

MONDAY PRE-CONFERENCE CLASSES	TOTAL CEUS 0.6 W/WW	AUGUST 23, 2021
<p>9:00 am – 4:00 pm</p> <p>Small Water System Training Course This course will cover the basics of water system operations. A review of the SDWA Amendments, the State Revolving Loan Fund, and security issues. Review of technical, managerial, and financial needs of a small system. <i>Tim Tice, OAWU</i> - 0.6 W CEUs ESAC #4328</p>	<p>9:00 am – 4:30 pm</p> <p>Effective Utility Management Participate in a workshop for success at your water and wastewater facility. Look at challenges such as aging infrastructure, growth, and adequate revenues that reflect true operational costs today and in the future. At this workshop, you will be involved in ten key management areas, assessing your strengths and weaknesses with a framework conducive of a well-rounded water and wastewater utility management approach.</p> <ul style="list-style-type: none"> • 9:00-10:30 (0.15) Review of the “Keys to Success” pertaining to leadership, strategy planning, organization structure and measurement with an on-going framework towards improvement for water and wastewater utilities. • 10:30-10:45 Break • 10:45-12:15 (0.15) Understanding the current conditions, providing a “ranking” order of attributes and deficiencies of 10 areas in your water and wastewater utility, which will allow for providing and implementing an improvement plan. • 12:15-1:15 Lunch Break • 1:15-3:15 (0.2) A look at the detail measurement of root causes in areas of under-performance and developing methods to reach the goals and timeframe associated with reaching the goal for your water and wastewater utility. • 3:15-3:30 Break • 3:30-4:30 (0.1) Water and wastewater operators and decision makers will use resource tools to define and select the best management practices for specific challenges are to mitigate concerns and position the utility for the future. <p><i>Scott Berry, OAWU</i> – 0.6 W/WW CEUs</p>	<p>9:00 am – 4:45 pm</p> <p>Cross Connection Specialist Update Obtain your Cross Connection Specialist updates and any updates on the cross connection program. <i>Garrett Yates, BMI</i> – 0.6 W CEUs ESAC #3388</p>

TUESDAY		AUGUST 24, 2021				
08:00 – 09:00 AM		Registration				
09:00 – 09:30 AM	0.05	Opening session: Your Future in Water and Wastewater Utility Leadership Building and influencing a capable, robust and trustworthy crew - preparing for replacement or succession with an honest plan. Jason Green, OAWU			W/WW	
09:30 – 10:45 AM	0.125	Legislative Update The latest issues of the State Legislature activities concerning water and wastewater utilities. Mark Landauer, SDAO, Jason Green, OAWU			W/WW	
10:45 – 11:00 AM		Break				
		Necanicum	Riverside A	Riverside B	Riverside C	Seaside A/B
11:00 – 12:00 PM	0.1	<p>Safety is no accident -- pump station safety and design Municipal utilities are made up of many different types of equipment that create safety concerns for operation, and wastewater collection systems are no different. This course will discuss the various types of equipment employed by wastewater collection systems and the inherent safety concerns related to their operation that must be considered during the design phase. The discussion will focus on operator safety while working with equipment within wet wells, dry pits, valve vaults, or above grade enclosures. The course will demonstrate how to identify the safety hazards of different types of collection system and the safety steps and procedures that need to be addressed when operating different types of equipment. Safety concerns covered will range from confined space entry, falls, electrical hazards, pinch points, lifting injuries, noise injuries, and exposure through gasses, liquids, solids, wastewater debris and sharp objects. We will look at the different types of safety risks and how to protect our coworkers. This course will be a basic overview of safety in the workplace with emphasis</p>	<p>A HIGH-PERFORMANCE HMI: BETTER GRAPHICS FOR OPERATIONS EFFECTIVENESS Almost all industrial processes are controlled by operators using dozens of graphic screens. The graphic designs are typically little more than P&IDs covered in hundreds of numbers. This traditional, “low performance” Human Machine Interface (HMI) paradigm is typical in all processes controlled by DCS and SCADA systems, including the water and wastewater sector. It has been shown to be lacking in both providing operator situation awareness and in facilitating proper response to upsets. In many industries, poor HMIs have contributed to major accidents, including fatalities. HMI improvement has become a hot topic. The knowledge and control capabilities now exist for creating High Performance HMIs. These provide for much improved situation awareness, improved surveillance and control, easier training, and verifiable cost savings. Implementation of proper graphic principles can greatly enhance operator effectiveness. A High-Performance HMI is both practical and achievable. Rick Patton, Advanced Control Systems W/WW</p>	<p>Acoustic Leak Detection and Smart Water Meters Acoustics is used extensively for detecting and locating leaks within a water grid and devices like listening sticks, correlators and loggers all have pros and cons. However, an integrated acoustic sensor housed in the meter presents a simple approach to easily increase the number of acoustic sensors in a water grid tenfold. Doug McClintic, Kamstrup W</p>	<p>Certification Basics This presentation will cover the application and certification process, tips to avoid mistakes, an overview of where to find the information you need on DEQ’s website, and an opportunity for program feedback. Kimi Gryzb, DEQ WW</p>	<p>Prioritizing Cleaning & Improving Efficiency with Acoustic Inspection Technology Effectively deploying resources to reduce sanitary sewer overflows (SSOs) is a tricky challenge. If cleaning resources are deployed to pipes that are functioning properly, then time and money are wasted. But if a blocked pipe is overlooked, SSOs may occur. For the average utility, determining where the 10-35% of pipe segments with blockages in the entire network is difficult and results in cleaning already clean pipes. For this reason, hundreds of utilities have started using transmissive acoustics to rapidly screen small diameter gravity-sewer lines before deploying cleaning resources. The technology called the Sewer Line Rapid Assessment Tool, or SL-RAT, uses sound waves to quickly assess for blockages. The SL-RAT can provide an assessment in three minutes or less, meaning a two-person crew can inspect 10-20,000 ft/day. This very fast and low-cost method of assessment is a powerful tool for wastewater collection system managers to gain understanding of their entire system. The quick insight helps focus resources to segments with identified need. Therefore, rapid acoustic assessment has become a helpful and economically attractive tool in helping utilities to stop cleaning</p>

