

## Summer Issue 2018



70 SW Century Dr.  
Suite 100, #353  
Bend, Oregon 97702  
(541)389-6692  
[www.O2WA.org](http://www.O2WA.org)  
[info@O2WA.org](mailto:info@O2WA.org)

### INSIDE THIS ISSUE

Presidents Message

Q&A

Scholarship Update

SEPTICSMART Take Aways

Submitting a Quality Septic  
Plot Plan

AdvanTex® with UV Allows  
Surface Discharge in North  
Carolina

Soils on the Horizon

NOWRA Online CEIs

4th Annual Fall Educational  
Conference

### O2WA Officers

President  
Trent Clinkscales  
Vice President  
Larry O'Connor  
Secretary  
Chris Rhodaback  
Treasurer  
Scott Davis

### O2WA Board of Directors & Volunteers

Septic Tank Pumper  
Trent Clinkscales  
Engineer  
Dennis Boeger, P.E.  
Manufacturer  
Larry O'Connor  
Soil Scientist  
Brian Rabe, CPSS, WWS  
Installer  
Perry Dunlap  
Sanitarian  
Robert F. Sweeney, REHS  
Tank Mfg  
Scott Davis  
O&M  
Dustin Kenton  
County Regulator  
Claudia Hill, REHS  
Industry at Large  
Pat McVay  
DEQ Exofficio  
Randy Trox, REHS  
Executive Director  
Belinda Rasmussen, CMM  
Newsletter Editor  
Lorry Clinkscales  
Leg. Chair  
Robert Sweeney

# WHAT YOU NEED WHERE AND WHEN YOU NEED IT



**competitive prices.  
unmatched value.  
quality products.  
added service.**

We are positioned to take your project to the next level with the industry's best products and know-how.

Discover how we can work together to get it done for your business at: [www.hdfowler.com](http://www.hdfowler.com)

HD Fowler Company is the oldest and largest independent, family-owned distributor of waterworks, irrigation, pumps and wastewater treatment equipment in the Pacific Northwest, and one of the largest in America.



**H.D. FOWLER  
COMPANY**

much more than pipe, valves, and fittings

**OREGON**  
Eugene 541-607-0081  
Medford 541-770-4432  
Redmond 541-923-2090  
Wilsonville 503-783-3490

**WASHINGTON**  
Bellevue 425-746-8400  
Bellingham 360-734-8400  
Bremerton 360-377-4507  
Marysville 360-651-2400  
Olympia 360-459-7300  
Pacific 253-863-8600  
Pasco 509-545-0255  
Spokane 509-568-8400  
Vancouver 360-574-9377  
Wenatchee 509-886-8804  
Yakima 509-248-8400

**IDAHO**  
Boise 208-846-8366  
Hayden 208-772-9060  
Idaho Falls 208-522-3466  
Twin Falls 208-734-8838

**MONTANA**  
Bozeman 406-388-1169

over 100 years strong

## REGISTRATION OPEN 4TH ANNUAL FALL MINI CONFERENCE

[www.o2wa.org](http://www.o2wa.org)

NOVEMBER 3, 2018

EARN 0.6 CEUS

MILL CASINO - 3201 TREMONT AVENUE, NORTH BEND, OR 97459  
(NEAR COOS BAY ON THE SOUTHERN OREGON COAST)



SAVE THE DATE

ANNUAL OREGON ONSITE WASTEWATER CONFERENCE & TRADESHOW

APRIL 5 & 6, 2019

RIVERHOUSE ON THE DESCHUTES  
BEND, OR

12 CEUS PLUS A BIGGER TRADESHOW!



## President's Message - Trent Clinkscales

**Presidents message, summer 2018**

**Hello industry professionals,**

**I hope you have been having a profitable season. While you have been digging in the heat and smoke, your board and volunteers have been busy doing our best to provide you with value for your membership dollars.**

