

2025 WWETT Show Education Program – Session Details

Session Code: MO01

Session Title: Building a Sewer and Drain Inspection Program for Plumbers

Date: Monday, February 17

Time: 9:00AM - 10:30AM

Speaker(s): Carl Marc-Aurèle, Formadrain, Inc. & James Kicklighter, Technical Services Manager, MaxLiner, LLC

Description:

This session will include an overview of NASSCO's new Building Sewer and Drain Inspection Certification Program (BDSI) to assist plumbers, sewer and drain contractors, and inspectors in the proper inspection and assessment of private property building sewer and drains for the benefit of real estate transactions and general best practices. Attendees will review specific details to be recorded during an inspection, including property location, inspector information, point of access/pipe characteristics, general inspection details, and inflow characteristics, including downspouts, floor drains, and sump pumps.

Learning Objectives:

1. List the critical details that must be recorded during a building sewer and drain inspection, including property location, inspector information, point of access, and pipe characteristics.
2. Apply NASSCO's BDSI protocols to ensure proper inspection of private property sewer and drains.
3. Describe the BDSI™ certification program to improve real estate transactions by assessing and documenting sewer and drain conditions, and providing actionable insights that can inform property evaluations and negotiations.

Session Code: MO02

Session Title: Soil as a Treatment Media

Date: Monday, February 17

Time: 9:00AM - 10:00AM

Speaker(s): Joseph A. Valentine, VW Consultants, LLC

Description:

This session will be an introductory discussion on the importance of the soil as a treatment component for an onsite system. Understanding the elements that make up soil and how their makeup, structure and consistency impact how wastewater is handled as it passes through the different horizons in the soil will enable participant to comprehend the importance of this misunderstood component. This understanding of the soil drives how well the wastewater will need to be treated before it reaches or is returned to the water cycle.

Learning Objectives:

1. Explain the treatment that occurs as the wastewater passes through the soil.
2. Describe the importance of the soil treatment area as a component of the onsite system.
3. Apply the knowledge of soil to help evaluate if a soil treatment area is functioning as intended.
4. Describe the different types of soil encounters and the impact they have on the soil treatment area component.

Session Code: MO03

Session Title: Disinfection in Onsite Wastewater Treatment Systems

Date: Monday, February 17

Time: 9:00AM - 10:00AM

Speaker(s): Brett Wieber, Esq., Norweco, Inc. & Tiffany Squire, Norweco, Inc.

Description:

Raw wastewater can contain organisms that cause a number of diseases in humans, such as cholera, typhoid, dysentery, polio, and meningitis. Treatment of wastewater, both aerobic and anaerobic, can reduce the number of potential disease-causing organisms; however, an additional disinfection method to ensure the deactivation or destruction of such organisms is often required when there is an increased risk of public exposure to the treated wastewater. It is especially important if reuse of the wastewater is desired. This talk will present the two most common disinfection methods, chlorine and ultraviolet, in detail; explain how they work; explain how a 'dose' is calculated; and relay operation and maintenance activities that are necessary for proper operation. Ozone and peracetic acid are less common disinfectants, but will be introduced. The concept of 'log reduction values,' used as a concept for managing microbiological risks, will be presented along with the proposed NSF 385 standard for disinfecting products.

Learning Objectives:

1. Explain why disinfection is important in the protection of public health and name two diseases that are transmitted through wastewater.
2. Identify the two (2) most common types of disinfection methods for onsite wastewater systems.
3. Discuss the fundamentals of 'Log Reduction Values' in describing disinfection efficiency.
4. For each disinfection method, describe how the method works and how 'dose' is calculated.
5. For each disinfection method, discuss the key O&M practices needed to ensure continued operation of the disinfection method.

Session Code: MO04

Session Title: Professionalism in the Portable Sanitation Industry

Date: Monday, February 17

Time: 9:00AM - 10:00AM

Speaker(s): Jacky Ward, PolyJohn Canada

Description:

In this session, you will learn to recognize the pivotal role that demeanor and conduct play in shaping positive customer interactions. By exploring various scenarios, you'll not only understand what constitutes professional behavior, but also gain the confidence to exemplify it consistently. Elevate the value of portable sanitation services by embodying professionalism in every aspect of your work. These skills can improve customer retention, employee retention and company reputation. Whether you're a seasoned professional or new to the industry, this course offers valuable insights and practical tools to enhance your performance and make a lasting impression on your customers.

Learning Objectives:

1. Understand how to evaluate company culture and make recommendations for improvement at various levels.
2. Explain the impact professionalism has at the company level and broader industry level.
3. Apply strategies for professionally managing common and difficult challenges with customers.
4. Implement appearance and communication tactics at the individual level that can level up public perception of the individual and company.

Session Code: MO05

Session Title: Leveraging Artificial Intelligence for Advanced Wastewater Pipe Inspection and Asset Management: Transforming Infrastructure Maintenance in the 21st Century

Date: Monday, February 17

Time: 9:00AM - 10:00AM

Speaker(s): Scott Thayer, Ph.D., Edge AI Solutions, Inc.

Description:

The rapid urbanization and aging infrastructure across the globe present significant challenges for the efficient management and maintenance of wastewater systems. Wastewater pipes, often buried deep beneath the ground, are critical components of urban infrastructure, ensuring the safe transport of sewage and stormwater. However, the inspection and maintenance of these pipes have traditionally been labor-intensive, expensive, and fraught with inefficiencies. The advent of Artificial Intelligence (AI) offers a transformative approach to addressing these challenges, providing enhanced capabilities for the inspection, diagnosis, and management of wastewater systems. This session explores the applications of AI in wastewater pipe inspection and asset management, highlighting the revolutionary impact AI technologies are having on the industry. The integration of AI into this field is not just a technological advancement, but a necessary evolution to meet the demands of modern cities and to ensure the longevity and reliability of critical infrastructure.

Learning Objectives:

1. Review the revolutionary impact of AI in wastewater inspection and asset management.
2. Discuss how AI is not just a technological advancement, but an evolution to ensure the longevity and reliability of critical infrastructure.
3. Analyze how machine learning and computer vision are redefining the inspection process.
4. Examine the importance of predictive maintenance models.

Session Code: MO06

Session Title: Pump Sizing 101

Date: Monday, February 17

Time: 9:00AM - 10:00AM

Speaker(s): Michael Kelley, Zoeller Pump Co.

Description:

This session focuses on submersible pump designs and differences, including which pump to use for which application, pump sizing, and best practices in the field. Other topics include: what questions to ask to accurately size a pump; why sizing is important; what a pump performance curve is and how to read it; pump capacity requirements and how flow is calculated for each application; the importance of velocity in pipe; and how to calculate TDH. There will be an example of sizing a pump with appropriate charts and tables.

Learning Objectives:

1. Identify what questions to ask to gather the required information for pump sizing.
2. List three different types of wastewater and which pumps are best suited for each.
3. Define a pump performance curve.
4. Explain why sizing matters.
5. Read pump sizing charts, such as friction and equivalent length of fittings.
6. Provide an example on how to size a pump.

Session Code: MO07

Session Title: Who Spilled THIS? Best Practices for Spill Prevention and Safe Clean Up

Date: Monday, February 17

Time: 9:00AM - 10:00AM

Speaker(s): Ben Kele, Arris Water & Casey Fiedler, Michigan Septic

Description:

Onsite service providers routinely work in remote or difficult terrain, and in extreme weather conditions. Sooner or later, you are bound to have a spill. The normal #1 or #2 is one thing—but a hazardous load, including chemicals or industrial waste, is something entirely different. Are your cleanup training programs up to date? When was the last time you ran a drill or reviewed the spill response plan and supplies your employees are supposed to be aware of? This session will cover best practices to prevent spills and if they happen, how to clean them up safely.

Learning Objectives:

1. Evaluate the adequacy of your current spill response plans and make appropriate updates to ensure they align with industry best practices.
2. Apply the latest techniques for safely cleaning up hazardous spills, minimizing environmental impact and ensuring worker safety.
3. Implement strategies to identify and address situations that could lead to spills and incorporate these preventive measures into your operational protocols and safety culture.

Session Code: MO08

Session Title: Creating a Revenue Mindset to Increase Lead Generation, Sales and Profitability

Date: Monday, February 17

Time: 9:00AM - 10:00AM

Speaker(s): Sandy Papavero, CEO Warrior & Jason Noel, CEO Warrior

Description:

Many home service business owners and employees in the trades suffer from limiting beliefs that hold them back from the success they deserve. The voice in their heads tells them it is easier to stay where they are and operate from a mindset of scarcity. They feel stuck in a rut but don't know how to get out. That's where a change in mindset can help them overcome the challenges of limiting beliefs. In order to grow a business, owners must shift their mindset so that they empower themselves and their leadership team to make decisions based on abundance. In order to affect a change in their business, leaders need to work on modifying their behavior so that they project a positive identity. Owners need to stop working in the business and begin working on the business. This is best achieved by learning how to delegate responsibilities to the right team members. Owners need to effectively communicate their thoughts, experience and vision to their employees so they don't project their limiting thoughts onto others, while providing their team with the tools they need to do their jobs. You are not selling services, you are improving lives. You are not imposing on your customers' time, you are availing them of your value. By developing a revenue mindset, you will remove the blind spots in your business vision that are preventing you from filling your sales funnel with the most qualified leads that result in high sales and increased profitability.

Learning Objectives:

1. Explain how their current identity is keeping them stuck in a holding pattern that is preventing them from properly scaling their business.

2. Create a shift in their mindset and identity to prepare them for success by pushing past their roadblocks and limiting beliefs.
3. Run an exercise into their subconscious thinking so that they will better understand their prospects, clients and employees' thoughts and experiences.
4. Build a successful sales and leadership program through a deeper knowledge of Representational systems, allowing them to better understand how they process and store information.
4. Implement strategies and unlock the blind spots in their current way of thinking so they can get rid of any belief systems that are holding them back from success.

Session Code: MO09

Session Title: Setting Up Building Sewer and Drain Inspection Programs for System Owners

Date: Monday, February 17

Time: 11:00AM - 12:00PM

Speaker(s): Ed Ho, Engineer, San Francisco Public Utilities Commission

Description:

In this session, municipal employees will learn the basics of proper building sewer and drain inspections and will understand the importance of consistent building sewer and drain inspection as a holistic part of an entire system. They will also be introduced to ways to develop programs for their jurisdiction.

Learning Objectives:

1. Explain the fundamental principles of building sewer and drain inspections, specifically for municipalities.
2. Describe the importance of consistent building sewer and drain inspection as part of a holistic system.
3. Develop sewer and drain inspection programs for their jurisdiction.

Session Code: MO10

Session Title: Navigating the National Disposal Crisis: Challenges, Success Stories and Future Perspectives

Date: Monday, February 17

Time: 10:30AM - 12:00PM

Speaker(s): Jason Birdsong, JT Services

Description:

The septage management and disposal crisis in America is a pressing issue that demands immediate attention and collective action. In this session, industry leaders will delve into the various aspects of this crisis, exploring what it looks like in different areas, the challenges faced, success stories that offer hope, the extent of effort required, associated costs, and projections for the future. By examining these critical elements, we aim to empower participants with knowledge and strategies to navigate and contribute positively to resolving this crisis. Panelists will also answer participant questions about ideas and strategies that have worked and have not worked, and the continuing effort to bring this to the attention of regulators and government officials to help address this looming topic.

Learning Objectives:

1. Explain the current circumstances and challenges around disposal of septage waste.
2. Explore ideas and theories to help develop a sustainable plan for septage management going forward.
3. Analyze innovative concepts for waste management and consider different solutions for their circumstances.

Session Code: MO11

Session Title: Community System Management Programs: Avoiding the Pitfalls

Date: Monday, February 17

Time: 10:30AM - 12:00PM

Speaker(s): Mike Stephens, Guardian Wastewater Services

Description:

Operation, maintenance, and management (OMM) of our wastewater collection and treatment systems is a critical part of the long-term success in effective sewer service for some communities. This session will discuss some of the details of various decentralized community wastewater management programs and models. Both successful and unsuccessful elements of a program will be shared. Various choices as to how to structure your management and oversight of community systems will also be discussed. Much of this presentation will be applicable to both publicly and privately owned wastewater collection and treatment systems. This session is useful for designers, operators, developers, and local units of government as they plan for cluster and community wastewater systems.

Learning Objectives:

1. Decide which management model might be the best option for their community system.
2. Evaluate the structure of their own management program for potential omissions or conflicts.
3. Incorporate safeguards against insufficient oversight or lack of funding.
4. Delineate the necessary roles and responsibilities of each person involved in the community system management process.

Session Code: MO12

Session Title: Portable Sanitation and Work Sites

Date: Monday, February 17

Time: 10:30AM - 12:00PM

Speaker(s): David Kropf, Mr. John

Description:

This 90-minute course is designed to assist portable sanitation operators and their teams in growing their skills and confidence in serving work site customers.

Learning Objectives:

1. Differentiate needs and best practices for different types of work sites.
2. Explain the key aspects of special types of work sites, such as federal installations, schools, and big box stores.
3. Determine the optimal number and types of portable units required for work sites.
4. Identify both ideal and acceptable placement configuration options at various work sites.
5. Identify specific behaviors you should employ and those you should avoid when placing, servicing and picking up at work sites.

Session Code: MO13

Session Title: Vital Maintenance for Your Combination Unit

Date: Monday, February 17

Time: 10:30AM - 12:00PM

Speaker(s): Jack Haaker, Haaker Equipment Company & Matt Woods, Haaker Equipment Company

Description:

This presentation will focus on the key safety, maintenance, component adjustment, and pre-trip inspection of a Combination Unit to be completed through the normal operation day. Attendees will gain expert knowledge on how to maintain their vehicles to prolong the life of their equipment while also staying safe on the job. The speakers will provide a curriculum that will educate attendees on how to safely maintain their combination sewer cleaners no matter what type of unit they are using. Their educational approach is to inform operators and mechanics on how to operate and maintain the equipment safely so they can go home to their families every night.

