, and wetwells which can impact pumping systems. A physical model often reveals these troubles and aids in finding low-cost solutions. Model costs have fallen, so many situations that deserve a physical model can now afford it. This presentation offers both theory and project examples.

10:45-11:15am - The Neighbor on Norchester

Speaker: Jessica M. W. Hou, PE, BCEE, Gannett Fleming, Inc.

This presentation will review best practices and lessons learned from a complex, multi-disciplinary pump station replacement project for Hampton Roads Sanitation District (HRSD), southeastern Virginia's regional wastewater authority, covering Hydraulic Institute standards; self-cleaning trench-type wet well design; odor control; construction practices; temporary bypass; public relations; and architectural enhancement.

11:15-11:45am - Protect Your Pumps! Upgrading a Pump Station in a Combined Sewer System

Speakers: Jeffrey Bowra, PE, and Paul Deardorff, PE, both with Capital Region Water

The Front Street Sewage Pumping Station suffers from inadequate screening which contributes to maintenance nightmares. Facility upgrades will maximize pumping capacity during wet-weather events, improve screening, and replace outdated electrical equipment. Highlights include the use of 3-D modeling software, pre-selection of screening equipment, and addition of a green roof.

TECHNICAL PROGRAM DETAILS

ENGINEERING PROGRAM - WILD ROSE AB

Moderator: Justin Mendinsky, Herbert, Rowland & Grubic, Inc.

8:45-8:50am - GD&F and Wastewater Treatment

Presented by: Gwin, Dobson & Foreman, Inc.

8:50-9:20am - Epoxy Lining Systems for Manhole Rehabs - Why They Work So Well!

Speaker: Tim Bauman, Sherwin Williams Protective & Marine Coating Group

There are many systems on the market used to rehab manholes. Some contend with excessive moisture that can affect adhesion of the coating and some work with the moisture to gain adhesion and provide a chemically resistant lining system with outstanding adhesion characteristics. This presentation discusses how these systems can work together with the ever-present moisture that is in all manholes.

9:20-9:50am - Filtration - To Upgrade or Rehabilitate: A Case Study of Two Utilities

Speaker: Brian Sibiga, PE, Wendel

Specific criteria evaluated by water utilities to decide between rehabilitating or upgrading aging filters typically include the condition and capability of the underdrain system, required future operating conditions, and construction sequencing constraints. Case studies for two utilities will be presented.

9:50-10:20am - Concrete Water Storage Tanks - Rehabilitation and Replacement

Speaker: Clayton Johnson, PE, Wendel

Design and construction considerations associated with rehabilitating existing, and constructing new, prestressed concrete water storage tanks for two aging utilities' storage tanks will be presented. One utility elected tank replacement, while construction presented uninterrupted operational challenges. Another utility required rehabilitation including repairs of exterior wall, dome, prestress wire; new coatings; and replacement of tank appurtenances.

10:45-11:15am - Upgrade Your Plant's Electrical System to Bring It Into the 21st Century

Speaker: Keith Knuppel, H.R. Gray

Electrical systems are the backbone of the treatment process in water facilities. While construction projects help maintain the physical structure, electrical upgrades are often afterthoughts until a system fails. This presentation discusses best practices developed to implement, plan and manage electrical upgrades.

11:15-11:45am - Ventilation for Wastewater Facilities and NFPA 820

Speaker: William L. Bohner, Jr., PE, ARRO Consulting, Inc.

This presentation is intended to provide a basic understanding of how the National Fire Protection Association (NFPA) Standard 820 impacts ventilation and electrical code requirements for wastewater collection, conveyance, and treatment facilities, with an emphasis on the ventilation needs of specific processes and what needs to be accomplished in order to establish the appropriate type of classification for electrical components and controls.

LABORATORY PRACTICES PROGRAM - EMPIRE D

Moderator: Michael Henao, North Huntingdon Township Municipal Authority

8:50-9:20am - Choosing a Polymer for Effective & Efficient Liquid-Solids Separation

Speaker: Don Rhule, Dyno Tech/Rhule LLC

This session will cover types of polymers, where and how to utilize them for your dewatering process. Safety issues, finding the most cost-effective product will be discussed. Flocculation and coagulation and proper testing protocols will be addressed. Participants will gain an understanding of choosing the best solution to liquid-solids separation.

9:20-9:50am - The Development and Application of CBOD5/BOD5 Ratio to Reduce Monitoring Requirements and Costs

Speaker: Charlie Liu, PE, BCM Engineers

Obtained DBRC's approval on proposed sampling and testing protocols, and the use of the established CBOD5/BOC5 ratio (based on test results) to convert future plant influent BOD5 results to CBOD5. DRBC approved that for future CBOD5 removal efficiency computation, no future analysis of plant influent CBOD5 was required.

9:50-10:20am - Fecal Coliform Testing for Wastewater Effluent: Lactose Based Methods Compared to Colilert-18, an Enzyme Based Method

Speaker: Gil Dichter, IDEXX Laboratories

Fecal coliform methods are based on either 15-tube MPN or m-FC (lactose base) requiring 24-72-hour confirmation. Colilert-18 (enzyme base) is an 18-hour test and confirmation not required. Methods will be examined and compared. The recently approved MUR and QC will be reviewed. Is there a difference between CFU and MPN?

PWO Plant Tour

Derry Township Municipal Authority Clearwater Road Wastewater Treatment Facility Hershey, PA

Monday, 1:00-3:30pm

The Clearwater Road Wastewater Treatment Facility, with a capacity of 5.02 million gallons per day, was placed into operation in 1977 and was expanded and upgraded in a project completed in 2005. This facility, which discharges high quality effluent to the Swatara Creek, typically produces a final effluent of 10 mg/l BOD, 10 mg/l TSS, 3 mg/l total nitrogen and total phosphorous to a level below 1 mg/l.

A limited number of tickets may be available on-site. The cost is $20 per person. Bus will begin boarding at 12:30pm and will depart at 12:45pm.

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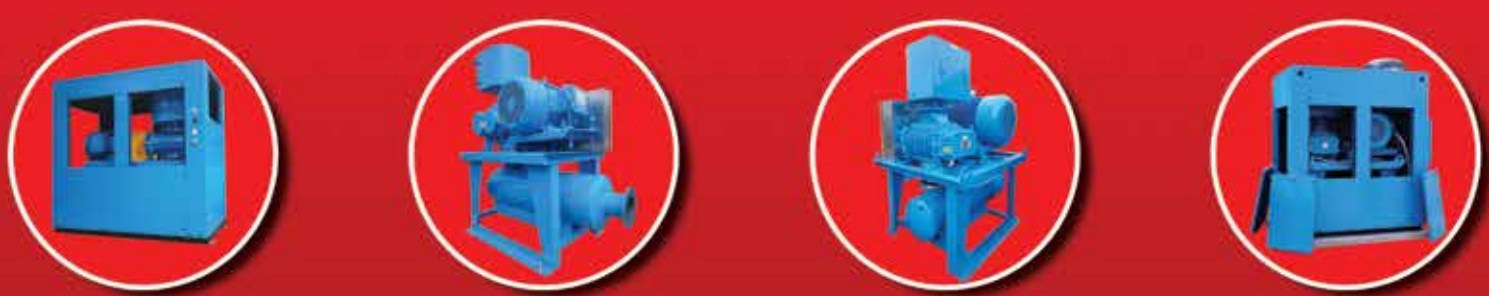

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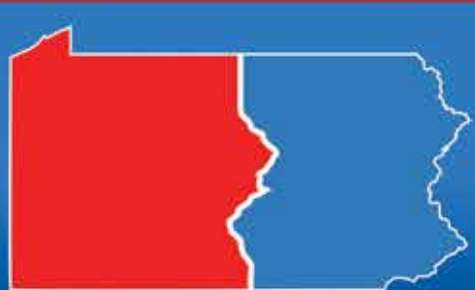

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TECHNICAL PROGRAM DETAILS

10:45-11:15am - Tips for PT Success

Speaker: Larissa Hoover, Cranberry Township

This class discusses some lab basics and tips for running Proficiency Test (PT) samples. Learn some new information and ask questions to succeed in passing all of your PT tests.

