

44th Annual Management & Technical Conference - March 2022

Monday, February 28, 2022	Pre-Conference Schedule	0.6 Total CEUs
	<p><u>Landmark I/II</u> 8:00 am – 12:15 pm Flagger Certification Attend this ODOT flagger course to obtain flagger requirements. Attendees completing this course and exam become an ODOT certified flagger through the Chemeketa Community College course. (10 am – 10:15 am Break) <i>Keith Williams, USFS</i> 0.4 W/WW CEUs ESAC #TBA</p>	<p><u>Heritage I</u> 9:00 am – 12:00 pm Risk Assessment and Emergency Response How to complete a risk assessment and be proactive and prepared for an emergency at your water and wastewater system. <i>Scott Berry</i> 0.3 W/WW CEUs ESAC #TBA</p> <p>1:00 pm – 4:00 pm Emerging Contaminants PFOS Workshop Class will provide an overview of sources and treatment options as well as current trends in regulations. <i>Keith Bedell</i> - 0.3 W/WW CEUs ESAC #TBA</p>

Tuesday, March 1, 2022 Conference Schedule	0.575 Total CEUs		
10:00 – 10:30 am (0.05) Great Hall – Opening Session –Influential Leadership for Water and Wastewater Utilities: Some tips and examples on how to be a more influential leader at your utilities. <i>Jason Green, OAWU Executive Director.</i>	W/WW		
10:30 – 11:00 am (0.05) Great Hall – NRWA Update – <i>David Baird, NRWA Board President, Russ Cooper, City of Monmouth.</i> The State of Water & Wastewater at the national level.	W/WW		
11:00 – 12:00 pm (0.1) Great Hall – Legislative Update – <i>Mark Landauer, OAWU/SDAO Lobbyist</i> – The latest issues of the State Legislature activities concerning water and wastewater utilities.	W/WW		
12 – 1 pm Lunch Break			
1 – 2:45 pm (0.175) Training Sessions			
<p><u>Great Hall</u> Onsite Generation Look at the benefits, operation, and maintenance of onsite chlorine generation for your water or wastewater utility. <i>Ethan Brooke, UGSI Solutions, Inc.</i></p> <p style="text-align: right;">W/WW</p>	<p><u>Landmark I/II</u> Chemical Feeds Pumps Water and Wastewater chemical feed pump application, operation, maintenance, and installation. <i>Phil Pelletier, Furrow Pump</i></p> <p style="text-align: right;">W/WW</p>	<p><u>Heritage I</u> Water Booster Pumps and Improvements Learn the many options and features of different types of water booster pumps used in municipal water distribution. There are many different styles of pumps to transmit and boost your system water pressure. What types do you need to keep your system maintenance free, and simple to run. <i>Rich Owens, Owens Pump & Equipment</i></p> <p style="text-align: right;">W</p>	<p><u>Heritage II</u> Pretreatment and Working with the Beverage Industry As Oregon economy has become known for their craft Beer produced in this great State, how do communities navigate working with the beverage industry and other high strength Wastewater dischargers. We will discuss how to set up a pretreatment plan to protect our Wastewater plant and successfully implement that plan to make it fair and equitable to all the system customers will be the topic of discussion. <i>Christina Davenport, City of Bend</i></p> <p style="text-align: right;">WW</p>
2:45 – 3 pm Break			
3 – 5 pm (0.2) Training Sessions			

<p>Great Hall 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. <i>OAWU Board (Mike Edwards, Matt Johnson, Tim Lyda, Mark Beam, Craig Smith)</i> W/WW</p>	<p>Landmark I/II 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. <i>Mike Grimm, West Slope Water District</i> W/WW</p>	<p>Heritage I Acoustic Leak Detection and Smart Water Meters Integrated acoustic sensor housed in the meter presents an approach to increase the number of acoustic sensors in a water grid tenfold. <i>Tim Owens, Correct Equipment</i> Hydraulic Control Valve Training and Troubleshooting Control valves for data about a water system and diminish non-revenue water. The hydraulic fundamentals, basics of a pilot system, and diverse valve/pilot set up solutions to help control and protect water system assets. <i>Tim Owens, Correct Equipment</i> W</p>	<p>Heritage II Critical Issues for Wastewater Operators In this course, operators will learn about new and emerging trends in the wastewater industry. From FOG to H2S, pretreatment, solids handling, and much more. This class will prepare wastewater operators for an uncertain future. The Future of Biosolids Handling Changing regulations are making biosolids handling and disposal more challenging than ever. Stay ahead of the curve by learning about where things are headed and why regulations are changing. <i>Tanner Hartsock, Biolyneus</i> WW</p>
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Wednesday, March 2, 2022 Conference Schedule **0.725 Total CEUs**