Learning Objectives:

1. Take all necessary safety measures when operating and maintaining a Combination Unit.
2. Conduct necessary pre-trip inspections.
3. Properly maintain a Combination Unit to prolong the life of the equipment, including identifying lubrication points and where to find maintenance manuals and maintenance decals that list the suggested maintenance intervals.

Session Code: MO14

Session Title: Turnkey Lift Stations: Sizing and Selecting Pumps, Basins and Controls

Date: Monday, February 17

Time: 10:30AM - 12:00PM

Speaker(s): Michael Kelley, Zoeller Pump Co.

Description:

This presentation covers everything needed to size and select a complete, turnkey solution to wastewater and stormwater lift stations. This presentation will cover the three primary components: pumps, basins, and controls, and the factors to consider when sizing and selecting each. This presentation is valuable to engineers, contractors, installers, and anyone in the water/wastewater industry.

Learning Objectives:

1. Explain the following related to Pumps: Questions to ask/information needed; different forms of wastewater and the different pumps used for each; flow and how to determine it; total dynamic head: static, friction loss, operating head; pump selection.
2. Explain the following related to Basins: Information needed; critical dimensions: min. diameter, inlet depth, submergence, working volume; accessories and options.
3. Explain the following related to Controls: Information needed; level monitoring options; accessories and options.

Session Code: MO15

Session Title: Troubleshooting and Repairing On-site and Decentralized Systems When the Four Horsemen Do Their Worst at Your Facility

Date: Monday, February 17

Time: 10:30AM - 12:00PM

Speaker(s): Ben Kele, Arris Water & Casey Fielder, Michigan Septic

Description:

Murphy's Law (if something can go wrong, it will go wrong) is true all over the world. If you're installing and maintaining on-site and decentralized wastewater systems, it's pretty much a given that Murphy is interested in what you are doing and will strike eventually. Just since last year's WWETT Show, we have all seen the impact of war, famine, fire, and flood on local and global systems. Wastewater Education 501(c)3 and Operators Without Borders are partnering to present a two-day disaster management

training workshop at this week's show. As a preview to that workshop, this session will share stories and lessons learned for troubleshooting and repairing on-site and decentralized systems when disasters hit. You will leave equipped with practical insights, strategies, and collaborative approaches to better prepare for and manage wastewater systems during times of crisis.

Learning Objectives:

1. Evaluate real-world case studies of how on-site and decentralized systems professionals have responded to crises, including identifying challenges faced, innovative solutions implemented, and lessons learned.
2. Develop strategies to enhance the resilience of on-site and decentralized wastewater systems in the face of unforeseen crises, including proactive planning and leveraging resources effectively.
3. Identify the benefits of international collaboration and knowledge sharing among wastewater professionals during disasters to mobilize resources to support affected communities.

Session Code: MO16**Session Title:** Managing Accountability in the Workplace**Date:** Monday, February 17**Time:** 10:30AM - 12:00PM**Speaker(s):** Scott Tackett, Violand Management Associates**Description:**

Accountability in the workplace can be difficult to manage for several reasons. Among them is the fear of upsetting employees, avoidance of difficult conversations, and an overall busyness that keeps our focus elsewhere. But for companies to run at maximum performance, accountability is crucial and needs to be conducted using a firm, fair, and consistent approach. Managers should not wait until someone "messes up." When it comes to accountability, managers must be proactive. In this presentation, Scott Tackett demonstrates the need for accountability and provides strategies for holding people accountable, along with tools to measure progress. He will show you how to overcome barriers and excuses that allow owners and managers to put their heads in the sand and inappropriate behaviors to manifest. Scott will also provide participants with suggestions for putting together a plan of action to improve their accountability management.

Learning Objectives:

1. Utilize the four major Key Performance Indicators that must be addressed in every organization .
2. Recognize the seven barriers to accountability that management creates and how to overcome them.
3. Identify the two critical and essential performance measurements: cost of quality and workflow variances.
4. Define the characteristics of an accountable manager.

Session Code: MO17**Session Title:** Drain Cleaning Best Practices**Date:** Monday, February 17**Time:** 1:00PM - 2:00PM**Speaker(s):** Jerry Weimer, Jerry Weimer Consulting & David Hamberlin, HYDROMAX USA**Description:**

In this session, attendees will learn best practices, including unique considerations and challenges, for the proper cleaning of drains. A preview of NASSCO's new Drain Cleaning Certification Program, including proper steps and expected outcomes, will be shared.

Learning Objectives:

1. Apply best practices for proper cleaning of drains.
2. Avoid common pitfalls related to drain cleaning.
3. Describe NASSCO's new Drain Cleaning Certification Program.

Session Code: MO18

Session Title: What Can We Do About Septage Disposal Problems?

Date: Monday, February 17

Time: 1:00PM - 2:30PM

Speaker(s): Dave Gustafson, University of Minnesota

Description:

This presentation will look at the options septic pumpers have to take control of their one disposal destiny. The presentation will include a comparison of land application, disposal at publicly-owned treatment works, and dedicated septage treatment facilities. The economics of each option is considered to allow a decision be made quantitatively. The template for comparison provided will allow individuals to make their own disposal decision.

Learning Objectives:

1. Research different options available for septage waste disposal.
2. Analyze the financial aspects of the different options they may interested in pursuing.
3. Develop a plan of action to address the septage waste disposal issue.

Session Code: MO19

Session Title: Dosing Systems and Controls: Operation, Maintenance and Troubleshooting

Date: Monday, February 17

Time: 1:00PM - 2:30PM

Speaker(s): Bruce Lesikar, P.E., Ph.D., Lesikar Consulting, Inc.

Description:

Dosing systems serve important functions in onsite wastewater treatment systems. The dosing system collects, stores and distributes liquid from the water source. The sizing of the dosing system components is critical to defining the benefits offered through use of the system, such as flow equalization; uniform distribution of the liquid and the organic load over the 24-hour day; storage during a malfunction to allow time for replacement of components; and communication with the owner on the status of the system. The components of the dosing system include the tank, pump, discharge assembly, wiring and controls. The controls can be defined as demand or timer control. The service provider should set the controls properly to keep system performing. Additionally, the pump operation data recorded through the use of cycle counters and elapsed time meters can communicate the need for system maintenance. The timer control system assists in identifying soft malfunctions which can be corrected before reaching a hard malfunction condition.

Learning Objectives:

1. Describe methods to limit the risk of solids entering the pump.
2. Describe the difference between demand and timer operation in a dosing system.
3. Utilize pump operational data to communicate the need for system maintenance to the owner.
4. Measure and set the float connections in a dosing tank.

Session Code: MO20

Session Title: Overview of Trenchless Pipeline Technologies

Date: Monday, February 17

Time: 1:00PM - 2:30PM

Speaker(s): Dave Badgley, Performance Pipeline Technologies

Description:

Collection systems are the wastewater utilities' largest asset, more than the treatment plant. The US Environmental Protection Agency (EPA) estimates that there are over 800,000 miles of mainline sewer pipelines in the US and over 500,000 miles of private sewer service laterals. Each of these conveyance systems is susceptible to structural failure, blockages, and overflows. EPA estimates that \$271 billion is needed to maintain and improve the nation's wastewater infrastructure.

Trenchless technologies have become a major alternative to traditional digging for replacement of pipelines and maintenance holes. This session will take an understandable approach using photos, videos, and case histories to cover the following:

- Problems, such as infiltration, exfiltration, roots, corrosion, and structural defects
- New advanced technologies available to remove heavy deposits to prepare pipes for lining
- Where trenchless technologies can be used
- The five basic styles of technologies used for replacement & rehabilitation of gravity & pressure pipelines:
 - Dig and replace
 - Trenchless spot repairs
 - Slipliners, including continuous, sectional, and spiral wound liners
 - Cured-in-Place pipe liners (heat & UV cured)
 - Folded and re-formed pipe liners
- Case histories for projects

This session will give an overview of the advancements in pipeline cleaning, inspection, and maintenance technology, as well as a toolbox of the advancements in trenchless technologies that are available to eliminate most of the general maintenance problems and extend the life of the pipelines for another 50 + years.

Learning Objectives:

1. Discuss the conditions that increase costs of maintenance and shorten the life of pipelines.
2. Review the applications that require dig and replace, and which are candidates for trenchless technology.
3. Discover the trenchless technology options available for pipeline rehabilitation.
4. Discuss the unique equipment required for different trenchless rehabilitation methods.

Session Code: MO21

Session Title: Best Practices and Troubleshooting Onsite Electronics

Date: Monday, February 17

Time: 1:00PM - 2:30PM

Speaker(s): Joe Zimmerman, SJE Rhombus

Description:

This presentation is intended to demonstrate a better working knowledge of how control panels work, and how to safely and correctly identify problems in the field. We will discuss electrical terms and what they mean, explain the physical and electrical differences in floats and how they work, and control panel

components and how they relate and work together in the panel. We will touch on multi meters, the proper ways to troubleshoot a float, and tricks to point us in the right direction when troubleshooting a panel.

Learning Objectives:

1. Discuss Components - what they are and how they work, physically and electrically.
2. Explain theory of operation for residential & light commercial onsite control panels.
3. Read schematics and wiring diagrams to give a basic understanding of installation and troubleshooting, and care of residential and light commercial onsite control panels.
4. Demonstrate basic knowledge and understanding of electrical terms.
5. Describe the correct way to install controls in different applications.

Session Code: MO22**Session Title:** Optimizing Operations for Decentralized, Commercial, Industrial and Mining Wastewater and Stormwater**Date:** Monday, February 17**Time:** 1:00PM - 2:30PM**Speaker(s):** Jerry Hannah, Clearflow**Description:**

This session will share case studies about large-scale treatment plants that required solutions to meet their water quality objectives. We will also discuss how to make larger scale plants run more cost effectively and with less operator labor. The projects under discussion will have a wide range of inflow chemistry and attendees will have the opportunity to discuss their own troubleshooting needs.

Learning Objectives:

1. Describe proven solutions used by large treatment plants to meet water quality objectives.
2. Identify key factors that contribute to operational efficiency and cost-effectiveness at large-scale treatment plants.
3. Apply troubleshooting techniques to address challenges posed by diverse inflow chemistries and adapt solutions to your specific operational needs.

Session Code: MO23**Session Title:** Building a Skilled Workforce: Strategies for Implementing Training Programs**Date:** Monday, February 17**Time:** 1:00PM - 2:30PM**Speaker(s):** Dennis Hamon, Dennis The Apprentice**Description:**

Too many companies don't have the apprentices they could and the training programs they should to ensure the profitable growth and success of their company. This session will guide you through the practical steps you can take (even when you are a new or small company) to establish a training culture and program that will inspire you and your employees to do their best work and build a company you can be proud of.

Learning Objectives:

1. Plan financially to be able to afford an apprentice.
2. Start an effective apprentice program based on best practices.

3. Explain the importance of a meeting routine that leads to a training culture.
4. Attract and keep great apprentices that become your rock stars.

Session Code: MO24

Session Title: Trenchless and Other Rehabilitation Methods for Building Sewers and Drains

Date: Monday, February 17

Time: 2:30PM - 3:30PM

Speaker(s): Chris Macey, AECOM

Description:

Once a building sewer or drain has been inspected and cleaned, rehabilitation may be the logical next step. In this session, attendees will learn about various trenchless technologies and other methods to renew building sewers and drains and extend the life of the pipe.

Learning Objectives:

1. Apply trenchless technologies to renew building sewers and drains.
2. Extend the life of pipes through effective rehabilitation methods.
3. Describe other effective methods for sewer and drain rehabilitation outside of trenchless.

Session Code: MO25

Session Title: How Water Moves Through the Soil: Implications for the Treatment of Wastewater

Date: Monday, February 17

Time: 3:00PM - 4:00PM

Speaker(s): Joseph A. Valentine, VW Consultants, LLC

Description:

Tagging onto the presentation, "Soil as a Treatment Media," this session expands on the understanding of what happens to wastewater as it passes through the soil. A more in-depth look at how wastewater moves and those factors that may impact how and where it moves will be analyzed. We will also evaluate different geological and outside forces that will impact the movement and treatment of wastewater.

Learning Objectives:

1. Describe how wastewater travels through the soil.
2. Evaluate the impact of the different formations and geological foundations will have on wastewater movement.
3. Apply this knowledge to investigations on soil treatment areas.
4. Describe the importance of identifying soil horizons and the impact of impermeable layers to the flow of wastewater.

Session Code: MO26

Session Title: Introduction to Phosphorus Reduction Techniques and Technologies

Date: Monday, February 17

Time: 3:00PM - 4:00PM

Speaker(s): Kevin Sherman, SeptiTech, Inc.

Description:

You can make the argument that phosphorus reduction in wastewater is a more critical issue than nitrogen reduction is. Both nitrogen and phosphorus are essential nutrients to living things. Typically, phosphorus is the most limiting nutrient in fresh water environments, such as rivers, ponds and lakes. Salt

waters (oceans and estuaries) are usually nitrogen limited. Phosphorus is an essential component in important biological molecules, including adenine tri phosphate (ATP), adenine di phosphate (ADP) and Deoxyribose Nucleic Acid (DNA). Phosphorus is relatively scarce in the Earth's crust. Countries where phosphate rock is still plentiful are antagonistic to the interests of the United States. Phosphorus can be removed from wastewater by pollution prevention (changing product formulations) to not include phosphorus, diverting plumbing flows with significant phosphorus concentrations to storage, and using electrochemical methods to sequester phosphorus into multiple minerals.

Learning Objectives:

1. Recognize which biological molecules in a provided list contain phosphorus.
2. Pick two phosphorus removal techniques from a provided list.
3. Describe the treatment process behind one phosphorus removal technology.
4. Detail which water bodies are phosphorus-limited from a provided list.