11:15-11:45am - High Purity Water for Critical Laboratory Applications

Speakers: Tim Melrose and Kim Knepper, both with Thermo Fisher Scientific

This presentation will explain the standards of water purification, review impurities in water, review technologies to remove those impurities, and discuss the technologies utilized to produce different qualities of water.

UTILITY MANAGEMENT PROGRAM - MAGNOLIA AB

Moderator: Mark Pickering, GHD

8:45-8:50am - Introduction to AutomaTech

Presented by: AutomaTech

8:50-9:20am - How to Become (and Be Recognized as) a Water Utility of the Future Today - Case Study of the Lancaster Area Sewer Authority

Speaker: Michael Kyle, Lancaster Area Sewer Authority

This WEF/EPA program is a model on becoming more efficient and sustainable. This presentation will show you how to develop a program and will include a case study of the Lancaster Area Sewer Authority, recognized in 2017 for community partnerships.

9:20-9:50am - One Small Utility's Path to Climate Change Readiness

Speaker: Christine Ballard, T&M Associates

A utility responded to devastating storms by utilizing EPA's Climate Readiness Evaluation and Awareness Tool (CREAT) to understand risk levels for climate related threats. CREAT results directed a utility-wide climate resiliency program that includes a storm resilient "Mobile Enclosure" pump station that is highly adaptable to water, wastewater and stormwater infrastructure.

9:50-10:20am - Optimizing Capital Programs and Managing Costs through Value Engineering

Speaker: James J. Rhoades, Jr., PE, AVS, Alfred Benesch & Company

Value engineering (VE) is a systematic, structured approach for improving projects and processes. Presentation includes case studies showing where VE was applied to manage and minimize capital program costs. Methodology includes defining value of project elements, establishing maximum cost, and managing cost to satisfy changing value throughout the design process.

10:45-11:15am - Conducting a Successful and Implementable Energy Audit for the Harrisburg Capital Region Water

Speakers: Tanya Dierolf, Capital Region Water, and Rich Atoulikian, PMP, BCEE, PE, HDR Engineering, Inc.

The process Capital Region Water used to move forward with an energy management approach started with identifying energy conservation measures for both the wastewater and water systems. The focus on the energy audit approach that was used, and how it engaged plant operations and maintenance staff in the identification of, and potential viability of the identified energy conservation measures, will be discussed.

11:15-11:45am - Utility Manager Panel Discussion

Panelists: Jason Coyle, Northern Lancaster County Authority; Wayne Schutz, Derry Township Municipal Authority; and Dave Stewart, Capital Region Water Authority

A panel of Wastewater Utility Managers talk about how they are handling current challenges and what they predict as future trends, focusing on community engagement, energy and resource recovery, and re-use.

MONDAY AFTERNOON

BIOSOLIDS PROGRAM - MAGNOLIA CD

Moderator: Charles Winslow, GHD, and Richard Valiga, Tully Environmental

1:00-1:05pm - Inspection, Rehabilitation, and Retrofit of Concrete Tanks

Presented by: DN Tanks

1:05-1:35pm - Innovative P3 Approach to Food Waste Processing at a Municipal WWTP

Speaker: William Rehkop, PE, Derry Township Municipal Authority

Utilizing municipal WWTPs for food waste co-digestion isn't a new concept, but the public/private partnership (P3) approach to systematically manage the waste from the generator to the recycling outlet provides a sustainable solution. Derry Township Municipal Authority (DTMA) and Divert, Inc. have created a model to successfully acclimate food waste for co-digestion utilizing existing infrastructure.

1:35-2:05pm - Biologically Enhanced Primary Treatment: A Summary of Experience from Pilot, Demonstration, and Full-Scale Systems

Speaker: Jared Alder, Evoqua Water Technologies

This presentation will highlight the results from bench, pilot, and full-scale Biologically Enhanced Primary Treatment (BEPT) that has been conducted throughout the US. The session will cover a greenfield full-scale implementation of BEPT and how combining BEPT with design build saved the utility $75M over conventional technologies.

2:05-2:35pm - Reduce Sludge Viscosity, Improve Dewaterability, and Enhance Biogas Production by Implementing a PONDUS Thermochemical Hydrolysis Process (TCH)

Speaker: Sanjeev Verma, Centrisys

PONDUS, a TCH process, is simple to engineer and easy to retrofit in existing WWTP. This process at atmospheric pressures and temperatures of 150 degrees Fahrenheit can have an ROI in months. PONDUS helps operators augment Anaerobic Digester capacity, improve biogas output, reduce sludge viscosity and improve dewaterability.

3:30-4:00pm - What Stinks? Alternatives to Wet Scrubbers for Municipal Wastewater Treatment Plant Odor Control

Speaker: Michael J. Rykaczewski, Kleinfelder, Inc.

The Upper Moreland-Hatboro Joint Sewer Authority utilizes wet scrubber towers for odor control. The Authority sought to evaluate more efficient and cost-effective technologies. The Authority evaluated several technologies and ultimately selected using their existing sludge incinerator and activated sludge aeration basins to replace the scrubbers.

4:00-4:30pm - Biosolids Odor Control Using PRI-TECH®

Speaker: Steve DiMaria, USP Technologies

A full-scale field demonstration was initiated in February 2014 by the Suffolk County Department of Public Works (SCDPW) to quantify the impacts of Peroxide Regenerated Iron-Technology (PRI-TECH®) as a more economic approach in maintaining odor control in the solids handling phase of the Bergen Point Wastewater Treatment Plant.

TECHNICAL PROGRAM DETAILS

COLLECTION SYSTEMS PROGRAM: - CRYSTAL A

PUMP STATIONS AND LOW-PRESSURE SEWERS

Moderators: Bruce Hulshizer, Herbert, Rowland & Grubic, and Marilyn Baron, Epoxytec

1:00-1:05pm - Intelligent Pumping-Flygt Concertor

Presented by: Xylem Water Solutions

1:05-1:35pm - Are You Selecting the Right Pump? Considerations for Water and Wastewater Pump Stations

Speaker: Chris LaManna, PE, Wendel

Pump selection has long term effects on the performance and O&M costs for a pumping station. Selection procedures and techniques include defining the operating conditions envelope; assessing the Preferred Operating Range (POR); evaluating energy usage for alternative operating scenarios; and estimating variable speed performance and efficiencies using affinity laws.

1:35-2:05pm - Hydraulics of Pressure Sewer Systems

Speaker: Keith J McHale, PE, Environment One Corporation

Pressure sewers have become a viable solution to providing wastewater collection in many communities. Mains are typically installed just below the frost line and can follow the topography. This presentation will provide a summary of theoretical and practical efforts untaken to examine the hydraulics of pressure sewers.

2:05-2:35pm - The Advantages of Pressure Sewer Systems

Speaker: Daniel J. Goncz, PE, Gannett Fleming, Inc.

The recent developments of equipment and technology used in pressure sewer systems has made pressure sewer systems a viable first choice option for sewage collection and conveyance.

3:30-4:00pm - How'd You Sewer That...Pressure Sewer System Applications

Speakers: Matthew D. Cichy, PE, and Staci Hartz, PE, both with Herbert, Rowland & Grubic, Inc.

As the need for sewers in challenging areas continues to increase, alternative sewer systems provide a cost-effective means of providing sewer service. This presentation will provide examples of where pressure sewer systems can be used in challenging areas and other areas you might not expect.

4:00-4:30pm - Hidden Challenges of Wastewater Pump Station Rehabilitation: Two Examples of Pump Station Rehabilitation: Pitfalls and Efforts to Make the Rehabilitation Project a Success

Speaker: Kemal Niksic, PE, Mott MacDonald

Many regional sewer systems were built over thirty years ago and include pumping facilities which are approaching the end of their useful life. This presentation will highlight two pump station rehabilitation projects, describing challenges to meet current codes and mistakes that could have been avoided through proper planning and execution.

