

TUESDAY		OCTOBER 26, 2021	
Time			
07:30 – 08:00 AM		Registration	
		Molalla A/B	Kalapuya A
08:00 – 10:00 AM	0.2	<p>Work Place Safety We will discuss workplace safety at water treatment plants and the hazards associated with installing water and sewer lines. We will also discuss the Covid-19 rules and Heat Stress. There will be pictures of hazards in the workplace and time to ask questions. Larry Fipp, OSHA W/WW</p>	<p>A.D. (Air Driven) Floating Aerators/Mixers, The Versatile Solution for Water & Wastewater Applications Efficient lagoon aeration and mixing has been a challenge for decades. Applications requiring aeration and mixing span across various markets including municipal water and wastewater, industrial and commercial industries. Some of the most common challenges experienced by these industries include sludge control, odor issues, limited equipment adaptability/versatility, high maintenance costs, cold weather issues, safety, and high operational costs. A.D. (Air Driven) Floating Aerators/Mixers offer many advantages over mechanical floating aerators and bottom diffusers for lagoons, large basins, large tanks, and even large pump stations.</p> <ul style="list-style-type: none"> • Sludge Reduction, minimizing costs associated with excessive sludge removal and disposal • Odor Elimination, improving negative environmental impact • Efficient Operation, providing expected aeration and mixing results at lowest possible energy consumption • Algae Control, offering successful methods to combat algae • Low Maintenance, resulting in low life cycle cost • Safe Design, centralized, shore-based power source • Versatility, delivering flexibility and adaptability to a wide range of applications, weather conditions, site challenges, and function. <p>As new technologies are developed, more advanced solutions are available. A.D. Floating Aerators have evolved into multi-functional systems. New designs provide dramatically improved mixing efficiency, superior oxygen transfer rates (SOTR), excellent S.A.E. (Standard Aeration Efficiency) and are extremely versatile. New advancements in A.D. Floating Aerators have also incorporated designs to enhance safety, and significantly reduce installation costs. The focus on versatility in A.D. Floating Aerators has resulted in notable advantages to the market. Newer technologies are designed to properly operate in almost any weather condition. In addition, they are intended to be mobile with the capability of covering the entire surface of a lagoon. This versatility, more so,</p>

			<p>allows the use of many A.D. Floating Aerators to span a wide range of applications from water, wastewater, industrial to commercial.</p> <p>Chemical Free Odor Control Along Conveyance Systems</p> <p>Every year Sewer Agencies face rising costs associated with wastewater treatment. Capacity to keep up with the growth in communities, more stringent regulations, energy prices, and managing labor are all budget related challenges faced by the industry. Combine these issues with the rising costs of collection and conveyance system maintenance, it all adds up to major financial obligations for agencies and municipalities. Agencies are plagued with cost and resource burdens associated with wastewater maintenance addressing:</p> <ul style="list-style-type: none"> •Fats/Oils/Grease (FOG) •Corrosion •Odors •Pathogens •Organics •Food Waste •Industrial discharges, and more <p>Many times these issues are addressed with chemical by implementing new approaches and technologies in the conveyance systems, there are opportunities to address many of these vexing problems. Acknowledging issues at various conveyance points along the system, such as at pump stations, lift stations, and wet wells provides the opportunity to address site specific issues, ultimately lightening the treatment burden at the wastewater treatment plant. Incorporating De-Centralization techniques, and using new technologies, significantly reduces overall costs at the wastewater treatment facility, as well as throughout the entire conveyance and collections system. Innovations in De-Centralized Wastewater technologies have developed, evolved, and been implemented, with dramatic results. We will present several case studies, conducted over the last few years, in both public and private systems. Each case highlights the advantages that can be realized by implementing a De-Centralized system, and incorporating technologies such as aeration, ozone, mixing, and more. These, and other various technologies and products can provide effective, viable solutions, when incorporated into a De-Centralized wastewater system. De-Centralized Wastewater Treatment, along with aeration, ozone and mixing, is a proven concept in the wastewater industry. For communities of all sizes, De-centralized Wastewater Treatment:</p> <ul style="list-style-type: none"> •Reduces costs
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10:00 – 10:15 AM		Break	
