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2025 ANNUAL OREGON ONSITE WASTEWATER CONFERENCE
Riverhouse Lodge, Bend OR | March 20-22, 2025

FACING THE FUTURE Together

Unity, collaboration, and teamwork!

Sponsored by O2WA - www.o2wa.org/annual-conference



2025 Program - Classes | Schedule | List of Presenters – 1.2 CEUs

***Introduction and Help with the DEQ online license portal YDO** Get support and help with set-up or accessing **Your DEQ Online**, the portal to your DEQ license. DEQ license staff will be available throughout the conference to guide you. Bring your laptop or tablet or use one at the table and the staff will guide you through the process and send you home with what you need to make submittals and renew your license. Walk-up or by appointment DEQ will be here Thursday through Saturday.

Thursday, March 20, 2025

12:00 - 1:30	Registration Desk Open / Equipment Rodeo Check In / Exhibits Open / *DEQ available for Q&A Your DEQ Online
1:30 - 2:30 0.1 CEU	<p>Opening General Session Updates from Oregon's Department of Environmental Quality (DEQ) Onsite Program Progress, Challenges, and Next Steps Kiley Clamons, DEQ</p> <p>In this session, we will highlight the progress made in these areas over the past year, as well as the challenges we continue to face, and we will share our goals for the coming year. By working together, we aim to further strengthen Oregon's Onsite Wastewater Program and enhance our response to emerging challenges.</p>
2:45-3:45 0.1 CEU	<p>Inspecting and Troubleshooting Soil Treatment Systems</p> <p>Sara Heger, University of Minnesota Onsite Sewage Treatment Program</p> <p>This session will cover evaluating and inspecting soil treatment systems, including gravity and pressure distribution. As part of troubleshooting, we must evaluate the vegetation and depth of ponding. It will include a discussion on various distribution methods and the related development of a biomat. Problems associated with hydraulic and organic overload will be highlighted. Common device and product issues from within homes and businesses will be discussed.</p>
3:45-4:15	<p>Break / Exhibits Open / *DEQ available for Q&A Your DEQ Online / Pape' Machinery Overview of Equipment for Roe D' Hoe Contestants</p>
4:15 - 5:15 0.1 CEU	<p>Design, Installation and Management Considerations for Septic Systems Serving Vacation Home Rentals</p> <p>Sara Heger, University of Minnesota Onsite Sewage Treatment Program</p> <p>More of your customers may be renting out their vacation homes either part-time or full-time. The concern is overall increased hydraulic loading. Another is peak loading of water and cleaning products. The third concern is having renters who do not understand how septic systems work and the limitations and rules around proper use.</p>
5:15 – 6:30	Welcome Reception

Friday, March 21, 2025

7:00 – 8:00	<p>Registration Desk Open / Exhibits Open / Breakfast</p> <p>*DEQ available for Q&A Your DEQ Online / Equipment Roe D Hoe Sign Up at Pape' Machinery Booth</p>
8:00 - 8:15	Welcome and Introductory Remarks – O2WA President Edward Varga
8:30 - 9:30 0.1 CEU	
Track 1	<p>Lessons Learned from Commercial Sampling Sara Heger, University of Minnesota Onsite Sewage Treatment Program</p> <p>This presentation will include the equipment needed and provide instructions on how to take a good sample and the related timing. It will show case studies of commercial system sampled and range in data and related performance.</p>
Track 2	<p>Teamwork in Action: O&M Program Erin O'Connell, Columbia County & Kiley Clamons, DEQ</p> <p>Program development and showcase the proactive steps being taken to address these concerns, such as the O&M Task Force, the Project Start-up initiative, and rule changes that aim to improve process, accountability, and consistency.</p>
Track 3	<p>Math - Critical Equations for The Onsite Industry to Learn Micah Hozen, New Creations Contracting</p> <p>We will be discussing Math for Septic Installers, including Tank Volume, Reserve Volume, Gallons Per Inch, Float Settings, Setting and Shooting Grades, etc. Look forward to a lively debate on the pros and cons of using tenths or inches (metric?).</p>
9:40 - 10:40 0.1 CEU	
Track 1	<p>Water Tables - Definitions and Circumstances as They Apply in Oregon Brian Rabe, Elkhorn Consulting</p> <p>Oregon rules for Onsite Wastewater Treatment Systems define two types of water tables - temporary and permanent. This is different than how water tables are defined in other states. This presentation will dive into the details of each type and discuss circumstances where the distinction might not be so clear.</p>
Track 2	<p>Existing Septic System Report (ESER) Kevin Riddle, Sweet Water Sanitation</p> <p>Who can perform evaluations. What to look for before, during and after pumping, how to fill out the ESER, examples of ESER's, Lid safety. Q and A.</p>