		<p>on collection system equipment and PPE (personal protective equipment) that is involved in each activity. New administrators, operators and designers will be presented with how wastewater system design can mitigate safety concerns while still achieving the need for effective and affordable service.</p> <p>Joe Schmidt, Smith & Loveless, Inc. W/WW</p>				<p>clean pipe and transition to a condition-based maintenance program. This presentation will examine numerous utilities that have effectively implemented acoustic inspections and discuss implementation strategies, cost-savings analysis and program results to demonstrate application. Furthermore, limitations of the technology will be discussed to give a comprehensive overlook of acoustic inspection technology. This presentation will be based on operator training courses performed around the country and will summarize a recently published ASTM Standard developed for acoustic pipe inspection.</p> <p>Gene Hallum, InfoSense WW</p>
12:00 – 01:00 PM		<p>Lunch with Exhibit Time: The latest applications, equipment, tools, and techniques in our industry.</p>				
01:00 – 03:00 PM	0.2	<p>Tank Asset Management & Maintenance: a viable alternative to traditional run-to-fail maintenance.</p> <p>AWWA M42 “Steel Water Storage Tanks” offers support for this approach stating: “A good, comprehensive preventive maintenance program can extend the life of an existing tank indefinitely.” Preventive maintenance programs can substantially delay or eliminate the need to replace a utilities large capital investment and often result in lower life-cycle maintenance costs and improved water quality compared to the traditional approach to tank maintenance.</p> <p>This presentation will discuss different aspects of preventative maintenance for tank owners and how they differ from the traditional run to fail method. Topics</p>	<p>Access Rights for Water Utilities</p> <p>Learn best practices for obtaining and confirming access rights and the scope of such access rights for repairs, removal of access barriers, and more.</p> <p>Water Rights Due Diligence & Modifications</p> <p>Learn strategies for researching and creating a water right portfolio, protecting water rights, and making changes to water rights as necessary for water use compliance.</p> <p>Sarah Lilijefelt, Schroeder Law Offices W/WW</p>	<p>Checking in on Check Valves</p> <p>Selection Criteria, Head Loss Characteristics, Design Pros/Cons</p> <p>Air Valves</p> <p>Air Vac, Air Release, Combo Valves, Surge Suppression, High/low Pressure Applications, and Sizing.</p> <p>Steve Causeaux, CIMCO-GC Systems W/WW</p>	<p>Industrial Pretreatment and Roundtable Discussion</p> <p>Looking at industrial Pretreatment programs and how to make yours run smoothly. Followed by an informal opportunity to discuss any current topics of interest to OAWU members with DEQ regional staff and managers.</p> <p>Genet Belete, Tiffany Yelton-Bram, DEQ Staff WW</p>	<p>Lagoon Management and Solids Handling</p> <p>The presentation will introduce lagoons in a way that new operators can understand. There will be an emphasis on how to best manage pretreatment ordinances to avoid operational challenges, as well as a workshop to help operators better understand and manage their biosolids.</p> <p>The Changing World of Pretreatment</p> <p>From FOG to H2S, Hefeweizen and more. What you should be doing to combat the changing world of wastewater regulations, how to protect your treatment facility, and what to expect moving forward.</p> <p>Tanner Hartsock, BioLynceus WW</p>