Session Code: MO27

Session Title: Advancements in Manhole Rehabilitation

Date: Monday, February 17

Time: 3:00PM - 4:00PM

Speaker(s): Gregory Wallace, Imerys

Description:

This presentation offers a detailed explanation of the mechanism of corrosion specifically found in water and wastewater environments. We will share real field experiences, supported with photos of before and after installations, with an explanation of why the coating failed. As owners and operators realize they need to address biogenic corrosion in their own collections systems and leak mitigation in water structures, well directed questions need to be answered with technically supported experience and data in an effort to wade through the available options for future structure protection. This session will enhance the knowledge of the operator/designer/engineer and allow them to make an educated decision for their next project. Real field practices will be discussed.

Learning Objectives:

1. Discuss the history of Coatings.
2. Evaluate the latest in Coatings.
3. Explain common installation issues with Coatings.
4. Avoid pitfalls of neglecting good specifications for all Coatings.

Session Code: MO28

Session Title: Remote Monitoring and Wastewater Level Controls

Date: Monday, February 17

Time: 3:00PM - 4:00PM

Speaker(s): Joe Zimmerman, SJE Rhombus

Description:

This class will identify and discuss alternative liquid level controls for water and wastewater pumping applications. We will cover existing and new level control technology, including remote monitoring, and how it applies to various installations and system applications.

Learning Objectives:

1. Demonstrate a general understanding of current water and wastewater liquid level pump controls.
2. Identify the advantages and disadvantages of each different level control.
3. Discuss how the alternative liquid level control operates specific to pump control.
4. Reference and understand basic and advanced levels of remote monitoring.

Session Code: MO29

Session Title: Troubleshooting the Business: How to Deal with the Stuff that Doesn't Come Your Way via a Pipe

Date: Monday, February 17

Time: 3:00PM - 4:00PM

Speaker(s): Ben Kele, Arris Water

Description:

Running a business requires its own form of troubleshooting. In this presentation, the trials and tribulations of business partners, employment, client relations, cash flow management, dealing with growth, issues with suppliers, and protecting your company's IP will be discussed.

Learning Objectives:

1. Apply practical strategies and frameworks for addressing common business challenges.
2. Enhance skills in conflict resolution and negotiation techniques, specifically for resolving issues with business partners, employees, clients, suppliers, and other stakeholders.
3. Implement risk management practices to anticipate and prevent potential challenges in business operations.

Session Code: MO30

Session Title: Getting Some (Free Publicity, That Is)

Date: Monday, February 17

Time: 3:00PM - 4:00PM

Speaker(s): Suzan Chin-Taylor, Creative Raven

Description:

In today's hyper-connected world, gaining visibility is crucial for individuals and organizations alike. Yet, traditional advertising can be costly and often falls short of engaging audiences authentically. Enter the realm of free publicity – a powerful avenue for garnering attention without breaking the bank. This presentation delves into the art and how-to's of leveraging free publicity to elevate your brand, cause, or personal profile. We'll explore a plethora of strategies and tactics, from mastering the art of storytelling to cultivating strong media relationships. Discover how to craft concise compelling narratives that resonate with your target audience, turning your message into a magnet for attention. Learn the secrets to capturing the interest of journalists, bloggers, and influencers, and securing coveted media coverage. Furthermore, we'll delve into the digital landscape, uncovering the myriad opportunities available through social media, content marketing, and search engine optimization. Explore innovative ways to harness the power of viral content, amplify your reach, and spark conversations across diverse online platforms. But effective publicity isn't just about grabbing headlines – it's about building lasting relationships and fostering trust. We'll discuss the importance of authenticity, transparency, and credibility in your communications efforts, ensuring that your brand emerges as a beacon of integrity in a sea of noise. Whether you're a service provider, manufacturer or equipment distributor, a nonprofit organization, or an individual seeking to amplify your voice, this presentation will equip you with the tools and insights needed to shine brightly in the public eye.

Learning Objectives:

1. Unlock the potential of free publicity and be empowered to stand out in today's crowded media landscape.
2. Write compelling news releases and pitch them.
3. Develop a newsroom for their website.
4. Understand how press wire services work and the benefits of utilizing them.
5. Develop ideas for repurposing content to extend its power.

Session Code: MO31

Session Title: Marketing Strategies for Diversifying a Portable Sanitation Company

Date: Monday, February 17

Time: 3:00PM - 4:00PM

Speaker(s): Adam Ghrist, Lang Specialty Trailers

Description:

Diversification is crucial for sustained business growth, reducing risks, and accessing new markets. This session focuses on marketing strategies to diversify a portable sanitation company into restroom trailer rentals, targeting various customer needs. The outline covers market analysis, USP development, branding, website and SEO optimization, PPC campaigns, social media engagement, content marketing, and word-of-mouth strategies. The objective is for participants to establish a strong brand presence, attract customers, and drive business growth in the restroom trailer rental market.

Learning Objectives:

1. Explain the market analysis process to identify trends, demand, target customers, and competitors.
2. Discuss the benefits of diversifying into restroom trailer rentals, highlighting their features and advantages.
3. Apply branding and marketing techniques to develop a compelling Unique Selling Proposition (USP) that resonates with target customers.
4. Implement new strategies for successful entry into the restroom trailer rental market, including crafting effective messaging and developing a brand identity reflecting their values.
5. Apply techniques for consistent branding across all channels, apply strategies to optimize their websites for local SEO, define audience segments for targeted advertising, craft compelling ad copy, utilize social media effectively, implement referral programs, and maximize word-of-mouth marketing for business growth.

Session Code: MO32

Session Title: Building Sewer and Drain Safety Considerations

Date: Monday, February 17

Time: 4:00PM - 5:00PM

Speaker(s): Travis Savy, Savy & Sons & Dennis Pivin, NASSCO

Description:

Safety best practices will be shared with a special focus on the inspection, cleaning, maintenance, and rehabilitation of building sewers and drains. The presentation will include a safety precautions review and discussion about hazard assessment of the process and ways to protect workers using PPE.

Learning Objectives:

1. Apply safety best practices for building sewer and drain inspection, maintenance, and rehabilitation.
2. Properly assess common hazards related to building sewer and drain activities.
3. Protect workers using proper PPE.

Session Code: MO33

Session Title: Delaware Valley College Research Project: Lessons Learned from a Decade of On-lot Sewage System Research

Date: Monday, February 17

Time: 4:30PM - 5:30PM

Speaker(s): Joseph A. Valentine, VW Consultants, LLC

Description:

This session will be a case study in Sewage System Research and will discuss what lessons were learned about onsite systems, how they are designed, how they function, and what can impact systems positively and negatively throughout their life.

Learning Objectives:

1. Describe the long-term usage of onsite systems.
2. Critically analyze systems and question any underlying assumptions they may have had previously.
3. Explore innovative ways of addressing situations and evaluate their consequences.

Session Code: MO34

Session Title: Septic, Trash and Processing Tanks: Operation, Maintenance and Troubleshooting

Date: Monday, February 17

Time: 4:30PM - 5:30PM

Speaker(s): Bruce Lesikar, P.E., Ph.D., Lesikar Consulting, Inc.

Description:

A settling tank serves multiple functions in an onsite wastewater treatment system. The tank accepts liquid from the facility, collects solids that settle from the flowing liquid, serves as a treatment tank, and retains settled and digested solids. A settling tank uses gravity to facilitate heavy solids settling and lighter solids floating to develop three layers in the tank: sludge, scum and clarified liquid. The outlet baffle draws liquid from the clarified layer and restricts floating scum from exiting the tank. An effluent screen serves to retain suspended solids in the tank. Access risers facilitate inspection and maintenance activities, such as pumping stored solids. Tank sizing determines the storage volume for sludge and subsequently the solids removal frequency. Tank troubleshooting evaluates the tank condition and verifies components are present to control liquid flow, retain solids, and facilitate air venting as water enters and exits the tank. The settling tank is typically the first tank in the treatment train. The tank retains the suspended solids and trash that can disrupt the downstream treatment processes. A functional settling tank is critical to long-term performance of an onsite wastewater treatment system.

Learning Objectives:

1. Measure the sludge, scum and clarified layers in settling tank and identify if the tank pumping is needed.
2. Evaluate the baffles and effluent screen in a tank.
3. Describe the conditions indicating the tank is in an unacceptable condition resulting in the need for replacement.
4. Identify how air and water exchanges in a tank.

Session Code: MO35

Session Title: The Emergence of AI and its Future Impact on the Wastewater Industry

Date: Monday, February 17

Time: 4:30PM - 5:30PM

Speaker(s): Jim Aanderud, Permian Technologies

Description:

AI is rapidly advancing and transforming the world we live in. Over the past year, we've seen major breakthroughs that are affecting both our personal and professional lives. As AI influences every industry, staying updated with its evolving landscape is essential. In this class, we will explore emerging AI tools and trends and their implications in our personal and professional lives. Additionally, we will examine the impact of AI in the wastewater industry, both now and into the future. Our goal is to identify powerful tools that can significantly enhance our productivity and effectiveness.

Learning Objectives:

1. Identify AI tools that we can use in our personal and professional lives.
2. Discuss the recent breakthroughs in AI.
3. Look at how AI is impacting the wastewater industry.
4. Discuss the future of AI in wastewater.

Session Code: MO36

Session Title: Let's Have a Discussion - Talk Freely Among Friends About the State of the Decentralized Industry

Date: Monday, February 17

Time: 4:30PM - 5:30PM

Speaker(s): Ben Kele, Arris Water

Description:

This open discussion is a chance to let loose and get what ails you off your chest. We may not be able to right all that troubles the water world, but we may have a few of the answers. Here's your chance to share your opinions and solutions to raising the bar for the decentralized water professions and raising the public perception that we really do know our &^%\$!

Learning Objectives:

1. Identify practical strategies and frameworks for addressing common industry challenges.
2. Enhance communication and public outreach skills with business partners, employees, clients, suppliers, and other stakeholders.
3. Gain a sense of camaraderie and commitment within the industry.

Session Code: MO37

Session Title: From Vision to Execution: Building Your Business Plan

Date: Monday, February 17

Time: 4:30PM - 5:30PM

Speaker(s): John Monroe, Violand Management Associates

Description:

Companies that create and follow a business plan grow 30% faster than those that don't. But writing a successful business plan is a defined skill and takes concentrated effort. This fast-paced session provides a step-by-step process from defining your mission, to creating your objectives and tasks, to building, applying, and monitoring budgets. Business plans are not wish lists. They are tools that create conversation, buy-in, direction, and accountability. Using the Six Qualities of Successful Business Owners discussed in this session and pairing them with a comprehensive SWOT Analysis, participants will be able to go back to their office and craft a comprehensive and customized strategic plan to take their company, team, and themselves to the next level.

Learning Objectives:

1. Define a mission, vision, values, and objectives for their company.
2. Identify short-term targeted approaches and action items to achieve yearly objectives.
3. Develop and monitor budgets using ratios and benchmarks.
4. Assign and track responsibilities to appropriate team members to achieve maximum buy-in and results.

Session Code: TU01

Session Title: Building an Online Presence in the Wastewater Industry

Date: Tuesday, February 18

Time: 10:30AM - 12:00PM

Speaker(s): Luke Eggebraaten, Phaser Marketing

Description:

Attendees will learn how to effectively leverage digital channels to increase brand awareness, generate leads, and most importantly, attract the next generation of employees for their company. The presentation will cover various digital marketing strategies such as search engine optimization (SEO), social media marketing, Google Business Profile strategies, building your brand, the 80/20 rule, a delegation exercise for owners, and much more. It will also provide practical tips on creating engaging content, measuring the success of campaigns, and optimizing for conversions. By the end of the session, attendees will have measurable, actionable steps to follow to make these improvements all on their own.

Learning Objectives:

1. Define the "Big 4" social media platforms and how to utilize them for your business (for free).
2. Apply a new technique to effectively delegate your time as an owner so that you can own a business and not have the business own you.
3. Take the next step in bringing your company from offline to online effectively.

Session Code: TU02

Session Title: New Professionals Panel Discussion: Ask the Industry Veterans

Date: Tuesday, February 18

Time: 10:30AM - 12:00PM

Speaker(s): TBD

Description:

Join our panel discussion designed for newcomers to the wastewater industry as seasoned professionals share their invaluable insights and experiences. Gain practical advice on navigating the complexities of the field, discover the opportunities that lie ahead, and learn essential tips for achieving success from industry veterans. This interactive session will equip you with the knowledge and confidence needed to thrive in your new career. Attendees will also have the opportunity to ask questions of the panelists.

Learning Objectives:

1. Identify the many opportunities available to new wastewater industry professionals.
2. Avoid and overcome common challenges in the field.
3. Cultivate and leverage professional relationships within the wastewater sector, using insights from veterans to enhance your career development and industry connections.

Session Code: TU03

Session Title: Toilet Paper, Wipes and Low Flow Fixtures: New Challenges for Septic Systems

Date: Tuesday, February 18

Time: 10:30AM - 12:00PM

Speaker(s): Dominic Mercier, Enviro-STEP Technologies

Description:

Water resources scarcity is a real problem. Domestic water consumption has dropped almost everywhere in the US and Canada, and people are well aware of the importance of saving water. Reduced domestic water consumption translates into reduced sewage flow, or in other words, less dilution and consequently higher concentration of pollutant in the sewage. Combine the problem of less water and higher concentrations with the exponential use of cleaning wipes and toilet paper not compatible with septic systems and you have a recipe for disaster (clogging, reduced life expectancy, premature failure, water table contamination, etc.). This session will present data on sewage flows and pollutant concentration, as well as effects of toilet paper and cleaning wipes on septic systems. New practices for home owners and septic designers will be presented and suggested to prevent problems and optimize septic system performance and longevity.

Learning Objectives:

1. Explain the necessity to adapt septic design practices.
2. Educate people on their domestic water management and practices.
3. Perform a quick test to check if a certain type of toilet paper is compatible for a septic system.
4. Implement new design practices that will improve performance and lower the level of risk in a septic system.

