



I.N.F.O. Industry News for Oregon

Fall Issue 2018



Preparing Seasonal Septic Systems for Winter

**Remember to renew your
membership - Mail in or go online
www.o2wa.org**



2019 MEMBER

WWW.O2WA.ORG



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

INSIDE THIS ISSUE
Presidents Message

Q&A

**Preparing Seasonal Septic
Systems for Winter**

**Digitization of Onsite Septic
System Records**

**DEQ ends Grants Pass office
hours**

Soils on the Horizon

Raising Industry Standards

**Rules and Regulations For
Onsite Wastewater Treatment
Systems**

**New site allows users to
submit onsite applications
online**

**Onsite installer magazine
Check out the top 10 articles**

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

PRSR STD
US POSTAGE
PAID
BEND OR
PERMIT NO 473

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

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	
Bellvue	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



**OREGON ONSITE
WASTEWATER ASSOCIATION**
www.o2wa.org

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 Fall 2018

Wow! What a year it has been. Everyone I have talked to has been super busy and has struggled to keep up. With Thanksgiving having just passed as of this writing, we all have much to be thankful for. That being said, let's reflect on why we do what we do.

Sure we are providing essential services that keep people healthy and safe, and that is a great thing. However the real reason we go to work day after day, dealing with sometimes unpleasant job sites, customers that are difficult or equipment that causes you grief, is to provide for our family. To create a better life for our spouse and our children or grand children is the real reason we toil the summer away.

Often we are so busy doing the work that keeps our loved ones comfortable that we can't spend any quality time with them. Now that things are slowing down, take time to enjoy what you work so hard for. Take an afternoon off to spend time with your kids. Have a date night with your special someone. Take a moment for yourself to reflect on what you have achieved during the year, but more importantly, why you did it and continue to do it.

That's all I have.

Happy Holidays, Merry Christmas and Happy New Year!

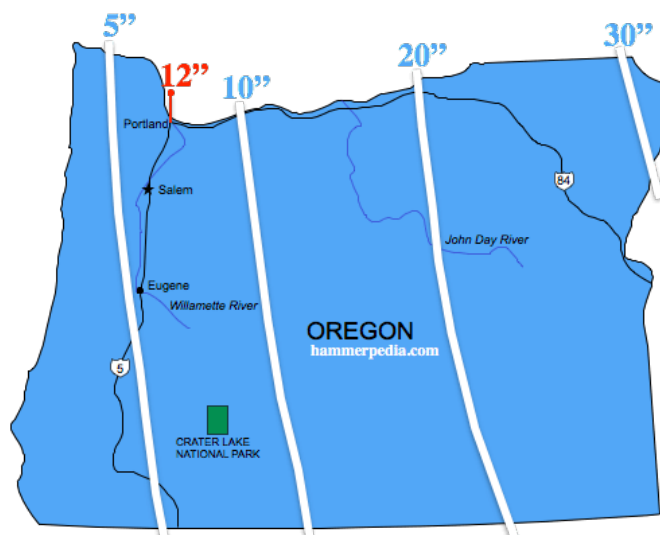


Q&A by Brian Rabe, CPSS, WWS

Q/A

Question: I am worried about my buried pipes freezing. How do I determine the frost depth in my area?

Answer: The answer can vary based on local building codes. However, a search of the internet can provide a good source of general guidance. The attached map was adapted by the City of Portland from a U.S. Department of Commerce map and shows frost line penetration (in inches) below the surface of an undisturbed soil profile.



Source: U.S. Department of Commerce, City of Portland

The depth will be greater if the site has been dramatically disturbed (filled, compacted, etc.). It is worth noting that rigid insulation can be substituted for cover depth (1" of rigid insulation substitutes for 12" of backfill depth). This can be an important consideration where pressure lines exit the riser at a depth shallower than the frost line.

PREPARING SEASONAL SEPTIC SYSTEMS FOR WINTER

Precautions taken in the fall can help prevent a frozen system — and avoid any surprises in the spring

By Sara Heger, Ph.D. October 25, 2018 - COLE Publishing, Inc.