ENGINEERING PROGRAM - WILD ROSE AB

Moderator: Justin Mendinsky, Herbert, Rowland & Grubic, Inc.

1:00-1:05pm - Industrial Automation

Presented by: Radwell International

1:05-1:35pm - "Tricking Out" a New Final Clarifier Mechanism to Improve Performance

Speaker: Charlie Hurst, DELCORA

This presentation showcases a comparison of full-scale, side-by-side performance data between existing and new 130-foot final clarifiers. The new clarifier includes an energy dissipating inlet, mid-radius baffle, Stamford baffles and an alternate weir arrangement. Both the new and existing clarifiers were stress-tested to determine the ultimate performance.

1:35-2:05pm - Upgrading from Conventional to Denitrification Filter Capability: Pilot Testing to Confirm Design Criteria and Performance

Speaker: Elizabeth Helsel, RETTEW Associates, Inc.

The University Area Joint Authority is upgrading their current nutrient removal process to enhanced nutrient removal. As part of this upgrade, UAJA chose to upgrade their existing tertiary filters to denitrification filters. A pilot study was completed to ensure the proposed retrofit would meet the design criteria. The challenges and eventual outcomes of initial design and the pilot study will be discussed.

2:05-2:35pm - Strategies and Lessons Learned from Bench Testing and Full Scale Trials for Achieving Compliance with New Effluent Total Copper Limits at Two Trickling Filter Wastewater Treatment Plants

Speakers: Benjamin Burns and Edward Spayd, PE, both with Herbert, Rowland & Grubic, Inc.

A multi-faceted approach was used to identify and evaluate alternative strategies to achieve new total copper effluent limits at two Pennsylvania trickling filter wastewater treatment plants. Alternative strategies included regulatory options, drinking water plant improvements, and wastewater treatment plant improvements.

3:30-4:00pm - On-Site Hypochlorite Generation: A Safe and Reliable Disinfection Alternative

Speaker: Gary Schaeffer, UGSI Solutions, Inc.

Producing sodium hypochlorite on-site and on-demand offers improved safety, fewer deliveries, and reduced operational costs over purchasing commercial hypochlorite. The unique, vertical/multi cell configuration improves reliability and operator convenience over older technology systems. Standard units are available for greater than 2400 lbs/day of equivalent chlorine production.

4:00-4:30pm - Tyrone Wastewater Treatment Plant UV Disinfection Improvements

Speaker: Kevin J. Nester, PE, GHD

The Borough of Tyrone Wastewater Treatment Plant's existing UV disinfection system was inefficient and obsolete. By replacing their existing UV disinfection system with a system employing non-contact UV disinfection technology they gained a more efficient, reliable and cost-effective operation.

No Flow In Flow

H.D.P.E. Man-hole Inserts

SPECIFICATIONS:

• The dish is made of ultra-high density polyethylene copolymer material that meets ASTM specifications designation D 1248, Class A, Category 5, Type 111 with a minimum impact brittleness temperature of -180°F. The thickness shall be uniform to .187 or greater. This material is composed of MARLEX HXM 50100….extra high molecular weight Hexene copolymer.

• The lift strap is made of 1 inch wide woven polypropylene web and is attached to the bowl of the dish by a wide head stainless steel 3/16" rivet and a stainless steel ¾" backup SS washer. All cut edges are seared to insure against raveling.

• Ventilation is provided by a 1/8" vent hole and/or a valve, vent hole located on the side wall of the bowl, valve threaded into the side-bottom of the insert. The hole or valve allows maximum release of 5 gallons of water per 24 hours and is not effected by debris that might collect in the bottom of the dish. Sewer gas is vented at one P.S.I. or less.

• The gasket is made of closed cell neoprene and is attached by a pressure sensitive adhesive to the weight bearing surface of the dish.

Stainless Steel Man-hole Inserts

SPECIFICATIONS:

• **INSERT**- The manhole insert is manufactured of 16 gauge 304 or 316 Stainless Steel. Tile insert shall have a bowl size large enough to receive the design of the underside of the manhole lid. The bowl size shall also be designed to allow easy removal from the manhole frame. The insert shall have a load test greater than 3000 pounds.

• **GASKET**- The gasket is made of closed cell neoprene and is attached by a pressure sensitive adhesive to the weight bearing surface of the dish.

• **HANDLE**- The handle, cable terminal, and cable eye end are manufactured from stainless steel. The handle is manufactured from 3/16" plastic coated stainless steel cable and is attached with a #66 stainless steel rivet and a 1" diameter SS washer. The cable is braided in a manner which resists cutting with bolt cutters.

• **TETHER**- Tile tether is manufactured from 3/16" braided stainless steel and is attached to the insert using #66 stainless steel rivet. The cable terminal end and eye are manufactured from stainless steel.

• **RELIEF VALVE**- The gas relief valve is designed to, release at a pressure of .5 to 1.5 PSI and release less than 5 gallons of water in 24 hours. The valve is threaded and screwed into a hole drilled in the bottom of the insert. The valve is made from material that is inert against Sulfuric Acid, Hydrogen Sulfide and other substances found in the sanitary sewer systems.

H.D.P.E. or A.B.S. Valve Box Inserts

SPECIFICATIONS:

• The valve box insert is made of ultra-high density polyethylene copolymer material that meets ASTM specifications designation D 1248, Class A, Category 5, Type 111 with a minimum impact brittleness temperature of -180°F. The thickness shall be uniform to .187 or greater. This material is composed of MARLEX HXM 50100….extra high molecular weight Hexene copolymer or can also be made with acrylonitrile butadiene styrene or A.B.S. plastic.

• The lift strap is made of 1 inch wide woven polypropylene web and is attached to the bowl of the dish by a wide head stainless steel 3/16" rivet and a stainless steel ¾" backup SS washer. All cut edges are seared to insure against raveling.

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TECHNICAL PROGRAM DETAILS

LABORATORY PRACTICES PROGRAM - EMPIRE D

Moderator: Larissa Hoover, Cranberry Township

1:05-4:30pm - Turning Data into Knowledge: Optimized Data Collection & Management

Speakers: Pam Moss, Hach, and Larissa Hoover, Cranberry Township

A wastewater system has information coming from all directions – SCADA, laboratory, operations, maintenance and more. How does an operations team effectively collect and use all of the data at hand, and put it in a usable format so decisions can be made for daily operations, monthly reports, budgets, optimization, planning?

SAFETY PROGRAM - EMPIRE C

Moderator: Joseph Rost, Butler Area Sewer Authority

1:05-4:30pm - Active Shooter Preparation and Response

Speaker: Robert Winters, US Department of Homeland Security (DHS), Protective Security Advisor of Western Pennsylvania

The purpose of this course is to convey DHS best practices regarding Active Shooter Preparation and Response. The types of personalities that perpetrate these attacks will be discussed, with an eye toward avoiding them. The importance of individual and organizational planning, response options, recovery, and other resources available for reference and use will be presented.

UTILITY MANAGEMENT PROGRAM - MAGNOLIA AB

Moderators: Jack Rae, Gannett Fleming, and Raymond Ferrara, Kleinfelder East

1:00-1:05pm - Monitoring to Protect Assets

Presented by: ADS Environmental

1:05-1:35pm - Integrated Capital and Energy Planning (ICE)

Speakers: Brian Sibiga, PE, and Andrew Casolini Dal Bo, PE, LEED AP, both with Wendel

Case study of Integrated Capital and Energy (ICE) plans for WWTP's enhancing energy efficiency, asset renewal and treatment efficiency will be presented. Life cycle cost optimization and triple bottom line approach coupled with conventional capital planning to develop economically sustainable plans; and asset renewal integrated with energy efficiency brings economic, social and financial benefits while positioning for grants and incentives will be discussed.

1:35-2:05pm - Developing Planning-Level Costs: An Approach to Decision Making

Speaker: Samantha Burke, Philadelphia Water Department

But how much is it going to cost? This presentation will provide details for developing a defined approach for how to create cost curves as a tool for planning for both comparative and conceptual costs. A case study of PWD's planning-level cost estimation strategies using cost curves will be presented.