Session Code: TU04

Session Title: Smart Moves for Your Porta Potty Business in Uncertain Times

Date: Tuesday, February 18

Time: 10:30AM - 12:00PM

Speaker(s): Jonah Chilton, ServiceCore

Description:

In this panel session, you'll hear from fellow portable restroom rental business owners who have been in your boots. They will share the best ways to expand your business and earn more money. This talk is all about giving you practical, straightforward advice that can help you grow your company without needing a business degree.

Learning Objectives:

1. Determine the right time to expand your service area.
2. Identify the best time to add product lines like roll-off dumpster rentals, temporary fencing, etc.
3. Apply strategies to take market share from your competitors.
4. Explain how changes in the US Presidency affect the portable sanitation industry.

Session Code: TU05

Session Title: Maximize Pumper Profitability with FOG Waste Streams

Date: Tuesday, February 18

Time: 10:30AM - 12:00PM

Speaker(s): Rachel Burton, ProcessWerx & Joe Renwick, Green Energy Biofuel

Description:

This session will cover current best practices for handling Fats, Oils, and Grease (FOG) to increase revenue, reduce disposal costs, and improve customer service. Attendees will hear strategic insights directly from other haulers and industry experts, highlighting the importance of innovative process equipment in FOG recovery, water treatment techniques, hauler route management, and customer service techniques that boost profits. From small-scale haulers and operators to large treatment facilities, attendees will learn how to better leverage their FOG waste streams using various scales of resource recovery and industry process equipment.

Learning Objectives:

1. Discuss the advantages of specific process equipment for FOG waste streams.
2. Explain how hauler route management and customer service impact efficiency and profitability.
3. Implement new techniques to improve wastewater quality from FOG waste streams.

Session Code: TU06

Session Title: ABC's of ATUs: Understanding Advanced Treatment Units

Date: Tuesday, February 18

Time: 10:30AM - 12:00PM

Speaker(s): Dennis Hallahan, Infiltrator Water Technologies & Ashley Donnelly, Infiltrator Water Technologies & Travis Johnson, Infiltrator Water Technologies

Description:

Join us for a 90-minute, three-part presentation to learn more about advanced treatment system offerings. The first segment covers the principles and processes by which these units treat wastewater to meet NSF/ANSI certification standards. The second part explores the installation process, highlighting best practices for optimal functionality. The final segment addresses standard operation and maintenance activities, along with how to identify problems before they become an issue. Attendees will gain an understanding of advanced treatment units, installation, and operation and maintenance.

Learning Objectives:

1. Outline the principles and processes used by advanced treatment systems to treat wastewater, including how these systems achieve NSF/ANSI certification standards.
2. Apply best practices for the installation of advanced treatment systems, ensuring optimal functionality and compliance with industry standards.
3. Describe standard operation and maintenance activities for advanced treatment systems, including how to identify and address potential problems before they escalate.

Session Code: TU07

Session Title: How ChatGPT and Other AI Tools Can Drive Business Efficiency

Date: Tuesday, February 18

Time: 1:00PM - 2:00PM

Speaker(s): Danny Braught, LMH Agency

Description:

Join Danny Braught, the CEO & Founder of LMH Agency, as he showcases the benefits of leveraging artificial intelligence, like ChatGPT, for your business. He will cover practical applications, walk through live examples, and share his knowledge of AI platforms to help your company optimize operations, elevate customer experiences, and drive growth. This presentation offers a valuable opportunity for professionals in the home services industry to gain practical knowledge and strategic insights into leveraging AI for business success.

Learning Objectives:

1. Explain what ChatGPT is and how to use it for your business.
2. Tailor the use of ChatGPT to your business and industry to achieve the best results.
3. Utilize pre-written ChatGPT prompts for your business.

Session Code: TU08**Session Title:** Navigating Difficult Conversations: Fostering Inclusivity in Diverse and Challenging Situations**Date:** Tuesday, February 18**Time:** 1:00PM - 2:00PM**Speaker(s):** Christopher Salem, Sustainable Success Coaching & Consulting - CRS Group Holdings, LLC**Description:**

In the fast-paced and essential industries of wastewater management and environmental services, fostering an inclusive workplace is critical for innovation, safety, and employee satisfaction. However, navigating difficult conversations about diversity and inclusion can be particularly challenging in these settings, where team cohesion and operational efficiency are paramount. Join us for an insightful session tailored specifically for professionals in the wastewater management and environmental services sectors. This talk will equip you with practical strategies to handle sensitive diversity-related discussions constructively and respectfully. You will learn how to create a safe space for open dialogue, address unconscious biases, and respond effectively to microaggressions.

Learning Objectives:

1. Equip yourself with techniques for fostering a culture of inclusivity amidst demanding operational environments.
2. Apply tools for identifying and mitigating unconscious biases that may affect team dynamics.
3. Implement strategies for addressing and resolving conflicts arising from diversity issues.
4. Apply best practices for inclusive communication and leadership in technical and field settings.

Session Code: TU09**Session Title:** Best Practices for Installing Septic Tanks**Date:** Tuesday, February 18**Time:** 1:00PM - 2:00PM**Speaker(s):** Travis Johnson, Infiltrator Water Technologies**Description:**

Septic tanks are strong, versatile, and enable a wide range of installation possibilities, including shallow installations and multiple and serial tank configurations. In this presentation, we will learn more about tanks for septic and potable water applications. The risk of flotation due to the presence of groundwater above the bottom of the tank will also be addressed. The goal of this presentation is to prompt regulators, designers, and installers to think about tank placement, installation, and buoyancy for the installation of any tank, keeping best practices and safety in mind.

Learning Objectives:

1. Define the function and importance of the septic tank.
2. Discuss best practices of tank installation.
3. Identify and apply anti-buoyancy principals.
4. Implement techniques learned in design, installation and O&M practices.

Session Code: TU10

Session Title: Building Robust Business Health: Strategies for Sustainable Success in Service Plumbing

Date: Tuesday, February 18

Time: 1:00PM - 2:00PM

Speaker(s): Nate Agentis, Plumbing CEO

Description:

Service Plumbing is complex and messy which makes Robust Good Health seem completely out of reach. In this session, we will explore three crucial learning objectives aimed at fortifying and defining the foundational elements of a service plumbing business. We will dive into understanding a company's core identity, then turn that understanding into actionable strategies. Participants will be equipped with the tools necessary to ensure their operational efforts are both effective and sustainable. Each objective is meticulously designed to build upon the last, creating a comprehensive approach to achieving robust organizational health.

Learning Objectives:

1. Define who you are: mission, values & dominant selling idea.
2. Prove it: clear vision, customer service & company culture
3. Measure: clear metrics, fiscal health & employee retention.

Session Code: TU11

Session Title: Choosing a Hydrovac: Understanding Vacs, Their Specs and Their Impact on Performance

Date: Tuesday, February 18

Time: 1:00PM - 2:00PM

Speaker(s): T.J. Steele, Vermeer

Description:

Selecting the right hydrovac for a company hinges on the nature of services provided, available access space, and the type of material to be stored in the tank. In this session, Vermeer experts will delve into how machine specifications influence performance. They will also explain various factors like DOT weight limitations, serviceability, and circumstances under which smaller trailer units or large truck hydrovacs might be more suitable.

Learning Objectives:

1. Discuss hydrovac performance specs and how it relates to productivity (including nozzle sizing and hydrovac service).
2. Choose the right Hydrovac for the application.
3. Weight Regulations: discuss federal bridge law and how it applies to Hydrovacs.

Session Code: TU12

Session Title: Function, Service, and Maintenance: Integrated Fixed Film Activated Sludge Systems

Date: Tuesday, February 18

Time: 12:30PM - 1:30PM

Speaker(s): Ed Schloss, JET Inc.

Description:

This session will provide an overarching view of the requirements for inspection, upkeep, and maintenance of the integrated fixed film activated sludge system. This presentation stream focuses on inspectors, service technicians, and field service crews who see and work on ATU systems in the field

every day. Attendees will gain knowledge of the major subject areas in the field of sewage treatment utilizing the Integrated Fixed Film Activated Sludge process with aeration.

Learning Objectives:

1. Provide an overview of system installation.
2. Discuss overall operations – how the integrated fixed film activated sludge media system works.
3. Explain the inspection and service of integrated fixed film activated sludge systems.

Session Code: TU13

Session Title: Preparing for Growth or a Strategic Exit: Navigating Your Business Options

Date: Tuesday, February 18

Time: 2:30PM - 3:30PM

Speaker(s): Nate Agentis, Plumbing CEO

Description:

This session is designed to equip service professionals with the tools needed for making forward-looking business decisions that will determine their company's path. The objectives encourage participants to critically evaluate their future business timelines and devise strategies that capitalize on potential growth opportunities. Collectively, these goals assist businesses in either paving the way for future expansion or preparing for a strategic exit, ensuring they are well-prepared for whatever lies ahead.

Learning Objectives:

1. Maximize the years ahead: Know your timeline and capitalize on it.
2. Grow your market footprint: Understand service expansion & market share growth.
3. Transition planning & selling: Identify your next leader and apply tips to transition or sell your business.

Session Code: TU14

Session Title: Inside the EPA's "Closing America's Wastewater Access Gap" Initiative

Date: Tuesday, February 18

Time: 2:30PM - 3:30PM

Speaker(s): Zachary Lowenstein, US Environmental Protection Agency (EPA)

Description:

EPA's Closing America's Wastewater Access Gap Initiative provides no-cost technical assistance to communities with failing septic systems or without existing wastewater infrastructure. Through the initiative, EPA also helps communities apply for funding to address wastewater needs. In February 2024, EPA expanded the Closing America's Wastewater Access Gap Initiative to assist 150 communities. This initiative, along with historic funding availability through the Bipartisan Infrastructure Law and other federal funding programs for water infrastructure, will make an impactful difference in the lives of countless people. This presentation will discuss the details of the Closing America's Wastewater Access Gap Initiative as well as provide a few case studies of communities that have received support through the program.

Learning Objectives:

1. Explain the scope and objectives of EPA's Closing America's Wastewater Access Gap Initiative, including the types of technical assistance provided.
2. Describe the process by which communities can apply for technical assistance and funding through the program, and other federal water infrastructure funding programs.

3. Analyze case studies of communities that have successfully utilized Closing America's Wastewater Access Gap Initiative.

Session Code: TU15

Session Title: The 2024 Portable Sanitation Industry Benchmark Report

Date: Tuesday, February 18

Time: 2:30PM - 3:30PM

Speaker(s): Jonah Chilton, ServiceCore

Description:

Join this session to go inside ServiceCore's latest Portable Sanitation Industry Benchmark Report. ServiceCore has surveyed hundreds of portable sanitation businesses to identify what the most profitable portable sanitation businesses are doing to achieve more growth and success than their competition. In this session, we will share the results of the 2024 Portable Sanitation Benchmark Report and how you can apply them to your own portable sanitation business.

Learning Objectives:

1. Compare your portable sanitation business against others in your region.
2. Analyze measurable benchmarks of operations.
3. Discuss the categories that are driving the most profits for a portable sanitation business.

Session Code: TU16

Session Title: Vacuum/Hydro Excavation Safety and Preventative Maintenance

Date: Tuesday, February 18

Time: 2:30PM - 3:30PM

Speaker(s): Dustin Rhodes, TRUVAC

Description:

This session will focus on truck/unit safety, operator safety, safe digging, and mechanical digging. Participants will learn best practices and practical strategies for conducting thorough pre-trip and routine maintenance inspections to optimize vehicle performance. We will also discuss the importance of utilizing proper personal protective equipment and implementing safe vehicle set-up techniques to safeguard operators. Finally, attendees will gain insights into safe digging practices, adhering to national guidelines to enhance site safety and minimize risks.

Learning Objectives:

1. Implement proper pre-trip and routine maintenance inspections to keep vehicles running at peak performance.
2. Apply proper personal protective equipment and vehicle set-up to protect operators.
3. Dig with care by applying the national guidelines available to dig sites.

Session Code: TU17

Session Title: Managing Control Panels for ATUs

Date: Tuesday, February 18

Time: 2:00PM - 3:30PM

Speaker(s): Pino Alonzi, SJE Rhombus & Jim Felker, SJE Rhombus

Description:

This session will take a hands-on look at the various control panels used with ATUs. Participants will be able to physically work with control panels during this presentation. The following concepts will be covered: theory of operation for timed dose and demand dose scenarios; data interpretation (cycle counts, run times, etc); collecting and understanding the data; and troubleshooting control panel issues.

Learning Objectives:

1. Manage both timed dose and demand dose panels.
2. Download and interpret data.
3. Troubleshoot system alarms.

Session Code: TU18

Session Title: Forging Dynasty Businesses: The Competitive Edge of Enduring Teams

Date: Tuesday, February 18

Time: 4:00PM - 5:00PM

Speaker(s): Chuck Violand, Violand Management Associates

Description:

People are one of the few remaining, reliable sources of sustainable, competitive advantage. Competitors will copy marketing strategies, and technology and process advantages will fade over time, but having the best people for your organization will turn customers into raving fans, allowing you to have a more enjoyable ride as you achieve your goals. There are several forces that place pressure on a small business's ability to attract and retain talented workers. Three such pressures are: an emphasis in the last 20 years on pursuing a four-year college degree rather than working in the trades or non-degreed positions; a lack of skills and tools within small businesses to effectively vet qualified candidates; and an unemployment rate so low that workers are "bidding up" initial employment offers and are tempted to chase alternate offers even after they're employed. Based on Violand's book, Forging Dynasty Businesses, this presentation explores the keys to unlocking the fundamental elements of an organization that serve as the foundation for small businesses to perpetually attract and retain top talent—those who fit with the organization's culture and core values, and who contribute to achieving the organization's goals.