In cold climates, many residences are seasonal. Shutting down a septic system for the winter is a vital task for seasonal homeowners to prolong the life of the system and to keep it operating at peak performance. Precautions taken in the fall can help prevent a frozen system. Here are tips to help your seasonal customers close up their septic system.

Remind homeowners that these winterizing tasks will help them avoid any surprises in the spring. It's also a good time for an inspection if the system is due for one, to make sure it's functioning properly before the home is closed up for the winter.

Winterizing the pipes

Do not add automotive antifreeze, salts or any other additives to your plumbing.

If you leave the water on for the winter, be very sure that there are no leaks or drips. This constant, low flow of water can cause septic system freezing. This is common with high-efficiency furnaces.



Even if the heat is left on, it is a good idea to drain water supply lines. Shut off the water where it enters the house and drain all lines. Drain the pump and then run a couple of seconds to be sure all water is out of the lines. Drain the system by opening all the faucets and leave them open. Completely drain the pressure tank. Flush toilets and add RV antifreeze to the tanks at the recommended dilution ratio. Check any flexible hoses in sinks and bathtubs to be sure they are drained completely. Remove and drain inlet hoses for the dishwasher and clothes washer. Clear the water valve by starting the machine for a few seconds, then drain the tub. Remove the drain hoses, and drain them completely. Disconnect the electrical supply to the pump, water heater, softener, washer and dishwasher. Drain the water heater and water softener with a hose after power is disconnected. RV antifreeze can be added to traps in sinks, bathtub and shower drains, washtubs, floor drains and sump pumps. In the spring, reconnect all hoses and flush the lines out before using again.

Furnace

If you have a high-efficiency furnace that is left on for the winter, be sure there is no water drip into your system. Freezing can result. Reroute the drip water to a floor drain, bucket or other source that does not enter the septic system at all, or enters in larger amounts. This water does not harm the septic system, but entering in very small amounts causes a trickle of water that can freeze more easily. If shutting off the furnace, drain all water from forced hot water and steam systems unless the system contains antifreeze. If that is the case, call a plumber for assistance. If the homeowner is leaving the furnace on, recommend that they conserve energy by installing a low-heat thermostat that will maintain the cabin at 40 to 50 degrees. It is also wise to open the doors of cabinets that have pipes in them so heat can get in. Pipes can also be insulated or wrapped with heat tape.

PREPARING SEASONAL SEPTIC SYSTEMS FOR WINTER CONT.

Septic system maintenance and pumping

Consider pumping the tank if the cabin will be closed for the winter, or if it will only be used a few times during the winter. If you live in an area with a high water table, you should only pump out the tank if the tank was designed for high water table conditions. If a tank is left full but the system is not used for the winter months, the sewage will get very cold and can even freeze. If the cabin is opened before temperatures in the soil start to rise, the effluent leaving the tank will be cold. By starting with an empty tank, you can then start fresh with warm effluent, which is desirable in the soil treatment area.

If you have an aerobic treatment unit the blower should be shut off if you will not be using the system. Follow any other manufacturer requirements.

Protect the soil treatment area

Advise homeowners to stop cutting the grass over the soil treatment area in mid-September or so. The extra grass length will help capture snow, providing insulation over the area. This can help prevent freezing. To help prevent septic systems from freezing, spread a layer of straw or leaves over the system to provide insulation.

Remind homeowners to keep all foot and vehicle traffic off the tank, pipes and soil treatment area (drainfield or mound). The only exception is the lawn mower. Snow should not be plowed off the area and plowed snow shouldn't be piled up over the drainfield.

About the author: Sara Heger, Ph.D., is an engineer, researcher and instructor in the Onsite Sewage Treatment Program in the Water Resources Center at the University of Minnesota. She presents at many local and national training events regarding the design, installation, and management of septic systems and related research. Heger is education chair of the Minnesota Onsite Wastewater Association and the National Onsite Wastewater Recycling Association, and she serves on the NSF International Committee on Wastewater Treatment Systems. Ask Heger questions about septic system maintenance and operation by sending an email to kim.peterson@colepublishing.com.