2:05-2:35pm - Community Integrated Planning and Adaptive Management Implementation in Local Utility Compliance Programs

Speaker: Paul Calamita, AquaLaw, PLC

Unprecedented opportunities and public expectations for integrated environmental planning and adaptive management implementation for urban environmental compliance programs with case studies will be discussed.

3:30-4:00pm - DEP Regulatory Overview and Clean Water Program Updates

Speaker: Lee McDonnell, PA DEP

This presentation will cover current water program regulatory issues including reporting and permit requirements, Chesapeake Bay Phase 3 WIP and nutrient trading, and other issues.

4:00-4:30pm - DEP Regulatory Round Table

This round table provides the opportunity for participants to ask DEP staff questions about regulatory issues.

TUESDAY MORNING

COLLECTION SYSTEMS PROGRAM: - CRYSTAL A

SEWER REHABILITATION

Moderators: Edward Woyden, Gannett Fleming, and Roger Lehman, Weston Solutions

8:00-8:30am - Little Cuyahoga Interceptor Slip Line Replacement

Speaker: Jim Shelton, Arcadis

Case study of the expedited design and construction of an 87" and 75" diameter brick interceptor using hard pipe segmental slip lining will be discussed. The interceptor paralleled the Little Cuyahoga River and included several tributary crossings. This presentation will focus on construction phase aspects of the project.

SYP Plant Tour

Hershey Chocolate Company Industrial Pretreatment Facility (IPF) Hershey, PA

Tuesday, 8:00-11:00am

The Hershey Company has been operating in central PA for over 100 years. The company's founder Milton Hershey was not only dedicated to making affordable chocolate but to the surrounding community, building civic centers, community facilities, and cultural institutions. The Town's original WWTP was built in the early 1900's to service both the residents and industry in the area. After residential growth, the municipality built a dedicated treatment plant in 1977.

To this day, The Hershey Company has maintained and upgraded components of the 100+ year old facility that operates as 0.8 MGD pretreatment plant with discharge to the Derry Township Municipal Authority. In 2016, the company began the design of a new 1 MGD treatment facility with planned commissioning in September of 2018. This tour will include a site visit to both the old and new wastewater treatment plant facilities.

A limited number of tickets may be available on-site. The cost is $20 per person. Bus will begin boarding at 8:00am and will depart at 8:10am.

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TECHNICAL PROGRAM DETAILS

8:30-9:00am - Sandy Township (PA) Sanitary Sewer System Evaluation

Speaker: Steven Gibson, PE, Gwin, Dobson & Foreman, Inc.

This presentation summarizes a comprehensive sanitary sewer system evaluation performed in Sandy Township, PA which included flow monitoring, smoke testing, dye testing, CCTV mainline and lateral inspections, manhole inspections, and correction actions. The evaluation was used to identify I/I sources, remedy system deficiencies, and design critical collection system improvements.

9:00-9:30am - Philadelphia Finds a New Solution to Rehab Sewers Efficiently

Speaker: Jeff Twardzik, Philadelphia Water Department

As an alternative to conventional bid packages, the City of Philadelphia developed a construction contract to identify sewers in need of rehabilitation through video inspection and perform routine or accelerated sewer rehabilitation. The contract is expected to include cured-in-place pipe lining of approximately 5 miles of 8" to 48" sewers.

10:30-11:00am - Selecting an Adequate Trenchless Rehabilitation Alternative for Sanitary Sewer Mains

Speakers: Cory Salmon, EIT, and Matthew Cichy, PE, both with Herbert, Rowland & Grubic, Inc.

Sanitary sewer rehabilitation is a necessary burden that municipalities face daily to ensure the longevity of collection systems. This presentation will explore trenchless sewer rehabilitation alternatives including some emerging technologies and variables to consider when selecting a trenchless rehabilitation alternative.

11:00-11:30am - Cost-Effective NPDES and CSO Compliance Using Modeling Tools

Speaker: Charles Wilson, Hazen and Sawyer

The Lackawanna River Basin Sewer Authority complied with one of their NPDES requirements through cost-effective flow monitoring and hydrologic/hydraulic modeling and received written approval from PADEP. Wet weather percent capture of more than 85% was demonstrated effectively by understanding the sewer collection system and developing an accurate predictive tool.

ENGINEERING PROGRAM - WILD ROSE AB

Moderator: Justin Mendinsky, Herbert, Rowland & Grubic

8:00-8:30am - Trihalomethane (THM) Mitigation in the Distribution System

Speaker: Tom Caulfield, UGSI Solutions, Inc.

THM's have become a water quality issue that utilities are grappling with across Pennsylvania and the United States. Most utilities have considered and implemented measures to reduce THM production in the production facility. How utilities can use the distribution tanks in their system to mitigate THM's in their water supply and aid in maintaining compliance and higher water quality will be discussed.

8:30-9:00am - Trihalomethane (THM) Removal in Finished Water Storage Tanks

Speaker: Dale H. Kopp, ARRO Consulting, Inc.

ARRO Consulting, Inc. has experience using air stripping within water systems to reduce trihalomethane (THMs). This presentation will discuss this system of reduction and management, having been installed in a 400,000-gallon elevated storage tank and can affect up to a 50% reduction in THMs.

9:00-9:30am - Reducing DBPs at WWTPs using Peracetic Acid: Benefits, Challenges, and Pilot Case Studies

Speakers: Scott B. Crosswell, PE, BCEE, and Mark Pickering, PE, both with GHD

Consideration of the use of Peracetic Acid (PAA) as a wide spectrum disinfectant in wastewater is increasingly common in areas where the permittee is required to reduce the Disinfection Byproducts (DBPs) prior to receiving water discharge. PAA characteristics, functionality, equipment applications, and pilot case studies at NY and PA facilities will be presented.

10:30-11:00am - Chlorine Dioxide - The Mighty Mouse of Disinfectants

Speaker: Gary M Lohse, PE, De Nora Water Technology

Chlorine Dioxide is one of the strongest oxidants available for disinfection of water and wastewater. It is widely used in water treatment plants to help prevent the formation of chlorine by-products and as a disinfectant for wastewater effluent reuse. A detailed look at the advantages and disadvantages of chlorine dioxide as a disinfectant in various applications will be presented.

11:00-11:30am - Making the Best of a Slippery Situation - Improving Grease Receiving and Processing Operations

Speaker: Craig Murray, D'Huy Engineering, Inc.

This presentation highlights the best practices for grease receiving and processing at a WWTP. These practices were identified through review and operation of an existing system, pilot testing of multiple new systems, and site visits and discussions with other grease operations.

FINANCE PROGRAM: - EMPIRE D

SELF-DEFENSE AND RESILIENCY IN A TIME OF UTILITY PRIVATIZATION

Moderators: Adrienne Vicari and Kiana Tralongo, both with Herbert, Rowland & Grubic

Learn why municipalities are increasingly considering the sale of their water and wastewater systems and how a sale is executed. See what you can do to guard against privatization, including improving your system's financial performance, cutting costs through partnerships, and offering annual rental payments to alleviate general revenue concerns.

8:00-8:30am - Why are Municipalities Considering the Sale of Their Public Water or Wastewater Systems?

Speaker: Adrienne Vicari, PE, Herbert, Rowland & Grubic, Inc.

Hear about the financial pressures that municipalities are facing and the reasons selling their water or wastewater system may seem like a good solution to those pressures. Learn about recent legislation that's made it easier and more lucrative for municipalities to sell their system.

8:30-9:00am - How Can Utility Managers Better Operate, Maintain and Improve Their System to Guard Against Sale?

Speaker: Kiana Tralongo, Herbert, Rowland & Grubic, Inc.

Learn how to reduce costs and improve access to grant funding through full cost pricing, asset management and capital improvement planning. Hear how improving your system's financial performance can help you persuade municipal leaders to hold onto the assets rather than surrender their future revenue-earning capabilities.