Learning Objectives:

1. Redefine your company's employees as its most sustainable competitive advantage.
2. Identify 14 critical components that impact employee hiring and retention.
3. Create a culture that attracts and keeps the best people.
4. Discuss the owner/hiring manager's role in building the deepest bench possible

Session Code: TU19

Session Title: Commercial Conundrum: Challenging Onsite Commercial Systems

Date: Tuesday, February 18

Time: 4:00PM - 5:00PM

Speaker(s): Dennis Hallahan, Infiltrator Water Technologies

Description:

Onsite Wastewater systems can face challenges when dealing with commercial facilities. The "usual suspects," to name only a few, include higher flow rates, highly variable flows, large peak flows, high strength waste, and difficult waste composition. However, on top of those concerns, what does one do when dealing with an inexperienced designer presenting plans that are very limited? This presentation will discuss unique, real projects that faced differing problems and what was done to resolve the issues to advance the project. This presentation will help designers, engineers, and contractors be able to

recognize and respond properly for an improved system design, installation efficiency, and how best to cover their liabilities. The plans to be presented were sent in with very limited information, and we will look at each project and discuss with the audience possible paths to address each site.

Learning Objectives:

1. Discuss the complexity of commercial system design and possible solutions.
2. Identify potential problems before they arise.
3. Minimize risk to protect your business with proper communication, thereby mitigating potential liabilities.

Session Code: TU20

Session Title: Gas Monitor Training: The Big Hole in Confined Space Entry Training

Date: Tuesday, February 18

Time: 4:00PM - 5:00PM

Speaker(s): Jason Call, Gas Monitor Competence Training

Description:

There is a big hole in Confined Space Entry training: Gas Monitor Training! CSE training without gas monitor training (GMT) can create a false sense of security. After CSE training, workers understand the gases and dangers of confined spaces. But something vital is missing. Does the worker know their gas monitor as well as they should? Come learn how to build bridges between OSHA Training, Safety, Gas Monitor Manufacturers, Safety Vendors and your workers. Every brand of gas monitor is different. It is absolutely necessary for workers to understand the varied buttons, alarm settings, lights and sounds, sensors, pump speeds, etc., in order to know what to do, and not do, when facing the danger of entering a confined space. This one hour presentation explores: how GMT bridges the gap between "compliant" and "safe;" how GMT differs from manufacturers' training practices; why OSHA CSE training does not include GMT; and regulatory options to ensure complete training for confined space workers. You will leave with insights, understanding, hope and a plan.

Learning Objectives:

1. Discuss why CSE training alone does not prepare workers to confidently use gas monitors.
2. Identify key ways that GMT is the difference between a safe and unsafe worker.
3. Identify ways in which gas monitor manufacturers and safety professionals can partner to ensure proper training.

Session Code: TU21

Session Title: Picking and Combining the Right Drain Cleaning Tools for the Job

Date: Tuesday, February 18

Time: 4:00PM - 5:00PM

Speaker(s): David Dunbar, General Pipe Cleaners

Description:

Picking the right tool for the job is critically important for success in the trades. However, knowing the best way to combine your devices to create an effective synergy on the job can save you time and make you money. For the drain cleaning professional, this knowledge is especially important. Using multiple examples, David will recommend that the contractor use two or more machines to maximize their effectiveness. He will demonstrate how to look for ways to combine tools on the job and show that while all of their devices have specific uses and specialties, they can often be used together to augment each other's effectiveness and allow them to give better service and make more money. David will focus on the

various ways that contractors make money from drain cleaning and how to maximize their results through this synergy.

Learning Objectives:

1. Explain how drain cleaning tools can work together to do a better job for the customer and to ensure that they are not leaving anything on the table for themselves.
2. List the various ways the professional can use their equipment to maximize profits.
3. Increase profits while repairing our drain cleaning infrastructure.
4. Create a professional synergy by combining and fully utilizing their equipment.

Session Code: TU22

Session Title: Addressing Maintenance Issues and Best Practices for ATUs and Infrastructure/Office Practices for an ATU Installation/Service Business

Date: Tuesday, February 18

Time: 4:00PM - 5:00PM

Speaker(s): Steve Johnson, Consolidated Treatment Systems

Description:

In speaker Steve Johnson's travels, meeting with contractors, he has found that many lack the proper procedures to correctly perform maintenance and track the service for ATU's. The business model for performing service in a professional, profitable manner is vastly different from owning a mini excavator and installing systems. This presentation will cover the policies and procedures involved in setting up a service department and includes examples of ways to perform maintenance on ATU's, and how to best document the service. An assortment of forms related to customer education and service documentation that can be used will be shared, as well as how to work with customers when a problem arises.

Learning Objectives:

1. Implement maintenance performance processes and protocols.
2. Record and maintain proper service documentation.
3. Manage customer expectations when addressing operational problems.

Session Code: MKTG (WORKSHOP)

Session Title: Lifting the Veil: Revealing the Secrets Successful Marketers and Top Sales Pros Know

Date: Tuesday, February 18

Time: 9:30AM - 1:00PM

Speaker(s): Suzan Chin-Taylor, Creative Raven & The TUIT Group & Connor Dube, Harrington Enterprises

Description:

A how-to workshop for wastewater industry contractors, service providers and equipment/technology manufacturers or distributors - We all know that marketing is needed for increasing business—thriving and not just surviving in today's competitive landscape. However, with so many methods available, it can often feel overwhelming and complex. The good news is that marketing is simpler than you might imagine. In this workshop, we are going to "lift the veil" on marketing and share the fundamental key things that all successful marketing and high producing sales organizations know and use. If you want to: **MAKE MORE MONEY** by understanding how to use simple winning marketing tactics to generate sales and increase profits;
GAIN EXPERT INSIGHTS from seasoned professionals with extensive experience in wastewater infrastructure and treatment technology marketing and sales growth;

TAP THE POWER of Neuro Marketing to capture your prospects' attention, hold it and compel them to take action;
LEARN HOW TO FUTURE PROOF your business and develop long-range engagement strategies for new client acquisition, referrals and repeat business;
RECAPTURE LOST LEADS and be aware of the most common marketing pitfalls costing you business leads and ROI;
PINPOINT areas where your marketing investments aren't yielding results — and how to easily turn them around;
CLOSE MORE SALES by fine-tuning your approach and marketing message to resonate with your target audience;
EFFECTIVELY COMMUNICATE the value of your products or services, overcome objections, and convert more deals;
and USE DATA to guide messaging and when/if to pivot and shift

...then this workshop is for you.

This workshop is designed to transform your approach to marketing, lead generation and sales growth, ensuring you maximize every opportunity available, no matter your budget or size. Plus, you'll receive fun, practical exercises, homework activities and software tools to help you implement and integrate what you'll learn in the workshop. There will also be an interactive Q&A Session to ensure you get personalized advice tailored to your unique situation. Don't miss this opportunity to transform your growth and achieve your business goals in 2025 and beyond.

Learning Objectives:

1. Explain what marketing is and isn't, and the simple formulas that work universally
2. Implement secret strategies to identify and reengage lost leads you've already paid for
3. Evaluate why prospects think and behave the way they do and how to use it advantageously
4. Apply techniques for turning content into currency for your business
5. Identify unique marketing and sales tactics that are needed in the wastewater industry
6. Utilize methods for handling objections and turning skepticism into enthusiasm before you even speak with a potential prospect
7. Use digital tools to amplify your sales message to more leads
8. List ways to reach, nurture, and close more sales than ever before.

Session Code: WKSHP (WORKSHOP)

Session Title: Operating Principals of a Combination Machine

Date: Tuesday, February 18

Time: 9:00AM - 5:00PM

Speaker(s): Rusty Nezat, Nezat Training and Consulting, Inc.

Description:

The comprehensive workshop will cover pertinent aspects of Combination Machines that will help ensure the safe operation and maintenance of the unit. Areas covered will include: an overview of unit components, safety, high-pressure water system components, vacuum system components, set-up and operation, dynamic filling, lateral line cleaning, debris tank offloading, hydro-excavation, winterization, and more.

Learning Objectives:

1. Identify and describe the key components and operational functions of a Combination Machine.
2. Carry out routine and preventative maintenance tasks on a Combination Machine.

3. Apply industry-standard safety procedures while operating and maintaining a combination machine to minimize risks and ensure safe handling of the equipment.

Session Code: WE01

Session Title: The Power of Excellent Customer Service

Date: Wednesday, February 19

Time: 8:00AM - 9:00AM

Speaker(s): Erin Stahla, Stahla Services & Grant Stahla, Stahla Services

Description:

In today's competitive marketplace, excellent customer service is a critical component of business success. This session is designed to empower business leaders, customer service managers, and frontline staff with the skills and insights needed to deliver outstanding service experiences. Attendees will leave with a toolkit of strategies and skills to enhance their customer service delivery, drive business growth, and build a loyal customer base. Whether you are looking to refine your existing customer service strategies or build a new framework from scratch, this session will offer deep insights and actionable solutions to help you harness the power of excellent customer service.

Learning Objectives:

1. Service Excellence Standards: Apply key standards of service excellence, including benchmarks for quality, response times, and consistency, and how to maintain these standards even during peak times or crisis situations.
2. Effective Communication Skills: Master the art of communication with customers, including verbal and non-verbal cues, tone of voice, and clarity. We'll delve into how effective communication can resolve conflicts, build trust, and enhance customer satisfaction.
3. Building a Customer-Centric Culture: Foster a culture that prioritizes customer service across all levels of your organization. We'll discuss training techniques, motivational strategies, and leadership practices that inspire teams to deliver their best.
4. Measuring and Improving Service Quality: Effectively measure customer service performance using feedback, surveys, and key performance indicators. We'll discuss how to analyze this data to continuously improve service quality.

Session Code: WE02

Session Title: Decentralized MBRs: What Needs to be Done Differently for a Successful Treatment Plant

Date: Wednesday, February 19

Time: 8:00AM - 9:00AM

Speaker(s): Joe Rebori, BioMicrobics, Inc.

Description:

Membrane bioreactors are commonplace in municipal wastewater treatment plants designed to meet stringent discharge limits. The ever-growing demand to reuse water in a shorter cycle as scarcity increases has also relied more on MBRs. While proven successful at the municipal scale, MBRs require a different approach to their implementation in decentralized applications. In this session, we'll discuss the differences between the municipal and decentralized MBR systems and unique challenges faced by the latter. A framework for decentralized MBR systems will be presented, outlining the necessary roles played by design, manufacturing, installation, operation, and owners. Technical considerations will be provided for successful design and startup of remote MBR plants. Finally, a brief case study analysis of a decentralized MBR facility will be provided.

Learning Objectives:

1. Discuss differences between membrane bioreactors in municipal and remote settings.
2. Provide comments for someone considering an MBR for reuse or nutrient reduction.
3. Evaluate decentralized applications for specific nuances that impact MBR design and operation.

Session Code: WE03

Session Title: Securing Your Plumbing Business: Navigating Insurance and Risk Management

Date: Wednesday, February 19

Time: 8:00AM - 9:00AM

Speaker(s): Angelica Davila-Prado, After Hour Plumbing Inc.

Description:

This session will focus on navigating insurance and risk management in the plumbing industry. As contractors, we understand the importance of protecting our businesses against unforeseen risks and liabilities. In this session, we'll delve into essential insurance coverage and risk mitigation strategies tailored to the unique challenges faced by plumbing professionals.

Learning Objectives:

1. Identify the types of insurance coverage crucial for plumbing businesses (including liability insurance, workers' compensation, and property insurance) and describe how each type of coverage safeguards your business against different risks and liabilities.
2. Explore key considerations when selecting insurance policies (such as coverage limits, deductibles, and exclusions) and discover how to assess your business' specific needs and tailor insurance plans to provide comprehensive protection.
3. Apply practical risk management techniques to identify, assess, and mitigate potential threats to your plumbing business. From safety protocols and training programs to contract management and subcontractor oversight, discover effective strategies for minimizing risk exposure.
4. Explain the importance of having a proactive approach to claims management and response - navigate the claims process effectively, communicate with insurance providers, and advocate for your business's best interests in the event of a claim.
5. Stay ahead of emerging risks and industry trends that could impact your plumbing business. Explore topics such as cybersecurity threats, environmental regulations, and emerging technologies, and learn how to adapt your risk management strategies accordingly.

Session Code: WE04

Session Title: Confined Space Training: Non-Entry Equipment Selection

Date: Wednesday, February 19

Time: 8:00AM - 9:00AM

Speaker(s): Ed Fitzgerald, Ed Fitzgerald Consulting

Description:

In this session, we will review the need, use and selection of Confined Space non-entry rescue equipment for the wastewater industry. We will compare the advantages of both the tripod system and the davit system as a retrieval platform, as well as the use of two cables versus one cable and proper inspection of the equipment.

Learning Objectives:

1. Identify and describe the key types of non-entry rescue equipment used in confined spaces within the wastewater industry, including tripod systems and davit systems.
2. Select the right equipment for various scenarios based on specific operational needs and constraints.
3. Properly use rescue equipment.

4. Inspect and maintain non-entry rescue equipment.

Session Code: WE05

Session Title: Comparing Sludge Dehydrators

Date: Wednesday, February 19

Time: 8:00AM - 9:00AM

Speaker(s): Mehrzad Emanuel, Tsurumi Pump

Description:

This presentation will teach you how to identify the right dehydrator and learn how to differentiate the various types. During this session, the following will be covered: Sludge Treatment Process; Belt Press Dehydrators descriptions; Centrifuge Dehydrators descriptions; and Multi-disc Screw Press Dehydrators.

Learning Objectives:

1. Identify the various types of dehydrators.
2. Explain the challenges faced by different dehydrators.
3. Select the proper equipment for the challenges you face.
4. Implement proper usage of equipment.