DIGITIZATION OF ONSITE SEPTIC SYSTEM RECORDS

ONSITE RECORDS AVAILABLE ONLINE

DEQ is digitizing onsite septic records for the 10 counties where it administers onsite septic system programs so they are available to the public online and without charge. The 10 counties that DEQ has septic system records for are Baker, Coos, Curry, Grant, Jackson, Josephine, Morrow, Union, Wallowa and Wheeler. All records should be available by spring 2019.

[See step-by-step instructions on how to search our database.](https://www.oregon.gov/deq/residential/pages/onsite.aspx)
<https://www.oregon.gov/deq/residential/pages/onsite.aspx>

DEQ ENDS GRANTS PASS OFFICE HOURS

With an increasing number of applications for septic systems being submitted online and an increasing number of septic system records available on DEQ's website, DEQ has ended office hours in Grants Pass. Those who need assistance in person can visit DEQ's Medford office, which is open Monday to Friday from 8 a.m. to noon and 1 to 5 p.m.

Several years ago I wrote about serial distribution systems from the perspective of comparing them to equal distribution or low pressure distribution. In the last couple months I have two different installers in different parts of the state make recommendations to customers with serial distribution systems that they should “block off” the top trench to let it rest and heal. This requires digging up the drop box and installing a plug that prevents flow to the top trench and directs flow through to the second drop box. I whole heartedly disagree with this practice for the following reasons.

Serial systems are designed to operate such that the top trench is always used – period. Once the biomat forms, the rate at which effluent leaves the trench is controlled by the biomat at what is referred to as the “long term acceptance rate” or LTAR. The LTAR will vary somewhat between different soils, but the biomat serves as a significant equalizer in terms of limiting the rate of flow into the surrounding soil.

For example, if the LTAR is 0.5 gallons per square foot per day, such as is reasonable for silt loam or clay loam soils, then the LTAR would be an estimated 1.0 gallons per linear foot assuming a 2-foot wide trench. If the top trench is 100 feet long, then the top trench is capable of releasing about 100 gallons per day to the surrounding soil. If the trench is full, then any septic tank effluent entering the trench at a rate greater than 100 gallons per day would be directed to the second trench. Assuming the second trench is also 100 feet long, once it gets full then any flow above 200 gallons per day (100 for the top trench and 100 for the second trench) would be directed to the third trench. Only when the last trench gets full is there any driving force to push effluent toward the surface (this is why serial distribution requires a minimum of 12 inches of cover instead of the 6-inch minimum for equal distribution).

The biomat not only serves as a flow regulator, but it is also a tremendously efficient biological treatment system. Several biologically-mediated treatment processes occur, as well as fine physical filtration of pathogenic organisms, as effluent passes through the biomat into the surrounding soil. Unless the surrounding soil is saturated from an elevated water table or the wetting front associated with rapid snowmelt or a prolonged storm event, the biomat assures that the partially treated effluent will pass through the surrounding soil in an unsaturated manner facilitating aerobic treatment.

There are circumstances where the function of the biomat can be adversely affected and may result in a reduced LTAR. These include abuses, such as excessive use of anti-bacterial or biologically unfriendly products, excessive amounts of fats, oils, and grease leaving the septic tank, or uncharacteristic waste (certain medications, industrial or hazardous waste constituents, etc.). In situations such as these, we need to work with the owner to determine the cause and develop a solution. Blocking off the top trench only serves to reduce the capacity of the system.

It is worth noting that a biomat is not expected to form in drainfields that follow an advanced treatment system. In fact, previously failing drainfields have often recovered after an advanced treatment system was installed ahead of them.

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.

RAISING INDUSTRY STANDARDS By Penny Dunlap

Perhaps the biggest challenge, the onsite industry faces, is getting its members to embrace continuing education and play an active role in educating others. While most states require continuing education courses for onsite professionals in order to maintain licensure, many do not understand the value of this additional training. We see this a lot when we attend training classes. The question most commonly asked is, "Why do I have to be here? We've been doing this forever, I don't need to be here."

Unfortunately, this mentality leads some contractors to preform subpar work. They prefer to stick with what they know or they opt for the quickest fix; without pausing to consider if it is the best solution or what problems it may create for the homeowner down the road.