10:40–11:00	Break / Exhibit Hall Open / *DEQ available for Q&A Your DEQ Online / Pape’ Machinery Overview of Equipment for Roe D’ Hoe Contestants
11:00 - 12:00 0.1 CEU	
Track 1	Challenging Wastewater Streams Sara Heger, University of Minnesota Onsite Sewage Treatment Program This presentation will discuss research projects related to RV parks, convenience stores, water softening salts, home kidney dialysis, state parks shower houses and dump stations.
Track 2	Funding Options for Homeowners for Repair and Replacement Systems Heather Nielsen, Clackamas Soil and Water Conservation District & Lacey Ogle & Tawny Read, Craft3 Review funding options, including local options as well as statewide assistance options with Craft3. Participants should come with questions and any resources they have found.
12:00 – 1:30	Exhibit Hall Open / Lunch / Roe D Hoe Competition Sponsored by Pape’ Machinery / *DEQ available for Q&A Your DEQ Online
1:30 – 2:30 0.1 CEU	
Track 1	Septic Tank Sizing – Bigger is Better Sara Heger, University of Minnesota Onsite Sewage Treatment Program The presentation will highlight hydraulic retention time in relation to the settling and storage of sludge and scum. Additionally, the importance of ensuring watertightness, providing access, and the need for secondary protection in access risers will be covered.
Track 2	System Troubleshooting Dialog Scott Hammerschmith, Orenco Systems Common troubleshooting problems for onsite systems with examples of how to read wiring diagrams and troubleshoot relays.
2:40 – 3:40 0.1 CEU	
Track 1	Simplification Of Conventional Construction Methods Ajay Chudasama, Topcon’s MC-Mobile Solution This class focuses on the simplification of conventional construction methods with the use of an easy to operate layout + machine control software that will help finish projects quicker while maintaining quality.
Track 2	Septic Jeopardy - Interactive and Competitive Game James Erlei & Doug Dille, Fergeson Waterworks Brian Rabe – Rules & Referee Contestants will be answering questions by categories covering pumping, design, maintenance, installation, components.
3:40 – 4:10	Break / Exhibit Hall Open / *DEQ available for Q&A Your DEQ Online
4:10 – 5:10 0.1 CEU	General Session - Tools to Educate Property Owners - Sara Heger, University of Minnesota Onsite Sewage Treatment Program How do we educate septic system owners? Over the last several years the University of Minnesota along with partners has offered in-person and webinar training events during Septic Smart Week to educate property owners. With EPA funding NOWRA developed interactive homeowner/public training for septic system owners and the public with best management resource for property owners to keep their septic systems functioning properly. Focus on the importance of wastewater treatment, an overview of treatment in an onsite system, typical onsite system features, final treatment and dispersal, management, maintenance, safety, and system troubleshooting.
5:30 – 9:00	Reception / Annual Members Meeting & NOWRA Update / Dinner / Roe D Hoe Awards / Auction
Saturday, March 22, 2025	
7:00 – 8:30	Registration Desk Open Exhibits Open / Breakfast / *DEQ available for Q&A Your DEQ Online
8:30 - 9:30 0.1 CEU	
Track 1	Design Solution for Septic Contractors Ajay Chudasama, Topcon’s MC-Mobile Solution Septic design through software that allows you to calculate material quantities, eliminate bottlenecks within your processes, and will integrate with your existing machines to achieve maximum cost and time efficiency without sacrificing quality. This presentation will focus on how this technology will improve your current workflows which can benefit everything from return on your investment to using your crew to their fullest potential.
Track 2	Maintenance, Nitrogen Reduction Joe Rebori, Bio-Microbics Introductory concepts for wastewater treatment with examples of how they are applied to septic systems, including retention time, mass load, dosing, and practical understanding of how solid and dissolved contaminants are removed from wastewater.
9:40 - 10:40 0.1 CEU	
Track 1	AXRT Design / Installation / O & M Steve Sinks, Orenco Systems Cover Homeowner and Preconstructions Meetings, System Location, Design Consideration and System Model Selection. Treatment data and UV disinfection requirements. Installation requirements, antibuoyancy requirements & recommendation.
Track 2	Calibration How, Why and What Steve Rose, Septic Technologies Discussing the importance of proper pump calibration, where to get tank dimensions, various calibration techniques, and how to use the data.
Track 3	Soils Structure for Oregon Installers Kimberlee Aldrich, Marion County What soil’s structure is, what does it mean to us, and how does it come into sizing a septic system.
10:40-11:00	Break / Exhibit Hall Open / *DEQ available for Q&A Your DEQ Online
11:00-12:00 0.1 CEU	
Track 1	Everything ODOT Paula Hartland, Oregon DOT Regulation review for safe on-highway operation of your CMV’s and record keeping requirements.
Track 2	Q&A Design Best Practices Round Table Brannon Lamp, Aqua Resource Design & Consulting
Track 3	Fire & Septic Systems Kimberlee Aldrich / Danielle Brown, Marion County 2020 Beechie Creek/Lionshead - What happened, how did we organize, what we would do differently and how we financed it.
12:00 – 1:30 0.1 CEU	Lunch Closing General Session – Oregon Onsite Wastewater Updates, Initiatives plus 2025 Legislation Impacting the Onsite Industry Edward Varga, E&A Systems, O2WA President It's the collective effort that drives progress and innovation within the industry. This talk will cover O2WA Position on Tank & Lid Safety and other initiatives impacting the industry.
1:30	Closing Remarks – Edward Varga, O2WA President - Turn in your QUIZ for CEU’s Certificate