9:00-9:30am - When Does Selling a Utility Make Sense and How Can Municipalities Make the Process Go More Smoothly?

Speaker: Tom Wyatt, Dilworth Paxson LLP

Learn how to compare the costs and benefits of selling a utility system to determine if it's the right decision for your community. Learn how to ensure your system is properly valued, and see a step-by-step overview of the sale execution process. (What is required? How long does it take?)

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TECHNICAL PROGRAM DETAILS

10:30-11:00am - When Maintaining Local Control of the System is Desired, How Can a Municipality Still Get Cash to Address Its General Fund Problems?

Speaker: Jens Damgaard, Eckert Seamans

Many municipal leaders believe the only way to earn a return on their utility assets is to sell them. This presentation will discuss how authorities can provide general revenue relief to their municipality without surrendering future revenue and control through a private sale.

11:00-11:30am - How Regionalization Can Provide the Cost Savings Needed to Maintain Public Ownership

Speaker: E. Lee Stinnett, II, Salzmann Hughes

Learn how partnering with neighboring municipalities can make it more sustainable to maintain public ownership of utility assets. Obtain practical advice on negotiating partnerships to achieve economies of scale and streamline costs while protecting autonomy.

INDUSTRIAL PRETREATMENT PROGRAM - MAGNOLIA CD

Moderators: Judy Musselman, GHD, and Randy Schaffer, Capital Region Water

8:00-8:30am - Industrial Pretreatment Facility for Meat Processing Waste

Speaker: Kelly Brenner, ARRO Consulting Inc.

This case study will outline the study, design and construction of an industrial pretreatment facility for John F. Martin & Sons. The facility treats wastewater from their bacon processing facility in Womelsdorf, PA. The presentation will focus on challenges overcome during the course of the project and current treatment performance.

8:30-9:00am - Codigestion with Food Wastes and FOG

Speaker: Wayne McFarland, GHD

This presentation provides an overview of food wastes and fats, oils and grease; improvements in biogas yields; and operational challenges with anaerobic digestion waste to energy processes. Recommended design practices and rules of thumb are included to reduce operational problems.

9:00-9:30am - Improved Process Control and Increased Nitrification Efficiency of Refinery Wastewater

Speaker: Jason Calhoun, NUVODA/RF Wastewater

Petroleum refinery wastewater is a complex mixture of hydrocarbons and inorganic compounds that are often found to be inhibitory to the activated sludge process, leading to unstable treatment performance, making operation problematic. This study evaluates the treatment efficacy of kenaf as a bio-media when added to an activated sludge system creating a hybrid granular process capable of increasing nitrification efficiency and overall treatment performance.

10:30-11:00am - Innovative Biosolids Conditioning at an Industrial Pretreatment Facility

Speaker: Lee Tharps, CH2M

This presentation focuses on a full-scale installation at the Lehigh County Authority (LCA) pretreatment plant of an innovative technology to condition liquid biosolids ahead of belt filter press dewatering using compressed air. The results offer a direct comparison of dewatering performance on identical presses running side by side on the same material, with and without conditioning.

11:00-11:30am - Pretreatment Improvements at an Ice Cream Manufacturer

Speaker: Randy Schaffer, Capital Region Water

This presentation will discuss installation and operation of pretreatment facilities at an ice cream manufacturer to manage high organic and solids loadings and to reduce surcharge assessments.

STORMWATER PROGRAM - MAGNOLIA AB

Moderators: Nathan Walker, Wood

8:00-8:30am - Complementary Design Approaches Using Both Green and Gray Design Solutions to Reduce Flooding and CSO in the City of Pittsburgh

Speakers: Tom Batroney, PE, and Jeff Lenner, PE, both with Mott MacDonald

The Pittsburgh Water and Sewer Authority (PWSA) successfully blended both green and gray strategies to reduce the occurrences of localized flooding and mitigate CSO. This presentation will cover the complementary design approaches and the lessons learned when considering the incorporation of both green and gray techniques within a single project.

8:30-9:00am - Integrating Green Infrastructure, Traffic Re-Design, and Pedestrian Safety at 53rd & Baltimore Avenue in Philadelphia

Speaker: Andrew Anderson, Hazen and Sawyer

As part of Philadelphia's Green City, Clean Waters program, the 53rd Street & Baltimore Avenue represents a unique collaboration between PennDOT and Philadelphia Water. Design is ongoing for almost 5,000 square feet of rain gardens to be retrofit on former slip lanes, which presented a pedestrian and vehicular safety improvement opportunity. Unique constraints, site factors, and design challenges will be discussed.

9:00-9:30am - Regional Approach to Stormwater Management

Speaker: Kate Henry, PE, ISS Management, LLC

ISS Management, LLC, constructed a regional basin in the Northeast section of Philadelphia that manages stormwater from 20 properties over an approximately 50-acre watershed. The project was successful in large part due to ISS' ability to bring all stakeholders together to convince them of the benefits of collaboration.

10:30-11:00am - Triple Bottom Line Approved Alternative to Infiltration Design

Speaker: Zachary Ranstead, PE, LEED-AP, T&M Associates

This presentation highlights the common natural process of shallow interflow, acknowledged in the PADEP BMP Manual, and stream baseflow replication, the result of conventional infiltration design. This approach supplements the existing Manual and is a pending alternative standard in the new Manual. The simple cost-effective methodology facilitates a streamlined approval process for public and private projects.

11:00-11:30am - A Green Infrastructure Case Study: Overcoming Maintenance Challenges with Responsive Restoration

Speaker: Lisa Werder Brown, Economic Development South/ Saw Mill Run Watershed Association

Using a case study framework, this presentation explores specific challenges associated with Green Infrastructure maintenance, including: location, design, climate, partnerships, and communication. The presentation will also show how the key partner organization repaired and improved vital community partnerships to restore and replant a neglected bioswale.

TECHNICAL PROGRAM DETAILS

TUESDAY AFTERNOON

COLLECTION SYSTEMS PROGRAM: - CRYSTAL A

INFLOW/INFILTRATION

Moderators: Anthony Dill, ARCADIS, and Melissa Smith, GHD

1:00-1:30pm - PADEP Overview of Private Property Inflow and Infiltration

Speaker: David Burke, PADEP Southeast Regional Office

This presentation will provide an overview of the regulatory basis for inflow and infiltration abatement, including a discussion of the consequences of having a hydraulic overload, and DEP's perspective on the significance of private laterals in a corrective action program.

1:30-2:00pm - Understanding Flow Meter Data, and Using It to Quantify I/I and to Prioritize I/I Reduction Efforts

Speaker: David W Shirk, PE, Buchart Horn, Inc.

Every operating authority or municipality with sanitary sewer facilities is concerned about the expense of conveying and treating inflow and infiltration (I/I). Many agencies have flow metering programs which assess I/I quantities and prioritize I/I reduction efforts. This presentation will describe best practices for data management and identification of I/I.

2:00-2:30pm - Getting the Most Out of Flow Metering Site Selection

Speaker: Josiah Bair, EIT, GHD

Using lessons learned in Lancaster Area Sewer Authority's (LASA) successful flow metering program, site selection is essential to an effective flow metering program – differentiating between good data and wasting valuable resources. A simple three-step process of office analysis, field assessment, and initial data assessment helps assure effective metering results.

3:30-4:00pm - Inflow and Infiltration Removal: Three Communities, Three Approaches. What Were the Results, What Did We Learn?

Speakers: Christopher Henry, PE, and Kemal Niksic, PE, both with Mott MacDonald

This presentation will highlight characteristics of inflow and infiltration removal programs developed by three neighboring municipal authorities in Pennsylvania. Each program included flow monitoring, CCTV inspections, and CIPP rehabilitation. Variations in implementing these programs has resulted in three unique approaches to inflow and infiltration removal with varying levels of success.