Session Code: WE06

Session Title: Vacuum-Assisted Foam Fractioning for PFAS Removal in Water and Wastewater

Date: Wednesday, February 19

Time: 8:00AM - 9:00AM

Speaker(s): Mathieu Ouellette, Fournier Industries & Scott McKay, SMK Consulting

Description:

In this session, we'll delve into the innovative VAL (Vacuum-Assisted Foam Fractionation) technology, specifically designed for removing PFAS (Per- and Polyfluoroalkyl Substances) from contaminated water and wastewater. We'll explore the principles behind foam fractionation, its efficacy in PFAS removal, optimization strategies, and future research directions. Participants will acquire basic knowledge of how it works and what the outstanding features are.

Learning Objectives:

1. Describe how foam fractionation works and how it helps remove harmful PFAS from water.
2. Explore practical ways to make VAL technology work better for removing PFAS from water and wastewater.
3. Discuss why it's important to collect and concentrate PFAS for proper disposal.
4. Use simple explanations to understand how VAL technology can be adjusted to remove more PFAS from different kinds of water.

Session Code: WE07

Session Title: Empowering Leadership: Unleashing a Resilient Culture of Ownership and Accountability

Date: Wednesday, February 19

Time: 9:30AM - 10:30AM

Speaker(s): David Suson, Proliance Group LLC

Description:

Bouncing back from adversity, working better together, and taking ownership for one's actions and behaviors. The key? Ownership and accountability. However, your team is diverse, both in representation and personalities. While diversity is what we need, it can lead to friction within your team. By creating a culture where individuals want to help others succeed, your team will better understand that when the team wins, they win. Learn how to lead with inclusion to inspire, motivate, engage and attract new employees. Join us and learn how to get everyone working together while taking personal responsibility for their actions.

Learning Objectives:

1. Apply the 3 keys to creating personal accountability.
2. Use a powerful yet simple process to increase engagement, teamwork and loyalty.
3. Easily integrate this process with diversity and inclusion programs.
4. Implement new strategies to make change and drive performance and learn why change is so difficult.

Session Code: WE08

Session Title: Practical Tips for Reducing Non-Revenue Producing Water Loss

Date: Wednesday, February 19

Time: 9:30AM - 10:30AM

Speaker(s): Mark Wade, BlueWater Solutions Group, Inc.

Description:

This presentation will focus on the challenges that many water utilities face regarding non-revenue producing water loss (NRPWL) in water distribution and conveyance systems (both big and small). It will begin with a brief but informative overview of what NRPWL really is at its core, and how it occurs in aging infrastructure. This will lead into a discussion and overview of technologies that can be used and are available (including those that have recently been introduced into the commercial marketplace). There will be slides showing comparisons for each technology introduced (example would be those systems that can be used to locate, identify, and characterize system "leaks"). The summary portion of the presentation will briefly show how a business plan can be created to deal with the solutions to reduce NRPWL year-by-year.

Learning Objectives:

1. Define what NRPWL is, how it happens over time, and what water utilities need to measure its impact on costs associated with operating these systems day-to-day.
2. Determine if, indeed, the city or water utility does need to focus on a NRPWL program and the relative cost impacts of implementing such a program.
3. Discuss the tools and technologies used to measure system water losses at their source and quantity this information into a manageable database.
4. Identify the initial cost-impacts of starting up such a program and what is needed to plug it into a yearly preventative maintenance program (PMP).

Session Code: WE09

Session Title: Hearing Protection for Water and Wastewater Professionals

Date: Wednesday, February 19

Time: 9:30AM - 10:30AM

Speaker(s): Dennis Pivin, NASSCO

Description:

Learn the various types of PPE used when hearing protection is needed for workers in the plumbing and sewer industry. This session will help attendees understand when hearing protection is needed, and then use a hands-on explanation of the various types of hearing protection to demonstrate how to wear them properly.

Learning Objectives:

1. Explain the basic understanding of when hearing protection is needed when working with equipment in typical plumbing and sewer applications.
2. Compare different types of hearing protection.
3. Correctly wear and use hearing protection in the field.

Session Code: WE10

Session Title: Understanding Pressure Loss Due to Hose Length When Using Rotation Nozzles

Date: Wednesday, February 19

Time: 9:30AM - 10:30AM

Speaker(s): Rusty Nezat, Nezat Training and Consulting, Inc. & Shawn Lange, StoneAge Tools

Description:

This session will inform sewer cleaning operators how the length of their high-pressure hose affects the overall performance of the sewer cleaning nozzle and its ability to remove debris, grease, and roots from sewer lines. The following factors will be discussed: 1. Pump configurations regarding GPM, pressure ratings and pressure regulators. 2. How the size and length of the sewer hose affects the flow and pressure of high-pressure water as it exits the sewer hose. 3. Pressure losses based upon various hose use situations. Performance of the rotation nozzle will also be discussed. We will examine how to achieve maximum nozzle performance, such as rotation speed of the nozzle, determining correct orifice size, and travel speed of the nozzle. This information will be presented through charts, graphs and video-based media and pictures. Testing of the physics presented in this presentation will be demonstrated through video captured during live field demonstrations.

Learning Objectives:

1. Discuss proper use and maintenance of rotation nozzles.
2. Apply the information to determine if your rotation nozzle is working properly.
3. Determine the proper orifice to use in a rotation nozzle for maximum performance.
4. Apply the information to determine approximate pressure loss due to the length of sewer hose in use during the cleaning process.

Session Code: WE11

Session Title: Lessons Learned from Relining and Repairing Several Hundred Sewer Laterals Using UV CIPP Technology in Milwaukee, WI

Date: Wednesday, February 19

Time: 9:30AM - 10:30AM

Speaker(s): Erik Ulvog, Sewer Ninjas

Description:

This session will focus on lessons learned and best practices for UV CIPP sewer relining. The session will also present case studies to illustrate difficulties encountered and solutions used to overcome challenges.

Learning Objectives:

1. Explain how UV CIPP technology works.
2. Discuss the benefits and disadvantages of UV CIPP technology.
3. Know how to properly assess a sewer lateral and building for potential UV CIPP relining.
4. Apply best practices to ensure a successful UV CIPP relining project, including proper equipment, materials, safety protocols, wetting out liners, curing and quality control.

Session Code: WE12

Session Title: Next Gen Septage Treatment: Advancing Profitability Through Innovation

Date: Wednesday, February 19

Time: 9:30AM - 10:30AM

Speaker(s): Mathieu Ouellette, Fournier Industries & Scott McKay, SMK Consulting

Description:

This session promises attendees a deep dive into the essentials of septage receiving and treatment, all with an eye toward maximizing revenue. Delving into critical topics such as screening, dewatering, wastewater treatment, and solids management, the session prioritizes strategies for minimizing both labor and consumables. Tailored to benefit septage treatment entrepreneurs, managers, operators, and anyone intrigued by the technical intricacies of septage treatment processes, this session offers invaluable insights for all levels of expertise. Segments covered include: overview of septage disposal regulations and trends; septage screening; solids dewatering; wastewater treatment; and residual solids management.

Learning Objectives:

1. Identify the primary pollutants found in septage and establish suitable abatement goals.
2. Outline the essential elements comprising a septage treatment process sequence and assess their operational expenses.
3. Evaluate the pros and cons of pre-treating raw septage through dewatering before entering wastewater treatment.
4. Examine how process design choices influence the operational expenditure of a septage receiving and treatment facility.

Session Code: GEN (GENERAL SESSION)

Session Title: Securing the Flow: Safeguarding Our Water Infrastructure Against Cyber Threats in the Digital Age

Date: Wednesday, February 19

Time: 11:00AM - 12:00PM

Speaker(s): Robert Siciliano, Safr.Me

Description:

In this General Session, Robert Siciliano will discuss the most common and emerging cyber threats targeting water resource management systems, and their potential impacts, including service disruptions, contamination risks, and financial losses. You will also learn best practices for securing water infrastructure, including network segmentation, access control, and regular system updates. The latest technologies and tools available for monitoring and defending against cyber threats will be discussed, and you will walk away with steps to design and implement an incident response plan.

Learning Objectives:

1. Identify common and emerging cyber threats targeting water resource management systems.

2. Discuss the potential impacts of cyber attacks on water infrastructure.
3. Apply best practices for securing water infrastructure.
4. Utilize the latest technologies and tools available for monitoring and defending against cyber threats.
5. Design and implement an incident response plan.
6. Conduct risk assessments and vulnerability analyses to prioritize cybersecurity efforts.

Session Code: WE13

Session Title: Transforming Productivity: Key Mindset Strategies to Increase Your Business Capacity

Date: Wednesday, February 19

Time: 1:00PM - 2:00PM

Speaker(s): Matthew Wied, A-1 Testing/ Maintenance, Inc.

Description:

There are practical ways as a small business owner to avoid burnout, transform your capacity, increase productivity, accomplish more, and grow your revenue, without just ramping up work hours or giving more of your own personal time to your company. How can so many other business owners be so productive, manage so many things, and seem to always be successful in every area of life? And if this is true, why do I feel overwhelmed and stretched so thin, running a small business in the waste water industry? In this session, we are going to evaluate the way we approach and think about things in order to provide you with new tools and a paradigm shift to transform your capacity to be able to accomplish more than you ever dreamed possible! We need to get clarity of mind on what is it we want to accomplish. We need to define what success looks like for each of us. Steps covered include: Getting clear on your vision (what does success look like?); Changing the way we evaluate productivity and what it means to be a high performer; Addressing limiting beliefs, which reinforce and prevent you from becoming and doing all you are truly capable of; Rewiring beliefs about what is possible; and shifting to a mindset of dreaming and scheming to rocket our personal and professional results to heights we never dreamed possible.

Learning Objectives:

1. Create goals that are measurable and greater than your current goals/vision.
2. Recognize limiting beliefs and how they have hindered your business growth and development.
3. Creatively apply new ways to reverse engineer your goals to make them achievable.
4. Identify different personalities, strengths and weaknesses in yourself and others in the workplace.

Session Code: WE14

Session Title: Wastewater Flows, Loads and Related Considerations

Date: Wednesday, February 19

Time: 1:00PM - 2:00PM

Speaker(s): Jonathan Kaiser, Infiltrator Water Technologies & Ashley Donnelly, Infiltrator Water Technologies

Description:

This presentation will review wastewater treatment considerations, accounting for varying hydraulic flows, organic loads, and other related considerations. The impact of these critical variables on wastewater treatment systems will be analyzed through design examples and case studies. Onsite wastewater treatment system component designs considered in this presentation include the septic tank, pump tank, treatment tank, and drainfield. Innovative and specific solutions to potentially challenging site conditions will be discussed.

Learning Objectives:

1. Explain how to identify critical parameters of wastewater influent for proper decentralized treatment system design.
2. Classify different facility types into typical influent strengths.
3. Identify the difference between hydraulic loading and how that affects decentralized treatment system design through the design of primary treatment tanks, secondary treatment tanks, and drainfields.
4. Identify design solutions for varying hydraulic and organic loads.

Session Code: WE15**Session Title:** Trenching and Shoring Safety for Plumbers, Contractors and Municipalities**Date:** Wednesday, February 19**Time:** 1:00PM - 2:00PM**Speaker(s):** Jerry Weimer, Jerry Weimer Consulting & Dennis Pivin, NASSCO**Description:**

In this session, we will discuss the correct Trenching and Shoring required for excavations. We will cover depths, shoring, shielding and benching, as well as rules for classifying soils and correct Sloping, Shielding and Shoring, with pictures of good and bad trenching.

Learning Objectives:

1. Explain the classifications of soil.
2. Adhere to industry rules for Trenching Safety.
3. Identify the different types of Protection systems.
- 4 Differentiate between Sloping, Shielding, and Shoring.

Session Code: WE16**Session Title:** Don't Blow the Commode**Date:** Wednesday, February 19**Time:** 1:00PM - 2:00PM**Speaker(s):** Ed Fitzgerald, Ed Fitzgerald Consulting**Description:**

Did you know that toilets can explode during improper mainline sewer cleaning? In this session, attendees will learn why this happens and how to avoid it! Our expert trainer will offer real-world examples of preventative maintenance (including spray patterns, reduction of GPM, and more) all while discussing past and present operator codes.

Learning Objectives:

1. Implement proper techniques of pipe cleaning.
2. Define the role of airflow in the cleaning process.
3. Identify venting systems on homes.
4. Select the proper nozzles for the job.

Session Code: WE17**Session Title:** Proyectos y estudios de caso de rehabilitación de tuberías de aguas residuales y pluviales en Sudamérica (presented in Spanish)**Date:** Wednesday, February 19**Time:** 1:00PM - 2:00PM

Speaker(s): Miguel Freire, IMPREG Americas

Description:

Esta presentación esbozará y recorrerá los procesos de identificación de los principales proyectos de rehabilitación de alcantarillado pluvial y sanitario en Sudamérica; la creación de asociaciones sólidas con los municipios y las comunidades que representan mediante la comunicación efectiva de las ventajas económicas y medioambientales inmediatas y a largo plazo de las tecnologías sin zanjas; y la realización de proyectos con éxito mediante la planificación de los retos que puedan surgir debido a los largos plazos de entrega de los materiales, las diferencias horarias y lingüísticas entre proveedores e instaladores, etc. Se destacarán estudios de casos de Colombia, Bolivia y Ecuador.

This presentation will outline and walk through the processes of identifying major storm and sanitary sewer rehabilitation projects in South America; building robust partnerships with municipalities and the communities they represent by effectively communicating the immediate and long-term economic and environmental advantages of trenchless technologies; and orchestrating successful project delivery by planning for challenges that may arise from long lead times for materials, time zone and language differences between suppliers and installers, etc. Case studies from Colombia, Bolivia, and Ecuador will be highlighted.