NOTE: Schedule, Speakers and Topics subject to change without notification.

Presenters

Kimberlee Aldrich, Marion County - Septic Inspector for 20+ years, Marion County, Yamhill County and Linn County. Bachelor of Science in Crop and Soil Science, Soil Resource Management Option with a couple of minors, Previous O2WA Board Member, and President.

Danielle Brown, Marion County - Onsite Inspector for 1.5yrs for Marion County. Bachelor of Science in General Chemistry from Cal Poly Humboldt. O2WA Board Member since 2024. Member of OEHA since 2023. Member of ACS since 2019. Marion County Wildfire Recovery Residential Septic Grant Coordinator.

Ajay Chudasama, Field Sales Specialist, Compact Solutions, Topcon Positioning Systems, Inc. Ajay is located in Livermore, CA. He has 3 years of experience with Topcon Professional Services performing technical Support & Training. He then moved into his current role as a Field Sales Specialist for Topcon Compact Solutions products. Topcon is known as one of the global leaders in technology by offering cutting-edge and proprietary products such as automation of construction processes for excavators for safe and efficient excavator operation.

Kiley Clamons, DEQ - Kiley received a B.S. in Journalism and Communication Studies from the University of Oregon before earning a M.S. in Environmental Science and Engineering from the Colorado School of Mines, where she focused her study on onsite water and wastewater treatment. After working as an Onsite Wastewater Specialist for Deschutes County for 7 years, she joined Oregon DEQ in April 2024 as the Training and Natural Disaster Preparedness Specialist. Kiley is a co-chair of the Oregon DEQ O&M Task Force.

Doug Dilley, Ferguson Waterworks has been an onsite supplier supplying onsite products for residential and commercial systems for about 16 years.

James Erlei, Ferguson Waterworks onsite supplier supplying onsite products for residential and commercial systems 25 years.

Scott Hammerschmith, Orenco Systems - Scott Hammerschmith joined Orenco Systems in 2005 and currently serves as an R&D Engineer Tech. He has been instrumental in the Oregon launch of Orenco's AdvanTex product line, and in the field training for residential AdvanTex installers and service providers in Oregon and around the nation. In fact, Scott has led the development of the Oregon Service Provider network. Now, he works on new technologies and refining existing technologies to continue to improve the solutions for the onsite industry. Scott earned his associate's degree in applied science from Umpqua Community College and has worked as a contractor doing site work, excavations, wastewater system installations, and general construction.

Paula Hartland, Oregon DOT - Paula has been with the DOT in the Motor Carrier Unit for 27 years. Starting out in Registration Services, then moving on to Safety and Training where she conducts compliance reviews, crash investigations, truck inspections and federal training programs.

Sara Heger, University of Minnesota Onsite Sewage Treatment Program Dr. Sara Heger is a researcher and instructor at the University of Minnesota in the Onsite Sewage Treatment Program, where she is faculty in the Water Resources Science program. Sara is the past president of the National Onsite Wastewater Recycling Association. For over 20 years, she has been conducting research and providing education and technical assistance to students, homeowners, small communities, onsite professionals, and local government units regarding decentralized onsite wastewater treatment. Sara coordinates the research program at the University of Minnesota and authors monthly articles in the Onsite Installer and Pumper magazine. Dr. Heger serves on the NSF International Committee on Wastewater Treatment Systems and chairs Minnesota's Septic System Advisory Committee. She has a BS in Biosystems & Agricultural Engineering and a MS and PhD in Water Resource Science.

Micah Hozen, Owner, New Creation Contracting. Has 20+ years' experience in Construction as well as almost 10 years in Architectural Design. Currently owns and operates New Creation Contracting, specializing in Septic Design and Installation. He is a Licensed Contractor, Certified Septic Installer, as well as having a Limited Electrical License. Micah is also an instructor at Chemeketa Community College and presents the new and improved 2-day Septic Installers Certification Class.