8 – 9 am (0.1) Training Sessions

<p>Great Hall Chemical Feed Pumps Need help deciding what chemical feed pump technology to use for your application? We will focus on the specific operational functions of both peristaltic pumps and diaphragm pumps relating to system parameters such as chemical, flows, pressures, and required ancillary equipment. A focus on specific applications relating water feeds and wastewater feeds will be discussed. A demonstration of parts replacement and identification will be covered. <i>Bill Ormsby, Blue-White</i> W/WW</p>	<p>Landmark I/II High Performance HMI HMI standards created by ISA-101. "International society of automation". How these standards that were created in 2015 create a more functional, easy to understand, and information driven operator interface. <i>Devon Davis, Advanced Control Systems</i> W/WW</p>	<p>Heritage I Meter Questions and Decisions Are you thinking about deploying a meter systems in the near future? This class will discuss the many questions and decision each utility will need to make to choose the meter and reading technology that is right for the utility. <i>Matt Zellers, Mueller</i> W</p>	<p>Heritage II Solutions for Pump Plugging What types of items are debris is found in wastewater collections, and what types of pumps and other equipment are available to prevent collections plugs. Minimize your downtime and personnel requirements in the field. <i>Rich Owens, Owens Pump & Equipment</i> WW</p>
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9 – 9:15 am Break

9:15 – 10:15 am (0.1) Training Sessions

<p>Great Hall CIPP Learn about pipe lining using the Cast in Place Pipping (CIPP) method. <i>Scott Bevens, Ditchwitch West</i> W/WW</p>	<p>Landmark I/II New Chlorine Measurement New technology that measures Total and Free Chlorine without using flow. How the technology works to measure chlorine and pH for your water or wastewater system. <i>Travis Silveri, Halogen Systems</i> W/WW</p>	<p>Heritage I Flexible Drop Pipe – Saving Money Pumping Water or Wastewater Flexible 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 water utilities, wastewater transfer pumps, mines, and industrial applications. The advantages of flexible drop pipe include totally non-corrosive, easier, safer, and quicker</p>	<p>Heritage II Revolutionizing Sludge Dewatering Why dewater your sludge? Find out how sludge can be dewatered and with what types of equipment. Each type of equipment has its positives and negatives. What are the essential features you want in your plant? Maintenance, sludge consistency, or simplicity? <i>Rich Owens, Owens Pump & Equipment</i> WW</p>
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		<p>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 flexible 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. Also, considerations for the wastewater industry.</p> <p><i>Andy Andiyastika, Hose Solutions, Inc. W/WW</i></p>	
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10:15 – 10:30 am Break

10:30 – 12 pm (0.15) Training Sessions

<p>Great Hall The Fundamentals of Electrochemistry Learn about the fundamentals for how electrodes function for pH measurements. Common measurement problems, calibration and measurement hints, and troubleshooting. <i>Mark McElroy, Thermo Fisher Scientific W/WW</i></p>	<p>Landmark I/II A Technical Overview of Sodium Hypochlorite Systems Better understand how sodium hypochlorite systems work, basic maintenance, and system operations. <i>Bryce Possiel, Evoqua Water Technologies LLC W/WW</i></p>	<p>Heritage I AMI Options There are a lot of different options on the market for AMI. We will discuss some of the benefits of each type of AMI Network on the market including Licensed AMI, Unlicensed AMI, Cellular, and LoRaWAN. <i>Matt Zellers, Mueller W</i></p>	<p>Heritage II Submersible Non-Clog Pumps</p> <ul style="list-style-type: none"> • Motor Design • Hydraulic Design <ul style="list-style-type: none"> ○ Contrablock Impeller Design and Comparison • Product Range <ul style="list-style-type: none"> ○ Construction ○ Monitoring Options ○ Dry Pit Configurations • Mounting <p>Submersible Mixers</p> <ul style="list-style-type: none"> • Product Range • Design Overview <p>Aeration Turbo-Compressors</p> <ul style="list-style-type: none"> • Project Range • Operating Principle • Turbo Blower Technology Comparison • Monitor and Control • Maintenance <p><i>Chris Briggs, Reiner Pump Systems WW</i></p>
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12 – 1 pm Lunch Break