Learning Objectives:

1. Revisar el estado actual de la adaptación de las tecnologías sin zanja para la rehabilitación de la infraestructura de alcantarillado pluvial y sanitario en diversos mercados de Sudamérica.
 2. Discutir cómo asociarse eficazmente con los municipios para grandes proyectos de rehabilitación de infraestructuras de aguas residuales en Sudamérica y explicar el valor de coste inmediato y a largo plazo de las soluciones sin zanja.
 3. Destacar las mejores prácticas que condujeron a la entrega exitosa de soluciones sin zanja en Colombia, Bolivia y Ecuador, con énfasis en las instalaciones UV CIPP en los centros urbanos.
-
1. Review the current state of the adaption of trenchless technologies for rehabilitation of storm and sanitary sewer infrastructure in various markets within South America.
 2. Discuss how to effectively partner with municipalities for major wastewater infrastructure rehabilitation projects in South America, and explain the immediate and long-term cost value of trenchless solutions.
 3. Highlight best practices which led to the successful delivery of trenchless solutions in Colombia, Bolivia, and Ecuador, with an emphasis on UV CIPP installations in urban centers.

Session Code: WE18

Session Title: Comparison of Effectiveness and Costs of Electrocoagulation and Chemicals in Various Water Treatments

Date: Wednesday, February 19

Time: 1:00PM - 2:00PM

Speaker(s): Lockett Wood, PhD, Avid Water Technology, LLC

Description:

Many water treatments require the precipitation of the contaminants in the water. For these applications, electrocoagulation competes with chemicals such as metal salts (e.g., alum, ferric chloride, etc) and lime. Both technologies have advantages and disadvantages for particular applications. In developing a water treatment solution, it is important to understand the relative pros, cons and costs of the specific technology chosen. In this session, examples of acid mine drainage and landfill leachate will be compared. Ways to analyze the approach, results, costs, and recommendations about the appropriate solution will be provided.

Learning Objectives:

1. Differentiate the chemistry of electrocoagulation and metal salts in water treatment.
2. Explain the relative effectiveness of using chemicals or electrocoagulation.
3. Compare dose levels of coagulant between electrocoagulation and chemicals.
4. Describe examples of life cycle costs of the two approaches.

Session Code: WE19

Session Title: Update on PFAS Regulations: What They Mean for Wastewater Professionals

Date: Wednesday, February 19

Time: 2:30PM - 3:30PM

Speaker(s): TBD

Description:

Explore the latest updates on the EPA's PFAS regulations. Discover the implications of these regulations on wastewater treatment processes, compliance requirements, and operational strategies. Equip yourself with the knowledge and tools needed to navigate the evolving regulatory landscape and ensure effective management of PFAS contaminants.

Learning Objectives:

1. Discuss the EPA's new PFAS regulations, including key requirements and deadlines relevant to wastewater management.
2. Analyze how these regulations affect wastewater treatment processes, including necessary adjustments to procedures, technologies, and compliance measures.
3. Develop strategies and best practices for meeting the new PFAS standards, including methods for monitoring, reporting, and mitigating PFAS contamination in wastewater systems.

Session Code: WE20

Session Title: Wastewater Pump Basics: Sizing, Selection and Rules of Thumb

Date: Wednesday, February 19

Time: 2:30PM - 3:30PM

Speaker(s): Jeff Rook, Goulds Water Technology, Xylem

Description:

This session will focus on the various types of wastewater pumps, where they are used, and how to size and select the proper pump, basin and panel for the application. We will discuss some basic "rules of thumb" when sizing and selecting a pump, and troubleshooting tips for real world applications.

Learning Objectives:

1. Explain when to use a sump pump vs. an effluent pump vs. a sewage pump vs. a grinder pump.
2. Discuss the advantages of the different impeller and seal types within a wastewater pump.
3. Explain how to size the proper pump based on HP, performance and solids handling.
4. Discuss the pitfalls of incorrectly sizing pumps and basins, which leads to properly troubleshooting existing installations.

Session Code: WE21

Session Title: Defeating Your Jetter's Enemies

Date: Wednesday, February 19

Time: 2:30PM - 3:30PM

Speaker(s): Steve "Jonesie" Jones, JETTERS NORTHWEST

Description:

Even the best sewer and drain Jetting equipment has “enemies” that will attack your Hydro-Jetter's cleaning power – or even put your Jetter out of business! In this session, we will identify several of these enemies – both visible and unseen – that can reduce your Jetter's Water-Flow, Pressure, Cleaning-Efficiency, and Life-Span. We'll also present tactics to defeat these enemies to help keep your Hydro-Jettters healthy and productive, and then finish the session with time for Q&A.

Learning Objectives:

1. Identify VISIBLE enemies attacking your Jetter's cleaning-power.
2. Identify UNSEEN enemies attacking your Jetter's cleaning-power.
3. Apply tactics to defeat these enemies & keep your Jetter healthy.
4. Discuss how it all relates to Jetting-Efficiency and Safety.

Session Code: WE22

Session Title: Styrene-Free and Structural Fold and Form PVC Liners for Sanitary and Storm Sewer Rehabilitation

Date: Wednesday, February 19

Time: 2:30PM - 3:30PM

Speaker(s): David Ohayon, P.E., Warrior Trenchless Solutions

Description:

Fold and Form (F&F) PVC Liners have been in use globally for over 30 years and have become a well-accepted rehabilitation method for sanitary and storm sewer collection systems, as well as road and rail network drainage culverts. They have proven to be more reliable and consistent from a QA/QC standpoint, due to the fact they are extruded in manufacturing plants according to rigorous ASTM standards (F1871/F1867 and F1504/F1947). This means that liner mechanical properties are known AHEAD of installation, and the finished liners are significantly less impacted by on-site conditions, variables and workmanship, as opposed to CIPP and other rehabilitation methods. Given the significant emphasis on Styrene mitigation in sewer rehabilitation, F&F PVC liners offer an environmentally friendly alternative to CIPP. Since these liners do not contain styrene, there is no release of odors or flushing of chemicals of any kind during installation. This makes this technology the preferred option for environmentally sensitive locations like roadway stormwater drainage, as well as densely populated urban sanitary sewer networks. F&F PVC liners meet structural design requirements, and provide a minimum 50-year service life, corrosion resistance to hydrogen sulfide and other chemicals, abrasion resistance and low friction for improved hydraulic flow. Several case studies on current projects in the USA, Canada, Australia and other international locations will be discussed as part of the presentation.

Learning Objectives:

1. Explain to clients (private and public asset owners) the similarities and differences between F&F PVC lining and CIPP rehabilitation.
2. Discuss the significant advantage that PVC liners offer for rehabilitation in terms of elimination of styrene exposure both airborne and in the runoff from installation.
3. Provide rehabilitation crews performing the work with a safer and easier installation method and working environment, without exposure to dangerous chemicals or need for specialized PPE on site.
4. Discuss how using a factory made PVC liner provides consistent, repeatable and successful results, while significantly mitigating financial and operational risks and consequences of failure.

Session Code: WE23

Session Title: Revolutionary Woman: How to Win in a World That's Set Up for You to Lose

Date: Wednesday, February 19

Time: 2:30PM - 3:30PM

Speaker(s): Shereen Thor, Thor International Inc.

Description:

The gender pay gap is a symptom of the fact that we are working in a system that is made by men for men. There was a time in Ancient Egypt when women enjoyed more rights than modern women today. If it happened once, it can happen again. We are in an unprecedented time with new tools like AI, and we can revolutionize our lives and society to create the change we wish to see in the world.

Learning Objectives:

1. Implement Yale's eight essential happiness techniques.
2. Develop a leadership mindset when it comes to your well-being.
3. Gain insight into the ROI of happiness in the workplace.
4. Utilize the extra time provided by AI to improve culture.
5. Avoid burnout.

Session Code: WWEd1 (WORKSHOP)

Session Title: Incident Command System Training: When the &^%\$ Hits YOUR Community Water and Wastewater Services, Who is Going to Respond?

Date: Wednesday, February 19

Time: 9:00AM - 4:00PM

Speaker(s): Valerie Jenkinson, Operators Without Borders & Carl Yates, Yates Water Management & Alberto Burrero, Vancouver Fire & Rescue Services

Description:

Do you have an emergency response team? Who is on it? Who should be on it? Gather your team and come learn from the very best who've been there and done this more times than they care to remember. This workshop will be taught by experts from Operators Without Borders who will introduce you and your team to the formal creation of an Incident Command Structure. An 'incident' can be something as mundane as a water main break, OR run the gamut from a full blown natural disaster, such as a tornado or wild fire, to a dam break or major chemical spill that impacts your water and wastewater systems. Response requires the coordination of multiple agencies and may cross multiple governmental boundaries. Before the inevitable happens, regardless of the size of your community, this is your opportunity to learn how to get your &^%\$ together. Bring your team and go home with a plan. Participants will also have the opportunity to register for the ICS Level 100 online exam.

Learning Objectives:

1. Explain the ICS framework, including its key components, roles, and responsibilities, to effectively manage and coordinate emergency responses within their organization and community.
2. Identify the appropriate personnel for their emergency response team, ensuring that each member's skills and responsibilities align with the needs of various types of incidents.
3. Create or refine their organization's emergency response plan, incorporating best practices for handling a range of scenarios from minor incidents to major disasters, and ensuring cross-agency coordination.
4. Apply their learning to register to sit for the ICS Level 100 exam.

Session Code: NAWT (WORKSHOP)

Session Title: NAWT Vacuum Truck Technician Training Course

Date: Wednesday, February 19

Time: 8:00Am - 5:00PM

Speaker(s): TBD

Description:

The Vacuum Truck Technician training course is targeted to those who own or operate a vacuum truck which is used to clean septic tanks, aerobic treatment units, holding tanks, or grease traps. It is designed specifically for owners and employees who may just be starting in business and need a solid base of information to work with to perform their daily tasks. At the same time, this one-day training provides a good refresher and overview even for experienced operators.

Learning Objectives:

1. Review components of a vacuum pump truck, drive, and control mechanisms
2. Explain the science of vacuum and pressurization, and basic pump truck operation
3. Discuss governmental regulations regarding pumping and disposing of liquid waste
4. Discuss safety and emergency response, and manifest and reporting

Session Code: TH01

Session Title: Reducing Hydrogen Sulfide Production Within Municipal Collection Systems Using Bioaugmentation

Date: Thursday, February 20

Time: 8:00AM - 9:00AM

Speaker(s): Josiah Menako, Microbial Discovery Group

Description:

Hydrogen sulfide (H₂S) poses significant problems to municipal collections systems due to its malodorous smell, danger to human health and corrosive effect on infrastructure. Application of various chemical treatments such as precipitants, oxidizers, and nitrates can be used to mitigate H₂S; however, these options require significant annual costs and often do not address the root of the problem. Sulfate reducing bacteria (SRB) utilize sulfate to generate energy and expel H₂S as a byproduct of respiration. SRB live primarily in biofilms and within anaerobic environments which can be intensified by the buildup of fats, oils, and grease (FOG). In this session, we'll discuss why bioaugmentation is an effective treatment option that prevents H₂S from forming by removing sources of sulfate, food, and habitat that SRB need to thrive. We will cover real-world applications, including twenty municipal systems that were treated with a Bacillus-based bioaugmentation product for H₂S issues, ranging from nuisance odor to extensive corrosive damage and extreme health hazards. Treatment resulted in H₂S reduction in 90% of systems with an average H₂S reduction of 68% amongst successful applications. Results show that bioaugmentation products reliably and significantly lower H₂S levels in collection systems.

Learning Objectives:

1. Explain how hydrogen sulfide (H₂S) is generated, its variables, dangers, economics tied to its corrosive damage, and mitigation costs.
2. Identify technologies used to mitigate H₂S, how they work, shortcomings, and how bioaugmentation can be utilized.
3. Discuss application case studies with significant H₂S challenges and how they were mitigated.

Session Code: TH02

Session Title: Easy Software Tools to Ensure Profitable Pipe Lining

Date: Thursday, February 20

Time: 8:00AM - 9:00AM

Speaker(s): Ray Michaels, Maui Plumbing & Grant Whittle, NuFlow & Tom Bowman, NuFlow

Description:

As pipe rehabilitation projects become increasingly complex, project estimation and project management become increasingly challenging. Software tools are commercially available and are being used more frequently to help systematize processes and to provide better management of pipe rehabilitation project risks. Especially with large and complex plumbing systems, the ability to easily document the composition and intricacy of the piping network greatly simplifies the analysis that is required. Back of the napkin analysis and basic rules of thumb pertaining to per-foot costing become increasingly inadequate as project complexity increases. As an example, the labor differences between working in a hospital versus within a high-rise condominium are quite significant. The risks associated with working inside of an industrial food & beverage facility are considerably different from a retail restaurant. Without defining the relevant project costs & risk differences, appropriately priced quotations can be challenging to achieve. In this session, we will explore modern software tools that are being leveraged to rapidly define exceptionally detailed Scopes of Work to quote projects more accurately with proper consideration of all associated costs. With project requirements better defined and more accurately priced, intended margins are more consistently achieved. With the software systematization, the experience and expertise requirements are lowered for properly estimating complex projects. Accordingly, pricing mistakes become far less likely even in the hands of less experienced staff. Project Management is also simplified through these software tools as deliverables expectations are better defined and managed. This simplifies discussions around any necessary scope changes from unknown variables discovered as the project progresses. The Project Manager can also use the software tools to establish performance expectations and goals upfront, and more readily monitor progress to keep project teams and any subcontractors accountable and on schedule. As pipe rehabilitation contractors expand their operations, these easy-to-use software tools provide the data required to more accurately forecast financial and manpower needs to understand their “bandwidth” for growth. Growth can be accelerated as experience and expertise requirements are lowered with the assistance of reliable knowledge transfer through the software tools. And with the assistance of historical project data to refine the project estimation, planning, and management processes, quotations increasingly reflect reality and Project Managers have the data they need to keep projects on track. In this session, experiences will be shared with the usage of such software systems available on the market.