4:00-4:30pm - Key Elements of a Successful Inflow/Infiltration Program

Speakers: Mitchell Collins, EIT, GHD, and William Weaver, Lower Paxton Township Authority

Lower Paxton Township Authority has successfully implemented an I/I mitigation program demonstrating cost effective removal results. Key fundamentals to the program's success: solid programmatic approach with full buy-in; continued evaluation of rehabilitation cost-effectiveness; utilization of hydraulic modeling to evaluate alternatives; and solid metering and GIS data to support decision confidence.

CONSTRUCTION PROGRAM - WILD ROSE AB

Moderator: Justin Mendinsky, Herbert, Rowland & Grubic

1:00-1:30pm - Use of Design-Build for Project Delivery - Overview of Several Public Projects in the Region, and Lessons Learned

Speaker: Isaac Katz, O'Brien & Gere

This presentation will dive into the details on several recent design-build projects. The design-build projects include a wastewater PS and FM, water distribution, and upgrades at WWTPs for municipal and federal owners. Each project brings its own twist to the table, with opportunities to take these lessons into the future.

1:30-2:00pm - Strasburg Water Resource Recovery Facility Yields Major Cost Savings

Speakers: Andrew Casolini Dal Bo, PE, LEED AP, and Brian Sibiga, PE, both with Wendel

Progressive design build delivers a more economical project then the alternatives. Owners, contractors and engineers build in energy efficiency and collaborate bringing long-term operational savings. The Town of Strasburg WWTP succeeded and is meeting strict permit limits (.3P/3N). Learn how Progressive Design Build project saved the town $12 million.

2:00-2:30pm - Divide and Conquer: Breaking Up a Large Linear Project into Smaller Pieces to Achieve Goals

Speaker: John V. Stullken, GHD

Case study of a 5-mile, 24" High Density Polyethylene (HDPE) force main installed via Horizontal Directional Drilling (HDD) will be discussed. The overall project was divided into six contracts to be designed, bid, and constructed in parallel to save time and increase bidding competitiveness. Unique challenges included a river crossing and alignment through environmentally sensitive areas and commercial development.

3:30-4:00pm - Good Contractor Relations Equal Smooth Construction Projects

Speaker: Glenn DeHaven, CCM, T&M Associates

This presentation is designed to provide participants with tips and strategies to minimize Owner/Consultant/Contractor/Inspector conflicts on construction projects. Less conflict results in less project churn and fewer cost overruns and project delays. Participants will receive practical advice and tips from Owners, project management consultants and construction contractors on how to handle job site disagreements in professional, positive ways.

4:00-4:30pm - Claims 101: Simple Steps to Ward Off Lawsuits

Speaker: Kristen Braden, PE, Esq, H.R. Gray

Construction projects rarely progress as scheduled. Weather conditions, changes in plans and specifications, and unforeseen conditions can disrupt a project – leading to claims. In this session, participants will review the claims process including claims avoidance, mitigation, the importance of documentation and the role of a claims consultant in this process.

INDUSTRIAL PRETREATMENT PROGRAM - MAGNOLIA CD

Moderators: Judy Musselman, GHD, and Randy Schaffer, Capital Region Water

1:00-1:30pm - Dynamic, Efficient and Cost-Effective Database and Statistics Tools for Coal Combustion Residuals Rule Groundwater Monitoring and Compliance

Speaker: N. Rao Sankarmanchi, PE, CDM Smith, Inc.

Extensive requirements for groundwater monitoring data collection, analysis, and reporting were imposed on companies with coal ash disposal facilities under the EPA's Coal Combustion Residuals Rule. The specialized data management and statistics tools that were developed to assist one energy company in Pennsylvania with CCR Rule compliance will be discussed.

1:30-2:00pm - Strategies for Managing Highly Variable Loads at a Regional Industrial Pretreatment Plant

Speaker: Diana Heimbach, CH2M

The Lehigh County Pretreatment Plant is a robust and flexible facility that can treat highly variable wastewaters using conventional treatment trains and smart strategies to reduce the load on the Allentown Wastewater Treatment Plant.

2:00-2:30pm - Oxidation of Solvents Using Plasma in Pharmaceutical Wastewater

Speaker: Daniel J Cho, Onvector

Plasma is an emerging advanced oxidation process (AOP) that simultaneously generates multiple oxidants including ozone and UV. This session reviews advantages and disadvantages of plasma compared with other AOP. The session also covers performance and efficiency data for oxidation of solvents used in pharmaceutical manufacturing.

STORMWATER PROGRAM - MAGNOLIA AB

Moderator: Nathan Walker, Wood

1:00-1:30pm - Updating Your PRP or TMDL Plan with New Projects

Speaker: Mark Harman, ARRO Consulting, Inc.

This presentation will show municipalities how to identify future land planning projects or funding sources; show how the 2018 MS4 operation and maintenance responsibilities for privately owned BMPs provide a means to facilitate partnerships with private entities; and explain the regulatory requirements for updating your PRP or TMDL plan to obtain the necessary approval from PaDEP.

1:30-2:00pm - Evaluating the Technical and Administrative Capacities of MS4 Municipalities to Implement a Regional Pollutant Reduction Plan

Speaker: Kara M. Kalupson, RETTEW Associates, Inc.

RETTEW Associates is evaluating the technical and administrative capacities of eight MS4 municipalities in the Cocalico Creek watershed to implement a regional pollutant reduction plan. Based on municipal interviews, key tasks will be assigned to the municipality most readily able to complete them in a timely and cost-effective manner.

2:00-2:30pm - Starting a Stormwater Utility - From Scratch

Speaker: William P. Gralski, PE, Hampden Township

The presentation will discuss some of the challenges faced during the first two years of the Hampden Township Sewer Authorities Stormwater Division. It will include a discussion about: MS4 program; budgeting; asset management; deferred maintenance; and initial phases of implementing a stormwater authority.

3:30-4:00pm - Not Your Father's Buick - Beyond Traditional Delivery of Stormwater

Speakers: Jill Marie and Ron Geiger, both with HDR Engineering, Inc.

Hear about trends seen across the country regarding alternative delivery of stormwater infrastructure, with a presentation on the latest strategies including integrated program management, Community-Based P3, and Design/Build/Operate, focusing on economic stimulus, faster procurement, financing options, shifting of risk, and adding value to the community.

4:00-4:30pm - The City Beautiful H2O Program Plan: Rehabilitating and Enhancing Infrastructure through an Integrated Wet Weather Plan for Harrisburg

Speakers: Matthew Vanaskie, CDM Smith;
Claire Maulhardt, Capital Region Water; and
John Aldrich CDM Smith

Capital Region Water has embodied the principles of the original City Beautiful plan of Harrisburg to rehabilitate, renew, and construct stormwater and sewer infrastructure to address water quality challenges through integrated wet weather planning analyses while improving the social and economic well-being of its citizens.

STUDENT RESEARCH PROGRAM & POSTER CONTEST - EMPIRE D

1:00-4:30pm

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 five 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 three poster presenters in both undergraduate and graduate categories will receive the Student Research Poster Award. All poster will be available for viewing by conference attendees, and awards will be presented during the Research Program.

WEDNESDAY MORNING

PROFESSIONAL WASTEWATER OPERATIONS PROGRAM - WILD ROSE AB

Moderator: Carrie Keeley, Philadelphia Water Department

8:00-8:30am – Chemical Precipitation as Primary, Polishing or Back-up Process for Phosphorus Removal

Speaker: Jurek Patoczka, Mott MacDonald

The presentation is an update on practices and considerations concerning chemical precipitation of phosphorus, based on recently published new edition of Water Environment Federation Manual of Practice No. 37 "Operation of Nutrient Removal Facilities." The presenter was the lead author of Chapter on Chemical Precipitation of Phosphorus.

8:30-9:00am - The Conversion of a Package Plant to BNR Operation and Process Troubleshooting

Speaker: Tim Daily, Pennoni

A package plant was converted to the MLE process. Initially, the process would successfully reduce the effluent total nitrogen concentration. However, the treatment deteriorated and denitrification stopped occurring. The presentation will review the design, implementation, and the process control changes instituted to address the rise in effluent total nitrogen concentration.