1 – 3 pm (0.2) Training Sessions

<p>Great Hall Extending Utility/Municipal Services: Fees, Capacity, Easement & Boundary Considerations When can a utility/muni stop service to out of boundary connections? Why must a utility/muni have a written contract for out of boundary connections? What is the procedure for extending the service area? Can a</p>	<p>Landmark I/II Demystifying Submersible Pumps and Pump Curves Better understand what pump will be right for you, learn about pump curves and what pump and size might be best for your application. <i>Simon Cartwright, Xylem-Flygt W/WW</i></p>	<p>Heritage I 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?</p>	<p>Heritage II Wastewater Modeling Process and Benefits 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</p>
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<p>utility/muni refuse a connection because it doesn't have sufficient rate under its water rights? Doesn't have infrastructure capacity? Can a utility/muni force an in-boundary connection when the property has a county/state approved exempt well or septic?</p> <p>Easement Elements: Can You Enforce a Prescriptive, Implied or Necessity Right of Use for Water Infrastructure?</p> <p>Elements of Prescriptive, Implied or Necessity vs Express/Platted Utility Easements. If Water Management Organization is Public, is it limited to Acquiring Easements by purchase or condemnation? What are the Important Terms to Include in a Water Infrastructure Easement (Covenants)?</p> <p><i>Laura Schroder, Schroeder Law Offices</i> W/WW</p>		<p>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.</p> <p><i>Steve Causseaux, Cimco-GC Systems</i> W</p>	<p>predictions for design storms and urban growth boundary expansions.</p> <p><i>Samuel Novac, Novac Industries LLC</i> WW</p>
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3 – 3:15 pm Break

3:15 – 5 pm (0.175) Training Sessions

<p><u>Great Hall</u></p> <p>Master Planning 101</p> <p>We will cover the drivers for water and wastewater master planning, what data the operators should be collecting ahead of the master planning, what will the master planning process look like and what are the results of the master planning. Also, the reasons and ways that the operators can play an essential role in the master planning process.</p> <p><i>Peter Olsen, Emily Flock, Keller Associates, Inc.</i> W/WW</p>	<p><u>Landmark I/II</u></p> <p>Tip Selection and Combination Trucks</p> <p>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.</p> <p><i>Eric Lundy, Owens Equipment</i> W/WW</p>	<p><u>Heritage I</u></p> <p>The Role of Smart Tanks in Distribution Water Quality Management</p> <p>Today, the two most common distribution network violations that water utilities contend with are disinfection by products (DBPs) and violations of the Revised Total Coliform Rule. With the promulgation of the EPA's Stage 1 and Stage 2 Disinfection Byproduct Rules, water treatment operators and utilities scrambled to ensure their treatment plants were in compliance with THM limits and more carefully monitored plant chlorine dosing – or switched to the more persistent (long-lived) chloramine as a secondary disinfectant – which had a much lower propensity to form THMs. However, chloramine levels remain difficult to maintain in networks due to their unique chemistry and degradation mechanisms. In systems that remained with free-chlorine disinfection, residual chlorine can react further within the distribution network forming DBPs —both by further reactions with naturally occurring organic matter and with biofilms present in network pipes and tanks. DBP formation rates vary according to the type of</p>	<p><u>Heritage II</u></p> <p>Hydro excavation safety and training</p> <p>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><i>Nick Frappier, RDO Equipment</i> W/WW</p>
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Thursday, March 3, 2022 Conference Schedule **0.725 Total CEUs**

8 – 9 am (0.1) Training Sessions			
<p><u>Great Hall</u> Basic Math for Water/Wastewater Operators This 8-hour workshop will cover basic problem-solving ability needed to evaluate and control water and wastewater systems and those math problems typically encountered in the Level I & II water and wastewater</p>	<p><u>Landmark I/II</u> Working With Your Engineer Look at real life examples of working through project design and implementation with an engineer. How to communicate successfully to get the desired project outcomes. <i>Chad McMurry, Olson Engineering</i> W/WW</p>	<p><u>Heritage I</u> Preparation for AMI 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. <i>Pat Hart, Ferguson Waterworks</i> W</p>	<p><u>Heritage II</u> Water Quality Program Update Come hear about the newest developments in the DEQ water quality program and what to expect for your wastewater utility this coming year. <i>Oregon DEQ staff</i> WW</p>