**Probably the biggest accomplishment has been the overhaul and rewrite of the installer program and manual. Many thanks to Chris Rhodaback, Dustin Kenton, Brannon Lamp, Dan Buss, Pat Mc Vey, Brian Rabe and Bob Anderson.**

**Bob Sweeny has been reviewing our legislative priorities. Looking back from previous Technical Review Committee reports and looking at our Time of Transfer program. With help from John Audley of Craft3 and the board, he is pursuing our next plan of action.**

**November 3rd, 2018 is the fall conference. We will be back at The Mill Casino in North Bend. Your speaker line up will be Dennis Boeger, Brannon Lamp, Marty Easter, Scott Hammerschmith and myself.**

**The Governor of Oregon has proclaimed September 17th through the 21st Septic Smart week. You can download promotional material from the EPA's website. [epa.gov/septic/septic-smart-week](http://epa.gov/septic/septic-smart-week) This is great content for your social media pages. I would encourage you to use this as an opportunity to educate your customers and potential customers.**

**Larry O'Connor, Brian Rabe and Claudia Hill made up the Scholarship Committee this year. Brian will have the details for you in this newsletter.**

**Last but not least, we now have access and OESAC approval to use NOWRA's Online Learning Academy and the A to Z class. To find the courses click the link on the front page of the association website, [O2WA.org](http://O2WA.org)**

**Thank you for being loyal members and remember we are always looking for volunteers. It doesn't need to be a major commitment. There are many special projects that need committee members. Often these projects only last a few months. Contact myself at [trent@clinkscalestoilets.com](mailto:trent@clinkscalestoilets.com) or Belinda at the O2WA Office 541-389-6692. Trent Clinkscales**



## Q&A by Brian Rabe, CPSS, WWS

**Q/A**

**Question: I have a new system with one of those fancy control panels with the computer in it, but I recently discovered sewage oozing out around the lid on my dosing tank and there was no alarm. I started to panic. What is happening?**

**Answer: The first thing to do is make sure there is power to the panel. If so, a person should be able to turn the pump on manually for a short period of time to alleviate the immediate problem. The next step would be to call your certified operations and maintenance service provider. If you do not have one, then call either the installer or the designer. There have been a few control panels that require a software update. The display on the faulty panels will not respond. In at least some cases, just as you described, the system will not function at all. This is apparently triggered by time (50 days or so of continuous power). If this is the case, an interim measure is to cycle the power to the control panel (turn the circuit breaker to the controls off for about 10 seconds, then turn it back on). This resets the clock and restores normal panel function. However, the software update is required to prevent the condition from reoccurring.**

## SCHOLARSHIP UPDATE

The Oregon Onsite Wastewater Association Scholarship Fund received applications from six students this year. The applications were scored by the Scholarship Committee and awards totaling \$12,000 were recommended and approved by the Board of Directors. The following is a brief introduction to the students.

**Kaylah Bennett** – Kaylah is the daughter of an O<sub>2</sub>WA member and will be studying to be a veterinarian technician at Clackamas Community College

**Lilian Iverson** – Lilian will be a sophomore in the environmental engineering program at Oregon State University

**Samantha Halseth** – Samantha is the daughter of an O<sub>2</sub>WA member and will be studying nursing at Grand Canyon University

**Kylee Humphreys** – Kylee is the daughter of an O<sub>2</sub>WA member and is a junior at Saint Louis University studying health sciences with a minor in biology

**Harley Gilpin** – Harley is the son of an O<sub>2</sub>WA member, is a senior at Northwest Christian University studying business management. Harley has been working for his dad installing systems during the summer and intends to put his education to use when he returns to the family business after graduation.

**Valentin Medrano Monzon** – Valentin is in the environmental engineering program at Oregon State University

Congratulations to these students and many thanks to the generous contributions from our donors and bidders. Among our past scholarship recipients, Priscilla Woolverton works in the Western Region Watershed/Stormwater Program at the DEQ and Rebecca Oakeson works in the Onsite Program at Marion County. Both Priscilla and Rebecca received degrees in soil science from Oregon State University.