	<p>covered will include: safety, sanitary, structural, security and coatings conditions, as well as applicable industry standards.</p> <p>Concrete Tank Rehabilitation: Why Coat Concrete Structures in Water and Wastewater Systems</p> <p>Often has a variety of inherent defects including porosity, drying-shrinkage cracks, bug holes, honeycombing, and cracks. Over time, spalling and additional crack formation may lead to structural issues potentially endangering the asset. The very nature of uncoated concrete creates an environment where significant water quality and compliance issues associated with biological fouling may exist. Though frequently assumed to be “maintenance-free” concrete assets need to be a part of an ongoing asset management approach, of which coatings are an integral part. Advanced coatings systems allow concrete tanks to be rehabilitated and maintained improving water quality, protecting the asset, reducing non revenue water, and extending the asset life. This presentation provides a discussion on maintenance to protect the asset, NSF approval of materials, and improved water quality will allow the Owner to easily see the benefits of coating existing and new concrete structures. Lastly, several examples of ‘before and after’ projects will be discussed.</p> <p>Jeff Austin, Suez W/WW</p>				
03:00 – 03:30 PM	<p>Break with Exhibit Time: The latest applications, equipment, tools, and techniques in our industry.</p>				

<p>03:30 – 05:00 PM</p>	<p>0.15</p>	<p>Real World Strategies for Managing Aging Infrastructure – An Everyman’s Approach to Everyone’s Problems This session will walk through the real-world challenges faced by a small 50-year-old municipality/ property located on the Oregon Coast. The property had suffered through the typical cycles of deferred maintenance and decades of deterioration which was compounded by a complete lack of documentation or maintenance plans. Over the past three years we have undertaken the challenge of developing a sustainable long-term maintenance plan. We will discuss the value of professional partnerships, and the steps we are undertaking to implement the tools required for success, including GIS mapping, CMMS asset management program, budgeting, and scheduling. This is seriously far more interesting than it sounds. Leo Newberg, Inn at Otter Crest W/WW</p>	<p>The New Tech Normal The whole world is moving online more and more, and now accelerated by the pandemic. What are the best tools to do your jobs in local govt? What kind of technology you should be investing in? What protocols or trends are upcoming that you should consider leveraging? This session will deal with the basic understanding of the paradigm shift and provide managers in all ranks ideas and tools to bank on. Arnab Bhowmick, AAKAVS AKTIVOV W/WW</p>	<p>Air Valves Discusses how air becomes entrained in water, how air moves through water/wastewater systems, and the dangers inherent in that movement and how to address these challenges. We will also explore a brief primer on fluid mechanics. Geoff Robinson, Frank J. Martin Co. W/WW</p>	<p>No Class</p>	<p>Collections Plugging Solutions What types of items are being found in wastewater collections, and what types of pumps are available to prevent collections plugs. We discuss the advantages and disadvantages of each design, and concept. Rich Owens, Owens Pump & Equipment WW</p>
<p>05:30 – 07:30 PM 0.1</p>	<p>Dinner with Exhibit Time: The latest applications, equipment, tools, and techniques in our industry</p>					<p>W/WW</p>