10:15 – 12:00 PM	0.175	<p>Hydro excavation safety and training In this course we plan on covering operator safety from start to finish on hydro excavation and utility locating. We will cover practices on valve exercising. I will incorporate some info on small line jetting and piercing tools. Plan on having conversations in manufacturer challenges and how it affects the industry. We will try and finish it up with some equipment walk around and questions.</p> <p>Nick Frappier, RDO Equipment W/WW</p>	<p>Control Valve Fundamentals Basic Operation, Sizing, Pressure Reducing, Relief, and Sustaining Valves, Valve Components, Maintenance, Troubleshooting.</p> <p>Steve Causseaux, CIMCO-GC Systems W/WW</p>
12:00 – 01:00 PM		Lunch provided	
01:00 – 02:00 PM	0.1	<p>Chemicals in Water & Wastewater A comprehensive Overview of Chemicals used and available in Water and Wastewater applications. New approaches, applications and innovations to historic chemical uses. Interactive session to discuss Chemical issues, problems, applications and solutions to typical Water and Wastewater operations.</p> <p>Jeff Zachman, Cascade Columbia Distribution W/WW</p>	<p>Checking in on Check Valves Basic Function, Styles, and Selection.</p> <p>Steve Causseaux, CIMCO-GC Systems W/WW</p>
02:00 – 02:15 PM		Break	
02:15 – 03:30 PM	0.125	<p>Large Fuel Spills- How do they affect your Water and Wastewater Systems? Discusses how a large-scale fuel leak affected one City’s systems. Would you be ready to protect your systems from gasoline? Gasoline infiltrating your Collection System? Gasoline seeping into your waterline trench? Discuss with Operators on the steps that were taken on their systems during a recent fuel spill. What went good? What could be improved on?</p> <p>Mark Landau, Matt Johnson, City of Monmouth W/WW</p>	<p>Collection and Conveyance, Regulatory Challenges, Recycled Water & Resource Recovery Failing septic systems can be a significant health hazard to both the septic tank owner and downstream residents. Additionally, the amount of land needed for drain fields makes it difficult to attract new businesses and developers. For some communities, their financial situation prohibits the addition of a city sewer system. Moreover, for residents of the North Santiam Canyon region of Oregon, The Three Basin Rule (OR 340-041-0350) makes it even more challenging to convert to a community-based sewer system. This rule prohibits additional surface water discharges to certain rivers, including the North Santiam River, which supplies drinking water to the City of Salem. Add to all this the recent wildfires that devastated this North Santiam Canyon region and bring up additional questions about rebuilding.</p> <p>A regional solution to address these regulatory and financial issues has gained traction in the past few years. With the support of Marion County and the Mid-Willamette Valley Council of Governments, the communities of Detroit, Gates, Idanha, and Mill City have engaged in discussions regarding the possible incorporation of a regional system sewer system. In January</p>

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			<p>2017, a regional sewer system feasibility study was completed. A master plan is currently underway, and these entities are in the final steps of establishing a “sewer authority.” This presentation will discuss the difficulty in developing a regional sewer system in this mountainous area, the challenges of creating a sewer authority among the communities, and the steps needed to protect this critically important drinking water source. Added to this will be navigating the planning process during and after the recent wildfires in the canyon.</p> <p>Technical Areas:</p> <ul style="list-style-type: none"> • Infrastructure funding • Wastewater disposal and treatment alternatives • Regulatory challenges • Regionalization • Establishment of sewer authority <p>Peter Olsen, Keller Associates WW</p>
03:30 – 03:45 PM		Break	
03:45 – 04:45 PM	0.1	<p>Water and Wastewater Certification Update Review the rules and regulations around getting Certified and staying Certified in the Water and Wastewater Industry. Bob Waller, Keith Bedell, OAWU W/WW</p>	<p>Lincoln city wastewater plant upgrades Lincoln cities wastewater treatment plant plan to meet future discharge compliance schedules. Dan Christian, City of Lincoln City WW</p>
WEDNESDAY		OCTOBER 27, 2021	
07:00 – 08:00 AM		Coffee	