## SEPTICSMART WEEK TAKE AWAYS



Governor Kate Brown declared September 17-24 SepticSmart Week!

Thank you to the members that took the time to help educate Oregonians about the importance of septic systems, septic system inspections and proper septic system maintenance. Email the office with your SepticSmart Story - [info@o2wa.org](mailto:info@o2wa.org)

**O2WA Billboard Updated...**Billboards are electronic and placed in various parts of Oregon based on availability.

**September 25th O2WA Board Members** were able to meet with Legislators regarding recommendations to the 454.607 Policy.

The O2WA agreed that the following recommendations would be presented to the legislators to consider making changes:

- **Improvements:** Add "treatment and reuse or"
- **Beneficial Uses.** Add "and highly treated effluent"
- **Limit Services by Government agents** benefitting specific property owners.
- **Fees.** Focus DEQ and Contract Agents work on Public Health Activities.

EPA is excited to let you all know that the long-awaited new SepticSmart posters, one for restroom facilities in parks, campgrounds, highway rest stops, etc, and the other for restaurants, that are served by septic systems, are now online! These posters help educate the user about what not to flush or put down the drain. They are located on the Septic Systems Outreach Toolkit, or you can use the links below for direct access, and share with anyone who might be interested.



## ADVANTEX® WITH UV ALLOWS SURFACE DISCHARGE IN NORTH CAROLINA

In a residential area outside Chapel Hill, North Carolina, homeowners had an existing conventional septic system with a drainfield that dispersed into poor soils. When the drainfield failed, the lot was too small to put in a new one, and sewer service wasn't available.

The homeowners were extremely concerned because they would not be able to stay in their home without a functioning drainfield. The North Carolina Department of Water Quality (DWQ) wanted to help the homeowners find a solution. However, to maintain public health, the DWQ had to ensure that any new system could meet local NPDES (National Pollutant Discharge Elimination System) standards.

The homeowners asked engineer Kevin Davidson of Agri-Waste Technology to come up with a solution. Working with Todd Harrell, Orenco's Area Sales Manager, Davidson suggested to the DWQ that the homeowners install an AdvanTex AX20-RT unit with UV disinfection. This would provide an extremely high level of wastewater treatment through use of a packed-bed media filter and ultraviolet disinfection, a combination which would clean the wastewater to better than secondary treatment standards.\* Treated effluent from the system was expected to meet NPDES permit limits for surface discharge into a ditch or body of water (< 30 mg/L BOD5 and TSS; < 200 cfu/mL fecal coliform), eliminating the need for a drainfield. The DWQ approved the permit – the first time an AX-RT unit was approved for surface discharge in the state of North Carolina.

According to Harrell, "The AX-RT is great for these repair projects because you can just drop it in behind the existing equipment, even if the equipment is not Orenco's." Davidson was able to design the new system using the homeowner's septic tank, and the AX-RT's configuration eliminated the need for a discharge tank, separate UV basin, and several risers and lids.

After purchasing equipment from AQWA, Orenco's local dealer, the entire installation — including all electrical, plumbing, drainage, and landscaping work — was completed in only three days. An Orenco® Biotube® Effluent Filter was placed in front of the septic tank's outlet, and the AX-RT unit was installed behind the tank. The system discharges directly to a drainage ditch on the property.

AX-RT's are passively vented and use only \$2-\$3 per month in electricity. The system is maintainable with an annual service call because filters are easily accessible and, as Davidson notes, UV sensors are integrated into the control panel, so the service provider can tell if the bulb is working without having to pull it out. Cleanable media and a high-quality effluent pump that lasts 20+ years contribute to low life cycle costs.

With the success of this project, Davidson is now working on 10 other AdvanTex systems, most of which are using AdvanTex AX-RT units to allow for direct discharge. "I think the AX-RT is the best unit, when you look at aesthetics, installation cost, ability to treat waste, and support from Orenco," said Davidson. "Compared to other technologies, I would grade Orenco at the top."