Learning Objectives:

1. Apply modern software tools to improve the accuracy of quotations on increasingly complex pipe rehabilitation projects.
2. Utilize modern software tools to improve project management of complex pipe rehabilitation projects and better coordinate the work of crews and subcontractors to keep projects on schedule and profitable.
3. Apply modern software tools to improve communications with and manage expectations of property owners and residents during complex pipe rehabilitation projects.
4. Leverage modern software tools to better forecast and manage the growth of their pipe rehabilitation business.

Session Code: TH03

Session Title: Quality Control and Quality Assurance for Storm Water Drainage Systems

Date: Thursday, February 20

Time: 8:00AM - 9:00AM

Speaker(s): Leo Fleckenstein, Spartan Construction

Description:

This presentation will address the latest inspection technology and how it is being implemented by DOTs for better quality control and quality assurance practices. The use of dual laser diodes and laser profiling systems being utilized with newer inspection cameras is providing significantly more information than video systems alone. The technology is taking the guess work out of video inspections and allowing the owners to set specifications around the additional information that is provided. The Ohio DOT is currently one of the most aggressive storm water inspections in the industry. ODOT requires a pipe installation plan in which the pipe manufacturer must provide allowable limits for joint separations. With the use of parallel laser diodes, the inspection companies are able to provide accurate joint separations measurements, allowing the contractor to fail or pass each and every joint. In addition, the diodes can also provide accurate information on crack widths in which a 0.1-crack in a RCP would require repair or removal. In addition, the laser profiling systems being utilized can accurately provide a vertical profile/deflection plot of the entire pipeline, indicating areas that have passed or areas that might have failed. The ODOT 611 specification is widely being adopted by other agencies across the State. Since the adoption of ODOT's 611 specification, there has been a significant improvement by the contractors and a significant increase in performance. The presentation will also address the cost to the contractor for improper installation, necessary repair methods or removal, and the long-term benefits to the owner through more aggressive specifications.

Learning Objectives:

1. Explain how this new technology is being implemented, and the improvements it provides vs standard video inspection.
2. Discuss how these techniques are currently being utilized to provide better information and improve specifications and inspections.
3. Utilize these technologies to improve quality control, from the manufacturer level to the installers/contractors.

Session Code: TH04

Session Title: Revolutionizing Water Infrastructure Management: Unleashing the Power of GIS in CCTV Pipe Inspection Data Integration

Date: Thursday, February 20

Time: 9:30AM - 10:30AM

Speaker(s): Mark Grabowski, ITpipes & Finn Swann, Esri

Description:

In this transformative session, Mark Grabowski from ITpipes and Finn Swann of Esri will unveil how integrating GIS with CCTV pipe inspection data revolutionizes utility management and planning. Our focus will bridge the gap between traditional inspection methodologies and the dynamic, spatial analysis capabilities offered by GIS. We'll delve into best practices for leveraging GIS to enhance the value of CCTV inspection data, showcasing real-world applications that have led to improved decision-making, efficiency, and cost savings for water and wastewater utilities. Key areas covered include the synchronization of CCTV data with GIS to create a comprehensive, visual understanding of infrastructure conditions, enabling utilities to prioritize maintenance and capital improvement projects effectively. Attendees will learn how to utilize GIS for identifying problem areas, predicting potential failures, and optimizing repair schedules. We'll also explore standards for data collection, storage, and analysis that ensure the compatibility and usefulness of inspection data within GIS platforms. This session is tailored for utility managers, GIS specialists, and field operation teams keen on harnessing the power of their data to drive better outcomes. By the end, participants will be equipped with the knowledge to implement a GIS-integrated inspection strategy that transforms raw data into actionable intelligence, significantly multiplying the value of their pipe inspection efforts. Join us to discover how your organization can benefit from the synergy of CCTV pipe inspection and GIS technology.

Learning Objectives:

1. Explain the process of integrating CCTV pipe inspection data with GIS systems to enhance infrastructure management and planning efforts within water and wastewater utilities.
2. Discuss the advantages of leveraging GIS technology to augment the value of pipe inspection data, including improved accuracy in maintenance prioritization and resource allocation.
3. Apply strategies for synchronizing and analyzing spatial and inspection data to identify critical areas for intervention, streamline operations, and support proactive infrastructure maintenance.
4. Implement best practices and standards for data management that ensure seamless compatibility between CCTV inspection data and GIS platforms, facilitating more informed decision-making and operational efficiency.

Session Code: TH05

Session Title: Pumping Hydraulics Principles

Date: Thursday, February 20

Time: 9:30AM - 10:30AM

Speaker(s): Chris Suomi, Gorman-Rupp Pumps

Description:

The purpose of this session will be to discuss pumping hydraulic principles. There will be a discussion of basic hydraulics and a description on how to read pump curves and gauges on a live demonstration unit. The demo unit for the training utilizes a working pump with a lexan face so the interior of the pump can be viewed. Common pump, hydraulics and system troubleshooting questions will be discussed, such as: What is cavitation? What is Net Positive Suction Head (NPSH), and why is it important to your pumps?

Learning Objectives:

1. Explain basic centrifugal principles.
2. Read gauges and be able to apply them on a centrifugal pump curve.
3. Discuss pump cavitation, along with its causes and how to fix it.
4. Explain the importance of net positive suction head as it applies to the operation of a pump.

Session Code: TH06

Session Title: Moonlight Beach Triple Barrel 72" CMP Pipe Arch Culvert Rehabilitation: A Case Study

Date: Thursday, February 20

Time: 9:30AM - 10:30AM

Speaker(s): Jennifer Sherman, IMPREG LLC

Description:

The Moonlight Beach Triple Barrel 72" CMP Pipe Arch Culvert Rehabilitation project is likely the largest single-location UV CIPP installation ever undertaken, restoring three severely degraded 285-foot 72" diameter stormwater culverts with approximately 90,000 lbs of liner by weight over the course of three days in December 2023. A review of this project emphasizes a number of industry best practices pertaining to project preparation and managing rehabilitation environments in both protected coastal ecosystems and open access public spaces. The project took place at Moonlight State Beach in Encinitas, California on a run of three pipe arch culverts conveying stormwater from the primary evacuation channel in the City of Encinitas underneath a beachfront thoroughfare into the ocean. The beachfront area included parking, public beachfront access, and beach volleyball courts. Engineers had to account for saltwater corrosion, severe degradation and voids in the host pipe, and moderate pipe bends in the liner design, as well as maximizing flow capacity in the rehabilitated pipe to minimize the risk of mudslides in the drought-prone area during critical storm events. Project managers had to contend with a finite window of opportunity during which work could take place with risk of ocean tides disrupting the project footprint during high tide. Additionally, the unique location, coastal ecosystem protections, and

proximity to public access recreation area mandated a remarkably small jobsite footprint in proportion to the scale of the rehabilitation works.

Learning Objectives:

1. Explain how to measure and document diameter changes and wear patterns in a coastal stormwater pipe.
2. Implement lessons learned to better project plan for open access public space rehabilitation.
3. Identify ecologically sensible pipe rehabilitation strategies in drought areas or project locations where post rehabilitation cure-water collection and treatment is impractical.
4. Examine unique rehabilitation challenges from this project setting and the benefits and risks of utilizing different equipment and rehabilitation techniques.

Session Code: TH07

Session Title: Streamlining Sewer Inspection and Cleaning Practices: Solving Labor and Budget Challenges

Date: Thursday, February 20

Time: 11:00AM - 12:00PM

Speaker(s): Samuel Lambert, Can-Ex Technologies, powered by Can-Explore

Description:

In this session, attendees will discover the secrets to minimizing human and material resources while maximizing sewer inspection data collection and processing. Key aspects that will be discussed include: Essential steps for efficient pipe cleaning and inspection (everything from the initial kick-off and setting up markers for water fill-up and waste management, to delivering final reports); why coding in the office rather than in the truck is the best workflow possible; how to use readily available technologies on the market as your ultimate sewer life hacks, including automated manhole geolocation, simplified pipe-connection view capturing techniques; and more. Attendees will also learn strategies to prevent unexpected costs associated with pipe cleaning by using pole cameras. The synergy between inspection crawlers and nozzle cameras and understanding how they complement each other and how to leverage the strengths of each device will be discussed. The session will conclude with actual data and estimates demonstrating significant time and cost savings. This session will not only present new strategies and methods, but will highlight how transforming the workflow for sewer inspections can enhance resilience and adaptability amid ongoing challenges of municipal budget constraints and labor shortages. Join us to learn how reshaping your approach to sewer management can lead to more efficient and sustainable urban infrastructure practices.

Learning Objectives:

1. Implement new techniques to tackle sewer cleaning and inspection more efficiently.
2. Discuss current technologies that can save time and resources during the sewer inspection and cleaning process.
3. Transform the workflow for sewer inspections to enhance resiliency amid budget constraints and labor shortages.

Session Code: TH08

Session Title: How to Get More Out of Your Service Plumbing Calls: A Simple Guide to Increasing Your Average Ticket

Date: Thursday, February 20

Time: 11:00AM - 12:00PM

Speaker(s): Eric Brockmire, The Honest Water Filter

Description:

Increasing the average ticket is the goal of every plumbing company. Join us as we discuss the blueprint and proven strategies for how to easily implement, nurture and increase your average tickets. We will discuss best practices relating to the service call process, including why to do safety inspections, what an upsell is, what products to consider, and how to make it simple so your plumbers can embrace it.

Learning Objectives:

1. Enhance their service call process.
2. Identify high-quality products and services to offer.
3. Apply techniques to build technicians' confidence.

Session Code: TH09

Session Title: Operational Insights into the Multioxidative System

Date: Thursday, February 20

Time: 11:00AM - 12:00PM

Speaker(s): Egnaldo Santos, Ecosign

Description:

In this session, we'll explore the Multioxidative System – an innovative solution integrating Advanced Oxidation Process (AOP) technology for organic and recalcitrant compound removal in water treatment. We will discuss how this system generates hydroxyl radicals, highly oxidizing agents that rapidly degrade pollutants, leading to harmless by-products like CO₂ and H₂O. Key points covered include: AOP Technology - Understand the generation and role of hydroxyl radicals in efficient pollutant degradation within minutes; System Benefits - Discover the modular design, configuration flexibility, and flow split options enhancing performance and reducing Chemical Oxygen Demand (COD) and Biochemical Oxygen Demand (BOD) levels; Environmental Impact - Explore how the system avoids generating harmful by-products like organochlorines and trihalomethanes, ensuring compliance with environmental standards; Complex Compound Oxidation - Learn about the system's capability in oxidizing complex elements such as phenols, sulfides, and cyanides, crucial for water reuse projects; Operational Efficiency - Explore the compact, personalized design ensuring safe operation, without generating solid waste or sludge, relieving overloaded systems. Join us to delve into the technology, benefits, and applications of the Multioxidative System, a fundamental solution in addressing water treatment challenges and enabling sustainable water reuse initiatives.

Learning Objectives:

1. Discuss the key benefits of the Multioxidative System, including its modular design, configuration flexibility, and performance enhancement, enabling the evaluation of its suitability for water treatment needs.
2. Describe how the Multioxidative System reduces DQO (Chemical Oxygen Demand) and DBO (Biochemical Oxygen Demand), leading to more cost-effective and efficient water treatment processes.
3. Discuss the system's capability to degrade complex and recalcitrant compounds, ensuring safe operation and environmental compliance while enabling water reuse initiatives.
4. Explore the operational advantages of the Multioxidative System, such as its compact and personalized design, absence of solid waste and sludge generation, and ability to relieve overloaded systems, empowering attendees to make informed decisions for sustainable water management strategies.

Session Code: WWEd2 (WORKSHOP)

Session Title: Disaster Response Interactive Workshop

Date: Thursday, February 20

Time: 9:00AM - 4:00PM

Speaker(s): Valerie Jenkinson, Operators Without Borders & Carl Yates, Yates Water Management & Alberto Burrero, Vancouver Fire & Rescue Services

Description:

Having spent the previous day learning how to create an Incident Command Structure, you will now be given an all-too-real scenario to respond to. Working as a team, you will determine what steps to take for various scenarios. Examples include: a major lift station component is stuck wide open and the vendor is telling you it will be 3 weeks before they can get a replacement part; or, a truck hauling gasoline rolls over on the only bridge in and out of town, causing gas to leak into your water mains. Get your game face on - your community is depending on you.

Learning Objectives:

1. Implement the Incident Command Structure by assigning roles, managing resources, and coordinating response efforts effectively during simulated emergency scenarios.
2. Analyze and prioritize response strategies for various real-world emergency scenarios to mitigate impacts and ensure community safety.
3. Work collaboratively with team members to develop and execute response plans, ensuring clear communication and coordination among all stakeholders involved.
4. Adapt plans in real-time based on evolving scenarios and resource availability, demonstrating flexibility and problem-solving skills under pressure.

Session Code: TT01 (TECHNICAL TOUR)

Session Title: Wastewater Management at Lucas Oil Stadium: A Behind-the-Scenes Look

Date: Thursday, February 20

Time: 10:30AM - 11:30AM

Description:

For the first time, WWETT show attendees will have the exclusive opportunity to go behind the scenes of Lucas Oil Stadium and learn how this state-of-the-art facility manages water and wastewater for the millions of fans who walk through its doors each year. Join one of the stadium's Pipefitters on a walk-through of usually restricted areas, including the mechanical room, where you'll see what it takes to keep things flowing smoothly.

Session Code: TT02 (TECHNICAL TOUR)

Session Title: Carmel Wastewater Treatment Plant

Date: Thursday, February 20

Time: 9:15AM - 11:30AM

Description:

Attendees will tour the CAWD Wastewater Treatment Plant (WWTP), which has a permitted capacity of 3.0 million gallons per day (MGD) of dry weather flow. Current average dry weather flow (ADWF) is approximately 1.1 MGD, which represents 37% of the permitted capacity. Of the 1.1 MGD, approximately two-thirds is from CAWD customers and the remaining one-third is from Pebble Beach Community Service District customers.