08:00 – 10:00 AM	0.2	<p>How to start and fund Asset Management program from scratch Local govts. are still struggling with maintenance and operations of their assets, while trying to comply with regulations, condition assessments, budgeting, and reporting requirements. We will touch on the maintenance management and asset management basics, and go beyond into strategic / capital planning and project execution. Local govt. confront challenges with comprehensive plans and rate studies, spends a lot on those, 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 budgets and plans can be developed, how maintenance crews become an integral part of the strategic planning, how activities and tasks can be forecasted and budgeted, and how projects can be managed within budget and timeline effectively. It’s an immersive session also including strategies on how to fund and start such program within your organization. Arnab Bhowmick, AAKAVS AKTIVOV W/WW</p>	<p>Ask the Old Fart a Question This class will be a round table discussion on everything related to the Water and Wastewater Industry. Please bring your questions or problems you are having at your system and they can be discussed both between the other peers that are in the room and the many years of experience that has been had both by the instructor, Darrel Lockard and the other Circuit Riders with OAWU that will also be in the room for question and answers. Darrel Lockard, Retired W/WW</p>
10:00 – 10:15 AM		Break	

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10:15 – 12:00 PM	0.175	<p>Leak Detection for Water & Wastewater Utilities</p> <p>This course is designed to provide you with some basic knowledge of leak detection practices and correlation methods. Students will be instructed in the basics and background theory of leak detection in water and wastewater systems to better utilize basic correlation techniques for distribution and collection systems. Participants will learn various methods available to identify and find leaks. A variety of equipment will be demonstrated and used to aid students in accurately pinpointing leaks in all types of pipe materials.</p> <p>Scott Berry, OAWU W/WW</p>	<p>Wastewater Modeling Process and Benefits</p> <p>An in depth look at the creation of a wastewater model, including flow monitoring requirements, and the benefits of a working model in regard to inflow & infiltration rehab, planning and development studies and future flow predictions for design storms and urban growth boundary expansions.</p> <p>Samuel Novac, Novac Industries, LLC WW</p>
12:00 – 01:00 PM		Lunch provided	
01:00 – 02:00 PM	0.1	<p>The New Tech Normal</p> <p>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.</p> <p>Arnab Bhowmick, AAKAVS AKTIVOV W/WW</p>	<p>Acoustic Leak Detection and Smart Water Meters</p> <p>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.</p> <p>Doug McClintic, Kamstrup W</p>
02:00 – 02:15 PM		Break	
02:15 – 03:30 PM	0.125	<p>The Show Must Go On</p> <p>Public Works Operations and Maintenance do not stop even in a pandemic. There are established rules on how the operations go on during major events e..g storms, floods, earthquake. But this deals with bigger showstoppers like the recent pandemics where business continuity becomes very important to keep serving our citizens. The citizen interactions also become important as people cannot meet physically. We will discuss business continuity and operations in an adaptive hybrid mode with a mix of online and in-person where whatever makes sense and how. The attendees will come out with a clear idea on how to deal with such situations in the future and operate in the new normal.</p> <p>Arnab Bhowmick, AAKAVS AKTIVOV W/WW</p>	<p>Hydraulic Control Valve Training and Troubleshooting</p> <p>Control valves can help provide data about a water system and diminish non-revenue water. I will discuss the hydraulic fundamentals of these valves, basics of a pilot system, and diverse valve/pilot set up solutions to help control and protect water system assets. Reviewed in this presentation will be common valve configurations, rolling diaphragm for low flow stability, and integral back-up valves for critical regions of a water system. We will also briefly cover cavitation within valves, and how using control valves, demand-based set points, and DMAs can reduce water loss.</p> <p>Tim Owens, Correct Equipment W</p>
03:30 – 03:45 PM		Break	
03:45 – 04:45 PM	0.1	<p>Locating Basics</p> <p>Damaging other utilities is extremely costly to the water and wastewater industries. This class will review the basics of how to properly locate buried utilities to avoid these costly repair bills.</p> <p>Doug Dato, Trade Tool W/WW</p>	<p>Preparation for AMI</p> <p>AMI offers you asset management features that you simply have not had before. It's important to understand what you are receiving and being prepared for it. This class will cover those features and ways to best prepare.</p> <p>Pat Hart, Ferguson Waterworks W</p>

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THURSDAY		OCTOBER 28, 2021	
07:00 – 08:00 AM		Coffee	
08:00 – 10:00 AM	0.2	<p>Chemical Feeds Pumps Water and Wastewater chemical feed pump application, operation, maintenance, and installation. Phil Pelletier, Furrow Pump W/WW</p>	<p>"The National Pretreatment Program, Resource Recovery and Reuse" - Managing Resources for a Sustainable Future Overview of the National Pretreatment Program and how to reduce, recover and reuse resources or waste products in a community: History of the National Pretreatment Program One Water Framework Resource Recovery Sustainable Materials Management- FOG, liquid wastes and sludges Triple Bottom Line GHG inventory/Reduction Energy production Nutrient Recovery Industrial Partnerships Specific Project : Brewery Waste Management and Sustainability Roadmap to Resource Recovery / Co-gen Feasibility Building a Team – Roles and Responsibilities Christina Davenport, City of Bend WW</p>