\*NSF® International Standard 40 Evaluation Report, April 2002. (Evaluation performed by NovaTec Consultants, Inc.)



I was once asked by a local regulator, as we discussed the potential of a particularly challenging lot, “Is there no site you wouldn’t ask for an approval on?” It was somewhat of a rhetorical question because he knew me well enough to know the answer. However, this very small lot had a lot of limitations and required careful thought and significant modification to get there.

Although the rules do not account for all the potential scenarios we encounter in the field, they are meant to be a prescriptive guide that is intended to provide consistency for regulators and the regulated public. When sites don’t meet the criteria in the rules, the formal variance process is the primary means of seeking an approval. The standard for approval is to put forth specific steps, either by design or site modification, that will mitigate the conditions where the conditions do not meet the rules. The intent is to demonstrate that approval will at least as protective of public health and the environment as a similar site that meets the rules. This often requires using the highest level of treatment with the most effective, consistent, and reliable equipment available.

Sites are denied any time that the area evaluated does not meet the rules. Most sites that are denied are based on fundamental characteristics, such as limited space, shallow water tables, shallow soils, or a combination of these factors. The more limitations the site has the tougher it is to achieve an approval. Sometimes there is an opportunity on larger sites to dig more test holes within a limited period of time to see if another area is approvable. Sometimes the site can be dewatered. Sometimes the site can be modified with a carefully designed and installed fill.

My perspective when approaching a site with these kinds of challenges is to consider carefully how the effluent will move as it leaves the drainfield trench. For example, if there is a potential for the effluent to surface, will it be far enough away to meet the setback criteria in the rules? If not, the site may need to be modified or the treatment process may need stepped up to provide a comparable level of protection.

There have been a number of times when prospective clients have approached me with sites that would be impossible or impractical to get an approval. One recent example was a very small lot that had indications of a fluctuating permanent water table to the ground surface in an area with highly permeable soils. There wasn’t enough space to accomplish the kind of site modification that would have been necessary. Likewise, that degree of modification would have been very expensive and the value of the lot would not likely justify the cost. Another recent example involved a potentially large commercial development. However, the site has a long history of disturbance and modification that would adversely affect the ability of the soil to perform its intended function. Development of that site will need to either be scaled way back or hope that it gets annexed into the nearby city with an extension of the municipal sewer system.

That is it for now. Remember, Soil Rocks!

---



## 8 hr Overview

### New! A Convenient New Option to Get the Education You Need

Whether you are new to the onsite/decentralized industry or continuing your professional development, you have come to the right place! Taught by experts in the industry, NOWRA’s Online Learning Academy offerings cover the fundamentals of the profession as well as advanced training in multiple topics.

---

Initially four training courses are being offered, each developed from a national perspective. NOWRA intends to add more courses in the coming months, and we expect many of NOWRA’s affiliated state onsite associations will also be offering courses which meet specific state training requirements.

**APPROVED FOR OREGON DEQ CEUs - Go online for more information and to take courses**  
<http://www.nowra.org/content.asp?pl=28&sl=362&contentid=362>



**REGISTRATION OPEN - Annual Fall Mini Conference**  
**November 3, 2018**  
**Mill Casino - 3201 Tremont Avenue, North Bend, OR 97459**  
**REGISTER ONLINE AT [www.o2wa.org](http://www.o2wa.org)**

This conference is for industry professionals including public health officials, O&M service providers, engineers, consultants, installation contractors, septic pumpers, and others interested in onsite wastewater management. You will learn about the latest in onsite wastewater industry issues and approaches to onsite wastewater management.

Conference includes Friday welcome reception, classes, breakfast, lunch and time with exhibitors. Each individual will receive a certificate of proof of attendance at the conclusion of this conference. Maximum number of CEUs available are 0.6.