The O2WA is working hard to provide education. Those contractors that actively participate in the classes and the organization are often among the best in their field. There is always new information to be learned, and there are a lot of innovations in the industry that are developing as people research and test equipment, soil and waste. Education plays a big part in showing quality of work. There is always room for more knowledge. I look forward to our different classes and the O2WA conference, to improve my knowledge and make me a better installer /service provider, because it's just like anything else: The more you know your job, the better you can do it.

RULES AND REGULATIONS FOR ONSITE WASTEWATER TREATMENT SYSTEMS

These rules establish requirements for the construction, alteration, repair, operation, and maintenance of onsite wastewater treatment systems. Their purpose is to restore and maintain the quality of public waters and to protect the public health and general welfare of the people of the State of Oregon.

Sign up for text or email updates via GovDelivery @
<https://www.oregon.gov/deq/Residential/Pages/Onsite-Rules.aspx>

NEW SITE ALLOWS USERS TO SUBMIT ONSITE APPLICATIONS ONLINE

You can now use your credit card to pay application fees for septic system permits, site evaluations, authorization notices, records requests or other onsite fees. This move is a further expansion of the onsite program's online offerings. Applicants can submit and track their applications and receive their permits online.

The online system allows users to create an account to track their applications and to pay invoices online. Check it out on the [Oregon e-Permitting page](#). DEQ offices also have public kiosks for those who don't have internet access or who want help with the process. A help desk is available to anyone who has questions.

It can be reached at oregonepermitting@oregon.gov or by calling 503-373-7396 or 1-800-442-7457.

ONSITE INSTALLER MAGAZINE CHECK OUT THE TOP ARTICLES

@ <https://www.onsiteinstaller.com/>

As the end of the year approaches, here's a recap of some of the top stories on www.onsiteinstaller.com. If you missed any of these, now is your chance to catch up. Enjoy this look back at 2018.

5. [Maguire Backhoe Meets Tough Onsite Challenges](#)

Getting the job done and pleasing homeowners occasionally involves solutions requiring some creative thinking.

4. [Frozen Waterlines: What to Do and What Not to Do](#)

Having customers continuously run water to thaw frozen waterlines and septic lines is not the answer.

3. [The Problem With Medications and Septic Systems](#)

High concentrations of antibiotics along with other pharmaceuticals and chemicals can kill or retard the growth of the anaerobic bacteria in the septic tank, pretreatment system and soil treatment area.

2. [Another Product That Could Harm Septic Systems](#)

If your customers are frequently indulging in the use of bath bombs, it could mean bad news for their onsite system.

1. [Dog Kennel and Vet Clinic Wastewater Treatment Recommendations](#)

If you are designing or installing a septic system for a facility that involves dog waste, care must be taken or the system may not last and adequately treat wastewater for the long term



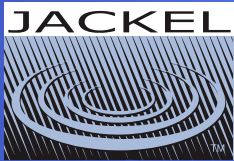
RepCo Sales Agency is a leading manufacturer's representative company servicing the Pacific Northwest. We offer a variety of products from some of the top manufacturers in the wastewater, drainage, and precast industry.

**Champion
Pump**

EFFLUENT PUMPS

SEWAGE PUMPS

GRINDER PUMPS



CHECK VALVES

SLIDE RAIL ASSEMBLIES

SUMP BASINS

SEPTIC LIDS

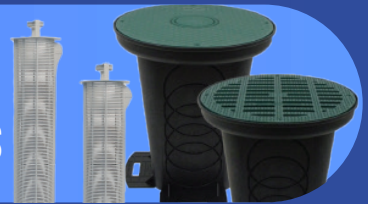


SEPTIC FILTERS

PUMP SYSTEMS

PRECAST ACCESSORIES

RISERS & LIDS



ALARMS

FLOATS

PUMP PANELS



**GEOFLOW
SUBSURFACE DRIP**

WASTEFLOW DRIPLINE

BIODISC FILTER

HEADWORKS



503-720-7186



www.repcosalesagency.com



sales@repcosalesagency.com



AIR PUMPS