10:00 – 10:15 AM		Break	
10:15 – 12:00 PM	0.175	<p>Project Inspections How to prepare for and properly conduct construction inspections for the water and wastewater industry. This will incorporate the importance of implementing and using construction and materials specifications and standards. Mike Edwards, City of Bend W/WW</p>	<p>Operation of an Anerobic Lagoon The ins and outs of operating, managing, and maintaining an anerobic lagoon system. What it can treat and how it works. Dick Heard, Heard Farms WW</p>
12:00 – 01:00 PM		Lunch provided	
01:00 – 02:00 PM	0.1	<p>Tank Asset Management & Maintenance Programs: a viable alternative to traditional run-to-fail maintenance procurement 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. This presentation will discuss the different approaches to preventative maintenance available to tank owners and how they differ from the traditional means of tank maintenance procurement including six feature of full service preventive tank maintenance programs: single source responsibility, balanced funding, evaluation and planning, regulatory & GASB 34 compliance, annual inspection and maintenance, and emergency repair service. Jeff Austin, SUEZ Advanced Solutions W/WW</p>	<p>Everything AMI This presentation will be based on AMI metering that drives customer side leak detection, customer facing data portals, meter trending, conservation and customer service utilizing the data and related solutions. Participant interaction will be important to help set the course for the ultimate question of do you use AMI, have plans to in the future or what are the benefits and possible drawbacks for your particular system? This participant fueled presentation will be dynamic and will outline the City of Bend’s current AMI program while relating to the participants particular water systems, needs and future programs that are forthcoming or on the wish list. Spencer Cashwell, City of Bend W</p>
02:00 – 02:15 PM		Break	

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02:15 – 03:30 PM	0.125	<p>Spray In Place Pipe Rehabilitation: Trench-less Technology Utilizing Advanced, 100% Solid, High Mil Epoxy Lining Systems</p> <p>Pipe replacement may not always be the most cost-effective approach to replacing aging mains. Needed funding, congestion above and below ground, and the lack of public tolerance for the disruption caused by construction work is making the replacement of w/ww mains more difficult for utility owners. Alternative methods of restoration of aging piping systems using state of the art robotic spray application combined with 100% solids epoxy coating systems may offer a better solution. The coating system bonds with the piping system—preventing and sealing cracks— and moves with the structure, abating leaks caused by settlement. This trench-less process requires less digging, disruption, and downtime while protecting against future corrosion & degradation, extending the service life of system piping & components, and enhancing water quality.</p> <p>Jeff Austin, SUEZ Advanced Solutions W/WW</p>	<p>An Operators Perspective on the MAO Process with DEQ</p> <p>An operator’s perspective on handling a MAO agreement with DEQ. How and why it is needed, what can the operator do, and how does the MAO help the plant operator and City?</p> <p>Matt Etzel, City of Aumsville WW</p>
03:30 – 03:45 PM		Break	
03:45 – 04:45 PM	0.1	<p>New Cut in Valve Technology</p> <p>In both the Water and Wastewater industries we have times that we don’t have the luxury of shutting down and dewatering a line to put in a new valve. The technology that will be discussed and shown in this class allows you to install a valve on a live pressurized line. This class will go over both how these valves are installed, and the installation technology will be on hand to look at as well as a discussion of how to pick the appropriate location to put these valves in.</p> <p>Tim Lyda, City of Tillamook W/WW</p>	<p>Advanced Metering Infrastructure (AMI) - Is It Now Within Reach for Small to Mid-Sized Utilities?</p> <p>Water utilities are better understanding AMI and the advantages and benefits it can provide over other technologies. However there still remains the challenge of maintaining the system making AMI justifiably within reach for small to medium sized utilities. There any new strategies and options that are available today to bring AMI 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 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, and on-going operations and maintenance for a complete integrated AMI system.</p> <p>Jeff Austin, SUEZ Advanced Solutions W</p>