Brannon Lamp, Aqua Resource Design & Consulting, LLC Brannon started working in the industry in 1999 and is a Registered Environmental Health Specialist (REHS) in Oregon and a Certified O&M Provider. He is also a Licensed Designer in Washington State. In his spare time, Brannon enjoys hiking and backpacking, and plays golf marginally. He resides on the North Oregon Coast.

Heather Nielsen, Clackamas Soil and Water Conservation District manages the Septic Repair and Replacement program at the Conservation District. This program offers no-interest loans through DEQ's Clean Water State Revolving Fund. Heather also manages other loans at the Conservation District. She was previously a regulator and has 7 years of experience in the septic industry.

Erin O'Connell, Columbia County Erin is a Registered Environmental Health Specialist and has 16 years of experience working in the Onsite Septic Program for Columbia County Land Development Services. Erin's primary responsibility is coordinating all aspects of the Onsite Program including Operation and Maintenance annual report tracking and the issuance of permits requiring O&M contracts. Erin is a co-chair of the Oregon DEQ O&M Task Force.

Lacey Ogle, Craft3 - She came to Craft3 in 2023 from a mortgage company, prior to which she worked in marketing and publishing. Born and raised in the Pacific Northwest, she was excited to join Craft3 and serve communities she cares deeply about.

Brian Rabe, Elkhorn Consulting - Certified Professional Soil Scientist and registered Wastewater Specialist with over 38 years of experience in the onsite wastewater field almost exclusively as a private consultant. Mr. Rabe worked for Valley Science and Engineering (formerly Cascade Earth Sciences) for over 35 years before retiring from full-time consulting in October of 2022. Since that time, he has been consulting as a sole proprietor on a somewhat less than full-time basis as Elkhorn Consulting LLC from his new home outside Baker City. When not working on projects, he tries to spend as much time as possible outside working on stewardship projects at his family's Tree Farm, hunting, camping, hiking, or exploring new places both near and far.

Tawny Read, Craft3 - Tawny joined Craft3 in 2016, after working as a banker with Umpqua Bank and Butte Community Bank. Tawny oversees the consumer lending team. This gives her ample opportunity to witness the impact Craft3's mission-focused lending can have. "A septic system replacement loan not only helps a family stay healthy and happy in their home, but it also employs local contractors, and keeps waterways clean for our neighbors and native animals to enjoy and thrive!"

Joe Rebori Bio-Microbics is the Assistant VP of Inquiries, Engineering, & Regulatory Affairs for BioMicrobics. He works with BioMicrobics' distributors, septic designers, and engineers to advise on the use of onsite wastewater treatment systems in commercial and high-strength waste applications. His focus is in fixed-film and membrane bioreactor process technologies. He also assists a global customer base with residential wastewater, greywater, and stormwater products.

Kevin Riddle, Sweet Water Sanitation, LLC Owner of two septic companies with over 20 years in the industry. Kevin serves as the O2WA Board member in the Pumper Seat. Kevin is also a Licensed Septic Inspector and Installer.

Steve Rose, Septic Technologies Works for Septic Technologies a division of Best Pots Inc. I have been in the wastewater industry for 23 years and am currently one of the Instructors for the Maintenance Certification Cours through CCC, O2WA and DEQ. I am certified to operate all of the treatment systems registered in Oregon and Washington as well as Nibbler and Drip drain fields. I specialize in commercial wastewater system management.

Steve Sinks Orenco Systems has worked with Orenco for 25 years. He has worked in many departments over the years including the Electrical Engineering Department, Orenco Pump Department, Supervisor of Electrical OEM Panel Shop and Ocenco Sales Department. Before coming to Orenco he worked for the Department of Defense and is a veteran of the United States Marine Corps.

Edward Varga, E&A Systems, O2WA President - has over 2 decades in the industry. It started back in 2000 with an oversized cap-n-fill system. Over the last 20+ years Eddie has gone from designing onsite disposal systems, installing them, and maintaining them as well. He holds an Installers Certification, Maintenance Certification, Limited Plumbers License, and the Limited Electrical License. He has been blessed with an Amazing Wife, Andreea which he met in 2013, who collaborates with me Designing, Installing, and Maintaining the Onsite systems we service. They have both been blessed with 2 Amazing daughters, Sephora and Antonia, who one day hope is they work in the industry and be able to be a blessing to the industry. Over the past couple of years, he has been on the O2WA board as the installer's representative, and then also the Vice President/President Elect. of the O2WA. Within the last year Eddie has been working towards and has become one of the Instructors at Chemeketa Community College and presents the new and improved 2-day Installers Certification Class. Looking forward to a great future and a positive attitude from the entire Wastewater Industry to work together and to improve our outreach across Oregon and as far as our wings can spread to move the Wastewater Industry forward to achieve newer heights and better outcomes.