WEDNESDAY		AUGUST 25, 2021			
07:00 – 08:00 AM		Continental Breakfast Exhibit Hall			
		Necanicum	Riverside A	Riverside B	Seaside A/B
08:00 – 09:30 AM	0.15	<p>WIFIA and Beyond: Check Out All of the Funding Options Every water and wastewater utility in the United States should be aware of and consider participating in the Environmental Protection Agency’s Water Infrastructure Finance & Innovation Act (WIFIA) loan program and other State and Federal programs that offer loans and grants. The benefits to your community and ratepayers can have generational impact. Our staff has supported more than \$1.4B in loan Letters of Interests and subsequent applications. This presentation covers what utilities should know about WIFIA, State SRF funds, and USDA Rural Development Loans. Kim Marshall, Barney & Worth, Inc. W/WW</p>	<p>FlexiRiser Drop Pipe – Saving money pumping FlexiRiser Drop pipes are designed to replace the steel/rigid pipe in submersible pump water wells. This type of a drop pipe has been manufactured since 1990 and has proven itself as a long-term solution for residential, water utilities, mines and industrial applications. The advantages of FlexiRiser drop pipe include totally non-corrosive, easier, safer and quicker to install and retrieve pumps and are also NSF 61 certified for use with portable water. We will discuss the life-time savings you realize when moving to FlexiRiser drop pipes. We will touch on the fact that well rehabilitation, until now often viewed as an expensive luxury but an extremely important part of well maintenance, is now very much a reality and in reach for most wells. Nicolas Steverlynck, Hose Solutions W/WW</p>	<p>Advanced Metering Infrastructure (AMI) - Is It Now Within Reach for Small to Mid-Sized Utilities? Water utilities are better understanding AMI and the advantages and benefits it can provide over other technologies. However with this understanding there still remains the challenge of maintaining the system making AMI justifiably within reach for small to medium sized utilities. This presentation will discuss some new and innovative options that small and medium utilities now have to deploy, operate and maintain a modern AMI system. Traditional utility based deployments as well as “cloud” based alternatives will be discussed. This presentation will include be a basic review of AMI and AMR technologies, how they function and what makes them smart. It will also discuss how AMI can be made affordable and applicable to small to medium sized utilities utilizing a new approach to procurement, installation, on-going operations and maintenance for a complete integrated AMI system. Case studies demonstrating the benefits realized in real world deployment of AMI will be reviewed. Jeff Austin, SUEZ Advanced Solutions W</p>	<p>Intelligent Pumps and Controls for Wastewater What station management and integration should involve. Best practices and the latest pumps entering the market. Simon Cartwright, Xylem WW</p>
09:30 – 10:00 AM		Exhibit Time: Learn the latest applications, equipment, tools, and techniques in our industry W/WW			
10:00 – 12:00 PM	0.2	<p>Communicating with Engineers Effective ways to communicate with engineers on your water and wastewater projects. Getting your point across in a technical world is vital to any water and wastewater project that will need to be engineered. Come learn methods to be clear and concise so that the engineer can understand what we want at our systems. Mike Grimm, West Slope Water District W/WW</p>	<p>Asset Management, Capital Planning, Project Management We will touch the basics on maintenance management and asset management, but also go beyond that into planning and project execution. Local govt. struggles with comprehensive plans and spends lots of \$\$\$ on such plans, yet they are not equipped with a plan based on real time condition and data from the field. This session will discuss beyond the basics, how ailing and failing infrastructure can be identified and prioritized for repair, rehab or replacement, how capital</p>	<p>Water Quality Training on stagnant lines, tank turnover, flushing programs, and sampling. Buried Pipelines Training on different types of buried pipelines including alternative measures for pipeline assessment and pros and cons of each. Mike Uthe, Muller W</p>	<p>Revolutionizing Sludge Dewatering Discussion of how sludge is dewatered for drinking water treatment backwash beds and wastewater facilities currently and with what kinds of equipment. Each kind of equipment has their positives and negatives, but what are the most important features you want as a plant? Maintenance, sludge consistency, or simplicity? Rich Owens, Owens Pump & Equipment W/WW</p>