**CONFERENCE SCHEDULE**

**FRIDAY**

**6:00 p.m. – 7:00 p.m. Welcome Reception with Exhibitors**

**SATURDAY**

**7:30 a.m. Registration Open & Attendees Sign In & Breakfast with Exhibitors**

**8:15 a.m. – 8:30 a.m. Welcome and Orientation**

**8:30 a.m. - 9:30 a.m. E-Permitting 101 and Beyond - Description:** Learn tips and tricks about the new E-Permitting website to make applying, tracking, and completing sites much easier. If you have headaches about your county going to the new E-Permitting database then come by and learn the ins and outs.

**Presented by:** Marty Easter, Registered Environmental Health Specialist, Oregon Department of Environmental Quality

**9:40 a.m. - 10:40 a.m. The Basics of Onsite System Layout, Design, & Installation - A holistic understanding of On-site Wastewater Treatment (Septic) Systems** requires one to look beyond the system itself, and to the source(s) of the inputs, as well as the surrounding environment. Only then can a practitioner look at the system itself to better understand why a system functions as it does, and under certain conditions, may function poorly. Often, when troubleshooting a system, we are investigating the wrong elements altogether. The goal of this presentation is to expand our understanding and to better stock our 'toolkit' as professionals.

**Presented by:** Brannon Lamp, REHS, Aqua Resource Design & Consulting

**11:00 a.m. - 12:00 p.m. Why ATT Systems? - The "Why ATT Systems?"** course discusses operation of primary septic tanks, drain field sizing/layout for "standard" systems, operation and effluent quality of secondary treatment systems, needs for treatment, and drain field sizing behind secondary treatment. The presentation uses excerpts from OAR341-071 and we discuss how and why the secondary treatment systems effect drain field sizing and approvals. A short Q&A session is provided after the presentation.

**Presented by:** Scott Hammerschmith, Orenco Systems

**12:00 p.m. – 1:00 p.m. Lunch**

**1:00 p.m. - 2:00 p.m. Round Table Discussion Regarding ATT Systems and Q&A**

**2:20 p.m. - 3:20 p.m. Pumper Best Practices - Share ideas on day to day practices to improve service quality and encourage a safe work environment.** **Presented by:** Trent Clinkscales,

**3:20 p.m. – 4:20 p.m. - Design with O&M in Mind - This presentation** will share my experiences over the course of 25 years where the effectiveness of operation and maintenance of onsite systems is often based on the design approach implemented. Designers, Installers, and Service providers should benefit from the experiences and photos I will share of both effective and poor ways to develop an onsite system.

**Presented by** Dennis Boeger, PE, Boeger and Associates

**4:30 Conclusion**

**GUEST ROOM RESERVATIONS**

**Make your reservations by October 21<sup>st</sup> to receive the discounted rate.**

**Please contact the hotel for guest room reservations at 800-953-4800.**





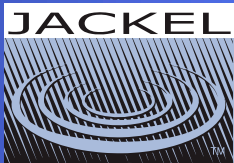
RepCo Sales Agency is a leading manufacturer's representative company servicing the Pacific Northwest. We offer a variety of products from some of the top manufacturers in the wastewater, drainage, and precast industry.



EFFLUENT PUMPS

SEWAGE PUMPS

GRINDER PUMPS



CHECK VALVES

SLIDE RAIL ASSEMBLIES

SUMP BASINS

SEPTIC LIDS

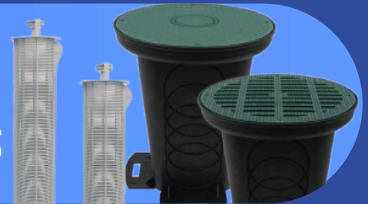


SEPTIC FILTERS

PUMP SYSTEMS

PRECAST ACCESSORIES

RISERS & LIDS



ALARMS

FLOATS

PUMP PANELS



WASTEFLOW DRIPLINE

BIODISC FILTER

HEADWORKS



503-720-7186



[www.repcosalesagency.com](http://www.repcosalesagency.com)



[sales@repcosalesagency.com](mailto:sales@repcosalesagency.com)



AIR PUMPS