9:00-9:30am - Instrumentation for Nutrient Optimization

Speakers: Marc Neville, PA Department of Environmental Protection, and
Walter Higgins, US Environmental Protection Agency

Presenters will discuss and display the types of instrumentation used in nutrient reduction optimization at wastewater treatment facilities. These include in-situ dissolved oxygen, pH, oxidation/reduction potential, nitrate-nitrogen, ammonium ion-selective electrode, as well as basic data logging network and outputs used for graphing operational trends and developing treatment strategies. Pros and cons of various detection methods are discussed, as well as practical use and limitations relative to wastewater treatment.

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10:00-10:30am - Case Studies of Optimizing Nutrient Removal Capabilities of Existing Sewage Treatment Facilities

Speakers: Marc Neville, PA Department of Environmental Protection, and Walter Higgins, US Environmental Protection Agency

Presenters will discuss their approach to plant optimization with an emphasis on nutrient reduction. Two case studies will be presented where the Sewage Treatment Plant superintendents worked as a team with DEP and EPA technical assistance staff to reduce effluent total nitrogen with plants not designed to do so. Attendees will be able to gather techniques and information that will be useful to their plant.

10:30-11:00am - Ammonia Permits and Pennsylvania Lagoons: Regional Case Studies of Plants That Can Beat <1 mg/L in <34°F Water

Speaker: Todd Latchaw, Nexom

Ammonia limits are now commonplace in lagoon-based WWTP permits, leaving engineers to decide: can we save this existing infrastructure? A case study of Ellicottville, NY's SAGR post-lagoon nitrification—which has been shown to consistently reduce ammonia to <1 mg/L in <34°F water—will be presented.

WATER SUSTAINABILITY & REUSE PROGRAM - MAGNOLIA CD

Moderators: Anthony Elberti, Gannett Fleming, and Edward Spayd, Herbert, Rowland & Grubic

8:00-8:30am - Beat Ultra-Low Phosphorus Targets with Reactive Filtration: How Citronelle, Alabama Consistently Hits 0.02 mg/L

Speaker: Todd Latchaw, Nexom

As Phosphorus-fed algae blooms continue to plague North American bodies of water, regulators are pressuring WWTPs to meet ever-lower Phosphorus limits down to micrograms per liter. Learn how Citronelle, AL's Blue PRO® reactive filter produces <0.02 mg/L TP effluent with adsorption/reaction kinetics that improve on traditional particle coagulation and filtration.

8:30-9:00am - Application of Submerged Structured Sheet Media for Activated Sludge Plant Retrofit

Speaker: David Barrasse, Brentwood Industries, Inc.

Wastewater treatment plants using activated sludge processes often face the challenges of treating a higher flow or meet more stringent ammonia discharge limit. A submerged structured sheet media system was developed and applied as a simple, economical retrofit to existing activated sludge plant to increase treatment capacity and improve nitrification.

9:00-9:30am - Pilot Study of Submerged Structured Sheet Media for Post Denitrification

Speaker: Julia Zhu, Brentwood Industries, Inc.

A submerged anoxic biofilm reactor to be integrated with existing trickling filters to achieve biological nitrogen removal is under development. The results of two pilot studies at two trickling filter plants will be presented. Both demonstrated the effectiveness in achieving high level denitrification.

10:00-10:30am - Case Study of Blending Blower Technologies for Optimum Efficiency

Speaker: Paul Petersen, Atlas Copco

This strategic design of aeration blower systems to decrease capital cost expenditures, increase overall aeration system efficiency, and provide superior turndown for improved DO control has been implemented in Letchworth, United Kingdom for several years. This innovative design is beginning to gain traction in the United States.

10:30-11:00am - Novel Use of HIX-Nanotechnology Aided by CO2 for Simultaneous Phosphate Recovery and Desalination for Reuse of Municipal Wastewater

Speaker: Chelsey Shepsko, Lehigh University

A hybrid ion exchange process selectively removes phosphate from municipal wastewater streams with pure recovery after exhaustion. A weak acid cation exchanger in front of this process will increase phosphate uptake capacity while simultaneous desalination is performed. Regeneration with carbon dioxide is a more sustainable option that decreases regenerant waste.

RESEARCH PRESENTATIONS

Tuesday, 1:00-4:30pm - *Empire D*

The Research Program showcases the ongoing research activities in the field of wastewater, water quality, and environmental management relevant to Pennsylvania. Presentations will be made by this year's Student Research Award winners.

Student Podium & Poster Presentations

Title:	Characterizing *Cryptosporidium* spp. in a Municipal Watershed
Student:	Michelle Fedun Lehigh University
Advisor:	Dr. Kristen Jellison
Title:	Waste to Food: Protein Production by a Duckweed Polyculture Grown throughout a Pilot-Scale Ecological Wastewater Treatment System
Student:	Benjamin Roman Penn State, University Park
Advisor:	Dr. Rachel A. Brennan
Title:	Copper Removal by Electrowinning Process from Waste Brine Solutions
Student:	Linlin Tang Penn State, Harrisburg
Advisor:	Dr. Yuefeng Xie
Title:	Production of Nitrogen- and Phosphorus-Rich Crystals from Municipal Wastewater for Sustainable Nutrient Recovery
Student:	Rachel Tenney Lafayette College
Advisor:	Dr. Arthur Kney and Dr. Polly Piergiovanni

Student Poster Presentations

Title:	Nursery Supplies Wastewater Analysis Project
Student:	Adam Bell Penn State, Harrisburg
Advisor:	Dr. Yen-Chih Chen
Title:	Impact of Nitrogen Removal in Wastewater Treatment on DBP Formation at Downstream Drinking Water Treatment Plants
Student:	Adam Cadwallader Carnegie Mellon University
Advisor:	Dr. Jeanne VanBriesen
Title:	Effects of Deicing Salts on Soil Leachate Quality
Student:	Karan Jain Penn State, Harrisburg
Advisor:	Dr. Shirley Clark
Title:	*Cryptosporidium* Detection in Watershed
Student:	Lu Luo Lehigh University
Advisor:	Dr. Kristen Jellison
Title:	Nitrate Removal Performance in a Sulfur-Limestone Amended Agricultural Drainage Tubing System
Student:	Ryan Rippeon Elizabethtown College
Advisor:	Dr. Brenda Read-Daily

Does Your Community/Organization Have a Newsletter? If So, You'll Want to Visit the PWEA Public Education Toolbox!

We all recognize that it is important to communicate to our customers. Many communities have newsletters and local newspapers that would welcome informational or educational articles. The PWEA Public Education Committee has been gathering newsworthy articles that can be edited and easily adapted for use within your community and is pleased to offer a communication tool for water professionals.

If you don't have time to write an article or simply don't like to write, visit the PWEA "Public Education Toolbox." The Public Education Toolbox will include a selection of documents that can be downloaded in WORD format. The posted articles are not copyrighted, which allows anyone the ability to edit and adapt them to their specific use. The articles posted have been freely donated by the authors with no conditions or promises attached. Articles will include, but not be limited to, topics such as FOG, sewers, biosolids, and easements.

The Public Education Toolbox also contains informational brochures that can be downloaded, printed, and distributed to your customers.

Visit PWEA's Home Page and click on the Education tab, then select the Public Education Tool Box link.

Our concern for the environment is more than just talk

As we continue to deliver valuable information through the pages of this magazine, 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 magazine in the most environmentally-friendly process possible. Here is what we mean:

- We use lighter publication stock that consists of recycled paper. This paper has been certified to meet the environmental and social standards of the Forest Stewardship CouncilTM (FSC®) and comes from responsibly managed forests, and verified recycled sources making this a RENEWABLE and SUSTAINABLE resource.
- Our computer-to-plate technology reduces the amount of chemistry required to create plates for the printing process. The resulting chemistry is neutralized to the extent that it can be safely discharged to the drain.
- We use vegetable oil-based inks to print the magazine. This means that we are not using resource-depleting petroleum-based ink products and that the subsequent recycling of the paper in this magazine is much more environment friendly.
- During the printing process, we use a solvent recycling system that separates the water from the recovered solvents and leaves only about 5% residue. This results in reduced solvent usage, handling and hazardous hauling.
- We ensure that an efficient recycling program is used for all printing plates and all waste paper.
- Within the pages of each issue, we actively encourage our readers to REUSE and RECYCLE.
- In order to reduce our carbon footprint on the planet, we utilize a carbon offset program in conjunction with any air travel we undertake related to our publishing responsibilities for the magazine.