<p>certification exams. The instruction begins with basic math instruction, including percent and proportions and solving for X, and then moves to areas and volumes, detention time, flow calculations, hydraulic and organic loading and progresses to specialty areas in wastewater treatment. The workshop materials include many practice problems to help operators become proficient in basic problem solving. Student should bring reliable calculators and notebooks to the workshop. Handouts, including math problems and reference materials, will be provided.</p> <p><i>Tim Anderson, Wastewater Solutions International</i> W/WW</p>			
<p>9 – 9:15 am Break</p>			
<p>9:15 – 10:15 am (0.1) Training Sessions</p>			
<p>Great Hall Basic Math for Water/Wastewater Operators (Continued)</p> <p style="text-align: right;">W/WW</p>	<p>Landmark I/II Sampling Protocols: Ensuring a Successful Sampling Event</p> <p>We will discuss all aspects of compliance sampling, including representative samples, proper containers, preservation and holding times as well as when to sample and send samples in.</p> <p><i>Lawrence Henderson, Edge Analytical, Inc.</i></p> <p style="text-align: right;">W/WW</p>	<p>Heritage I Big Wave Water Technologies – Reservoir Mixing & Chloramine Boosting</p> <p>This presentation will highlight the importance of tank mixing in maintaining distribution system water quality in potable water storage tanks. This will include an overview on automated chemical dosing systems to boost/maintain both free chlorine and chloramine residuals as well as THM Mitigation.</p> <p><i>David Hartwig, Big Wave Water Technologies</i></p> <p style="text-align: right;">W</p>	<p>Heritage II TMDL Program Updates</p> <p>This presentation will cover the newest developments in the TMDL program. Learn what to expect for your wastewater utility this coming year.</p> <p><i>Oregon DEQ Staff</i></p> <p style="text-align: right;">WW</p>
<p>10:15 – 10:45 am Exhibits</p>			
<p>10:45 – 12 pm (0.125) Training Sessions</p>			
<p>Great Hall Basic Math for Water/Wastewater Operators (Continued)</p> <p style="text-align: right;">W/WW</p>	<p>Landmark I/II Clearing the Air with Air Valves</p> <p>Proper use, placement, operation, and maintenance of air valves.</p> <p><i>Steve Causseaux, Cimco-GC Systems</i> W/WW</p>	<p>Heritage I Water System Surveys</p> <p>How to prepare for your water system survey. What to expect during a system survey.</p> <p><i>Heath Cokeley, OAWU</i></p> <p style="text-align: right;">W</p>	<p>Heritage II DEQ Virtual Inspection, How, Who and Why?</p> <p>How to prepare for your system inspection and what to expect for a virtual inspection.</p> <p><i>Anna Morgan Hayes, Oregon DEQ</i> WW</p>
<p>12 – 1:30 pm (0.1) Lunch Break with Exhibitors Learn the latest applications, equipment, tools and techniques for the water and wastewater industry. W/WW</p>			
<p>1:30 – 2:45 pm (0.125) Training Sessions</p>			
<p>Great Hall Basic Math for Water/Wastewater Operators (Continued)</p> <p style="text-align: right;">W/WW</p>	<p>Landmark I/II Corrosion Protection 101 - Controlling Corrosion with Coatings</p>	<p>Heritage I An Operators Perspective on AMI</p> <p>A tour through the implementation and use of an AMI solution including customer service,</p>	<p>Heritage II DEQ Wastewater Operator Certification Update</p> <p>This presentation will cover the application and certification process, tips</p>

	<p>Common Issues in Water and Waste...and how to mitigate and control with Protective Coatings</p> <p>Includes:</p> <ul style="list-style-type: none"> • Corrosion 101 • Service Environment - Assessing and Identifying • Developing plans/systems for corrosion control • Preparation • Material Choice to balance timeline, service life, and financial objectives • Common Corrosion Issues – steps to control <p><i>Ron Watts, PPG Industries</i> W/WW</p>	<p>leak detection, water and sewer rate studies, meter right sizing and under registration.</p> <p><i>Spencer Cashwell, City of Bend</i> W/WW</p>	<p>to avoid mistakes, an overview of where to find the information you need on DEQ's website, and an opportunity for program feedback.</p> <p><i>Randy Jones, DEQ</i> WW</p>
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2:45 – 3:15 pm Exhibits

3:15 – 5 pm (0.175) Training Sessions

<p>Great Hall Basic Math for Water/Wastewater Operators (Continued)</p> <p style="text-align: right;">W/WW</p>	<p>Landmark I/II Financial Roundtable on a Current Project</p> <p>Panel Discussion overview of funding opportunities each agency has available for water and wastewater systems. Concludes with Q&A to allow systems to discuss their specific projects.</p> <p><i>Bentley Hodges, CoBank, Business Oregon</i> W/WW</p>	<p>Heritage I On-line Chlorine Measurement Methods in Water Treatment</p> <p>A brief review of the approved methods currently utilized in water treatment for on-line measurement of chlorine. Discussion of the advantages of utilizing amperometric technologies in place of traditional colorimetric measurement. Contrast, comparisons, and case specific examples of where colorimetric may still be advantageous.</p> <p><i>Chris LaCour, ProMinent Fluid Controls</i> W</p>	<p>Heritage II Succession Planning and Financial Viability</p> <p>We will discuss the fine art of succession planning how to make healthy decisions for the workforce. Also discussed will be the financial viability of the districts and cities and how that plays a role in why that maintains a healthy industry.</p> <p><i>Randy Jones, DEQ, Tim Tice, OAWU</i> W/WW</p>
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Friday, March 4, 2022 Conference Schedule 0.375 Total CEUs