27th Annual Summer Classic Scheduling – Outline - Seaside, OR

			<p>budgets and plans can be developed, how maintenance crew becomes integral part of the capital planning, how activities and tasks can be forecasted and budgeted, and how projects can be managed within budget and timeline effectively.</p> <p>Arnab Bhowmick, AAKAVS AKTIVOV W/WW</p>		
12:00 – 01:30 PM		Lunch			
01:30 – 03:00 PM	0.15	<p>Only Two classes this session: Necanicum and Riverside B 1:30 – 4:45</p>	<p>Job Site Safety Discuss the overall approach to key elements of a strong health and safety program, reviewing the psychology side of management and employee’s responsibilities. Overview of topics for both routine and non-routine tasks associated with risk, and how to practically expand safety programs to mitigate such risks. Tim Tice, Scott Berry, OAWU W/WW</p>	<p>Math for Operators This class will cover the understanding of basic math concepts and formulas for water and wastewater operators including areas, volume, conversions, pounds, formulas, velocity, flow, head and hydraulics and more for system operators. Please bring your calculators and system questions. Mike Collier, OAWU W/WW</p>	
03:00 – 03:15 PM		Break			
03:15 – 04:45 PM	0.15	<p>Only Two classes this session: Necanicum and Riverside B 1:30 – 4:45</p>	<p>Job Site Safety Continued W/WW</p>	<p>Math for Operators Continued W/WW</p>	

THURSDAY		AUGUST 26, 2021			
07:00 – 08:00 AM		Continental Breakfast			
08:00 – 09:45 AM	0.175	Chemical Feeds Pumps Water and Wastewater chemical feed pump application, operation, maintenance, and installation. Phil Pelletier, Furrow Pump W/WW	System O&M Understanding what it takes to successfully operate and maintain a water and/or wastewater system. Everything from paperwork you keep, critical parts inventory, budget, training, staff succession, outlining and delegating tasks, monthly reports and tracking, staff and council/ board communication and public relations. OAWU Board (Mike Edwards, Tim Lyda, Matt Johnson, and OAWU Board) W/WW	Getting Confident with Your Control Valves Hydraulic control valves can cause uncertainty with water operators. For example, operators may ask, what is happening inside a control valve to achieve its function? What happens if it malfunctions? What can cause it to malfunction? How do we approach these valves safely if they do malfunction? These age-old questions will be answered in this 2-hour class. We will begin with the basic understanding of hydraulic valves and move into how to approach these valves safely for shut down, troubleshooting, and start up. Steve Causseaux, CIMCO-GC Systems W	Protecting the Collection System What to look for in storm or sanitary sewer systems and a look at technologies available to protect and extend the life of your infrastructure Doug Troyer, Underground Tech WW
09:45 – 10:00 AM		Break			
10:00 – 11:45 AM	0.175	Tip Selection and Combination Trucks Review the application of hydro excavation, new technology, proper methods, equipment used, safety, and the use and applicability of different nozzle types. This class will cover different technologies, tips, tricks and operator’s safety in Hydro-Excavation and Combination trucks. Eric Lundy, Owen Equipment W/WW	2020 City of Newport Water Emergency – Addressing water shortages in a COVID climate. The City of Newport’s drinking water system draws surface water from the Big Creek Reservoirs and treats the water in a PALL membrane micro-filtration plant with a peak capacity of 5 MGD and an average daily demand of 3.5 MGD. Newport’s water system experiences significant demand variability throughout the year due to the high-water demand of the commercial fish processing facilities on the Yaquina Bay bayfront. Fishing seasons vary throughout the year and different processing techniques require different water volumes. During certain months of the year, the fish processing facilities can represent approximately 50% of the City’s water demand. In the early summer of 2020, at the beginning of the whitefish season, the City of Newport began having problems meeting water demand due to excessive plugging of the membrane filters at the City’s water treatment plant. This emergency eventually resulted in the installation of a temporary sand-filter water treatment facility to supplement flows, and a significant capital investment to build redundancy within the Newport treatment system. This presentation will discuss the water quality problems the City encountered, the actions taken to provide immediate and long	Disaster Recovery How to Prepare for disaster recovery beforehand and what were some takeaways from a real-life example. David Jacob, Hydra Engineering W/WW	Collections Plugging Solutions What types of items are being found in wastewater collections, and what types of pumps are available to prevent collections plugs. We discuss the advantages and disadvantages of each design, and concept. Rich Owens, Owens Pump & Equipment WW