So enjoy this magazine... and keep thinking green.

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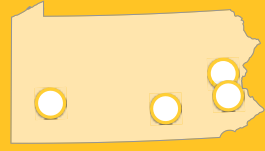

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COMMUNITY SERVICE PROJECT

Did You Know?

Pennsylvania has the most miles of rivers and streams of any state besides Alaska? Trees filter polluted runoff before it reaches those streams. The #Keystone10MTrees Partnership is planting 10 million trees in Pennsylvania by 2025 to improve the water quality in our rivers and streams.

On Sunday, June 3rd, about 40 volunteers helped to meet this goal by planting approximately 300 trees at the nearby Boat House Road Park! We thank them for donating their time and energy.

We would like to thank the Derry Township Municipal Authority and the Manada Conservancy for identifying the site for the tree planting and the PWEA Students & Young Professionals Committee for organizing everything in order to help make PWEA's first Community Service Project a reality.

The Keystone 10 Million Trees Partnership provided shovels and other equipment to plant the trees. Our sponsors provided funds to purchase additional items needed:

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For more information, go to: www.TenMillionTrees.org

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COMMITTEE MEETING SCHEDULE

All meetings will be held in the Nigerian Ballroom, unless otherwise noted.

Sunday, June 3
1:00pm Exhibits & Sponsors Subcommittee (Bear's Den)

Monday, June 4
7:00am Laboratory Practices Committee
7:15am Training Committee
7:30am Biosolids Committee
7:30am Professional Wastewater Operations Committee
7:30am Public Education Committee
7:30am Safety Committee
7:30am Students & Young Professionals Committee

Tuesday, June 5
7:00am Collection Systems Committee
7:00am Industrial Waste Pretreatment Committee
7:15am Engineering & Construction Committee
7:15am Stormwater Committee
7:30am Utility Management Committee

2018 PWEA Annual Business Meeting

Notice is hereby given that the Annual Business Meeting of the Pennsylvania Water Environment Association will be held on Monday, June 4, at 12:30pm in the Cocoa 1 Room at the Hershey Lodge & Conference Center Coffee and dessert will be available.

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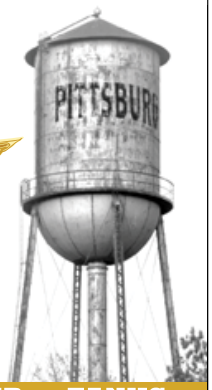

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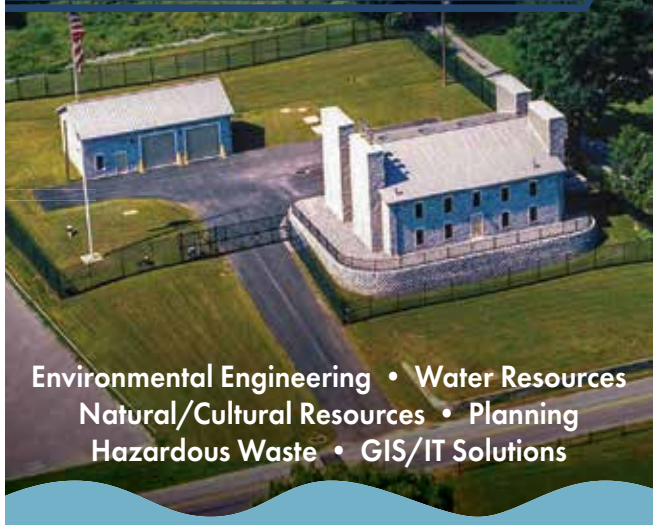

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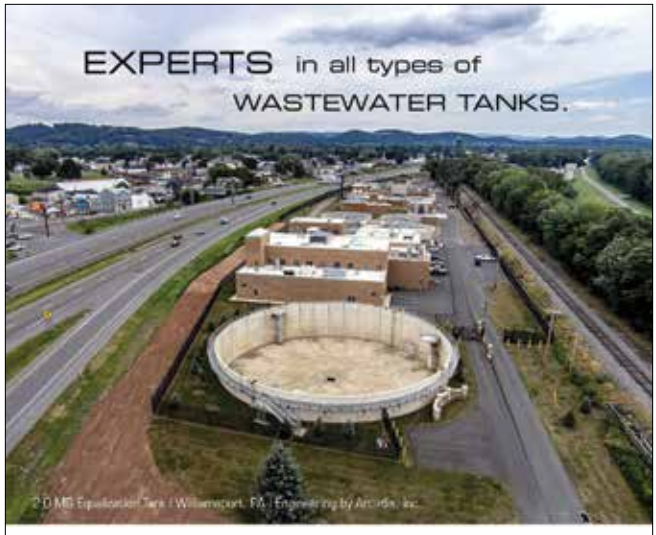

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PENNTEC 2019 CALL FOR ABSTRACTS

Pennsylvania Water Environment Association
91st Annual Technical Conference & Exhibition (PennTec)
Penn Stater Conference Center Hotel
June 2-5, 2019 – State College, PA

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 2019.

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 July.** You will be asked to identify which of the 12 sessions would best fit your topic. Submissions should be emailed to: 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.

CERTIFICATION

PA DEP Operator Certification

The PA Department of Environmental Protection (PA DEP) has approved permanent continuing education status for the PWEA Annual Conference. The Conference is being planned in accordance to the requirements of House Bill 183 (Act 11) and application has been approved to provide five (5) contact hours to eligible **wastewater operators**. The PWEA is a PA DEP accredited sponsor and is permitted to issue continuing education credits 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 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. 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

PWEA technical sessions are not pre-approved by the State Registration Board. Therefore, it is not possible to guarantee their acceptance for certification purposes. PWEA will issue an attendance certificate provided you submit a tracking sheet which will be available at the Registration Area. PE's, LS's and Geologists earn 3 Professional Development Hours (PDH) per half day session.

Other Certification

At this time, the PWEA cannot provide continuing education certification for anyone other than PA DEP water and wastewater operators. However, Certificates of Attendance can be prepared and mailed upon request. It is your responsibility to check with your certification board to determine whether this type of certificate is acceptable.

Looking for Career Advancement?

Open employment positions posted with PWEA can be viewed at any time through the Association's website. From the Home Page (**www.pwea.org**), click on the "News & Info" tab and then select "Job Board - Employment Positions"

Is Your Organization Looking to Fill a Position?

The Job Board is a complimentary service which provides a targeted and time-responsive service connecting water quality professionals with current employment opportunities. The public has 24/7 access to the online Job Board via the PWEA website. Your organization's ad will remain posted online for a period of 90 days and organizations can repost if the position remains unfilled. Employers seeking qualified candidates are encouraged to participate in this complimentary service. Click the link above and begin adding content of your organization's employment ad.

Ads to sell personal property will not be accepted. Ads are restricted to non-commercial purposes. The Pennsylvania Water Environment Association reserves the right to reject ads it deems unsuitable.

Submit your organization's ad by visiting www.pwea.org and then click on the News & Info tab.

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- Mitsubishi Electric ozone generators
- Noreva nozzle check valves
- Pulsed Hydraulics, Inc. (PHI) mixing systems
- Rainbird Inline filters & separators
- RedZone collection system & mapping equipment
- S&N Airoflo floating aerators
- Tenco Hydro DAF systems
- Wagner Fluid Systems package plants

PA Sales Staff

Art Auchenbach
Augie Koloras
Carl Janson
Mike Wilks

MD Sales Staff

Tom Schell
Tom Rainier

Offices Locations

Blue Bell, PA
Reading, PA
York, PA
Crofton, MD

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