8 – 9 am (0.1) Training Sessions

<p>Great Hall OSHA Inspections</p> <p>What to expect in and how to be prepared for an OR-OSHA inspection.</p> <p><i>Larry Fipps, OSHA</i> W/WW</p>	<p>Landmark I/II Asset Management and Utility Rate Analysis and Rate Setting</p> <p>To do asset management or to set rates well, you need to do both well. They are entwined, so we will teach aspects of one and show the connection to the other. Keeping up infrastructure to the state of good repair, getting funds and grants, asset management, and setting appropriate rates all go hand in hand.</p> <p><i>Arnab Bhowmick, AAKAVS AKTIVOV</i> <i>Tim Tice, OAWU</i> W/WW</p>	<p>Heritage I Flushing and Sampling</p> <p>From water quality testing, flushing procedures and obtaining the goal of keeping high quality water, explore the methods put in place to achieve your goals.</p> <p><i>Geoff Robinson, Frank J. Martin Co.</i> W</p>	<p>Heritage II Biosolids Composting Project</p> <p>City of Albany-Millersburg composting facilities are being constructed to process biosolid material for beneficial reuse as a Class A product. This includes covered piles, with in-ground aeration, a biofiltration odor control system, covered storage for amendments and finished compost. The biosolids storage facility will also be enclosed and have a canister system for treating noxious odors. Significant equipment changes in the biosolids dewatering building include replacement of the BFPs, dewatered solids pumps, polymer addition system, two rotary screw presses, dewatered solids conveyor system, and a new</p>
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			polymer addition system will serve as replacements. Changes to the City of Albany-Millersburg dewatering and composting process are anticipated to be completed by March 2022. <i>Craig Prossor, Brian Stevens, City of Albany</i> WW
9 – 9:15 am Break			
9:15 – 10:15 am (0.1) Training Sessions			
Great Hall OSHA Inspections (Continued) <i>Larry Fipps, OSHA</i> W/WW	Landmark I/II Asset Management and Utility Rate Analysis and Rate Setting (continued) <i>Arnab Bhowmick, AAKAVS AKTIVOV</i> <i>Tim Tice, OAWU</i> W/WW	Heritage I Air Mitigation in Liquid Conveyance Systems Teaches basic principles of fluid dynamics and strategies for mitigating air/gas in pipelines. The class discusses how air becomes entrained in water, how air moves through water/wastewater systems. Course explores valve maintenance best practices and prevention of catastrophic failure events. <i>Geoff Robinson, Frank J. Martin Co.</i> W/WW	Heritage II Leadership for Water & Wastewater Utilities Some tips and practical ideas to help leader development and build an effective utility team at your water and wastewater system. <i>Jason Green, OAWU</i> W/WW
10:15 – 10:30 am Break			
10:30 – 12 pm (0.15) Training Sessions			
Great Hall Water and Wastewater Emergency Preparation – Learning from Oregon’s Coastal Communities The State of Oregon is one of the most proactive states regarding preparing water and wastewater utilities for emergencies such as earthquakes, tsunamis, and other natural disasters. During this presentation, the following will be discussed: 1) Drivers for emergency preparedness, 2) Regulatory requirements, 3) Examples of What is Being Done to Prepare, and 4) Case Study – City of Cannon Beach and other area utilities. <i>Travis Tormanen, Windsor Engineers</i> W/WW	Landmark I/II Asset Management and Utility Rate Analysis and Rate Setting (continued) <i>Arnab Bhowmick, AAKAVS AKTIVOV</i> <i>Tim Tice, OAWU</i> W/WW	Heritage I Hydrants Proper maintenance procedures and testing of fire hydrants. <i>Joe Rowinski, Core and Main</i> W	Heritage II The Santiam Canyon recovery from the Beachie Creek and Lions Head Fires and effect on the North Santiam Sewer Project The effect on the water system in the North Santiam Canyon, the recovery, and the effect that the fire has on the progress of the North Santiam sewer district progress. Where are we now? <i>Danielle Gonzalez, Marion County Economic Development</i> W/WW
12:00 – 12:15 pm (0.025) Great Hall – Closing Session – Influential Leadership for Water and Wastewater Utilities: Continued. Jason Green, OAWU Executive Director. W/WW			