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The official publication of the National Onsite
Wastewater Recycling Association

THE Onsite Journal

Fall 2014

Meeting in Denver

NOWRA is getting industry professionals together in Denver for its annual conference, November 9-12. Do not miss out on this great networking and educational opportunity. As an added bonus, they have planned many exciting activities for attendees. Read more on page 7.

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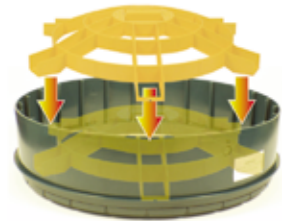
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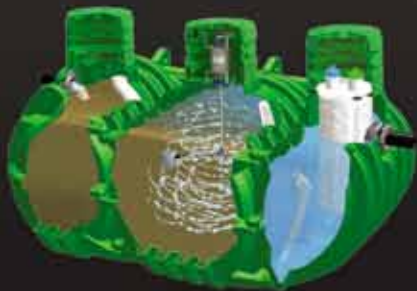
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on the cover

7 NOWRA & CPOW Join Forces

The National Onsite Wastewater Recycling Association (NOWRA) and Colorado Professionals in Onsite Wastewater (CPOW) are combining their annual conferences in order to provide educational and networking opportunities to their members.



9 NOWRA Leads the Industry to Federal Recognition

Over the past few months, NOWRA has been successfully advocating for the industry at the national level.



11 Inspection of Onsite Wastewater Systems at the Time of Sale

How system inspections benefit communities, the environment and home buyers.

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Change is the New Normal



NOWRA
National Onsite Wastewater
Recycling Association

IF you ask someone for their perception of the onsite industry, most would view it as the same old way of doing things. Many people are surprised that it is still being used on new home construction. A comment I've heard many times when asked what business I am in is, "They still use those?"

What many people believe about our industry, compared to the actual position our industry holds, has created two great challenges. The first challenge is to educate communities and decision makers across the country. Our industry serves a quarter of the country, 30 million homes, and is part of the solution toward creating jobs in the small business sector. The EPA has recognized onsite and decentralized systems as an important and permanent part of the national wastewater infrastructure.

Recently several NOWRA members hosted an educational trade fair on Capitol Hill to enlighten members of Congress and their staff about the important role our industry plays in wastewater treatment. This is made possible by retaining the firm of Arnall Golden Gregory, LLP to represent the onsite industry before Congress.

Another challenge we have is in the same category of education. Oddly, this challenge falls on our own shoulders.

When an industry changes as rapidly as ours, with new techniques and technologies being developed around every corner, it is difficult for many to grasp. Ironically, the same thing that causes this fear also opens the door of opportunity. What more could you want than a business where new and exciting products are being developed at every turn? This is the same environment that creates the opening for wider profit margins. Hmm... More fun and more money. Who could argue with that?

Yes, change is the new normal. And change has come because of the hard work of many who deserve much more credit than they often get.

On behalf of the entire NOWRA board of directors, I would like to offer my wholehearted thanks to all our members for your support and help over the past two years while I have been driving the bus. To the board, whose work and dedication too often goes unnoticed, I applaud you. At the risk of a subtle political statement, "It takes a village." Hard work and patience is the incubator of small associations. Thanks to the many hours that members have dedicated over the years, we are fulfilling goals that have been on the horizon for some time. 🌍

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NOWRA & CPOW

Join Forces

By Danelle Cloutier

THE National Onsite Wastewater Recycling Association (NOWRA) has partnered with Colorado Professionals in Onsite Wastewater (CPOW) to host the NOWRA-CPOW Annual Conference and Expo, which will serve as both organizations' annual conference.

The conference's theme is "Strengthening the Industry's Voice." It will be held at the Westin Westminster Hotel near Denver, CO. from November 9 to 12. Design, policy and technical sessions will offer insight into effective federal and state advocacy efforts, and provide networking opportunities. "The lineup that we have is one of the strongest we've had in years," says NOWRA executive director Eric Casey.

◦ "The lineup that we have is one of
◦ the strongest we've had in years."

Conference highlights include the design legends panel. Richard Otis, Bob Rubin and Robert Siegrist will bring their perspectives on designing decentralized wastewater treatment systems. "We probably have over 100 years of experience between the three of them," says Craig Gilbertson, co-chair of the conference planning committee. In addition, there is an education track covering advanced onsite system design. "We're getting manufacturers, designers, engineers and people who have been out in the field. It's not just speaking out of books; it's speaking out of case examples," says Gilbertson.

"The speakers at the conference will discuss how to design around issues on site, including actual design questions that people can apply themselves to," says Sara Heger, the conference's education chair. These sessions are even valuable for those who don't do design work. "It's important to be educated enough in design to ask questions while working on a project."

The conference is focusing on policy, which Gilbertson says fits with the theme. "Historically, the onsite wastewater industry has lacked the ►► 8



The media filter portion of the treatment system that will be visited on the field trip. Photo courtesy of SCG Enterprises, Inc.



The installation of an AdvanTex Treatment System at the gas station/auto parts store, which is part of the field trip. Photo courtesy of SCG Enterprises, Inc.

Conference Highlights

Advanced Treatment System Design Course: Teaches professionals to design advanced treatment systems.

Expo: The largest national trade show dedicated to onsite wastewater products and services.

Speed vending: Vendors have five minutes to describe their products and services to help conference attendees decide which trade show vendors to visit.

Annual business meeting: Share your thoughts on NOWRA's recent initiatives and learn what NOWRA hopes to accomplish in 2015.

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funds. The conference is trying to strengthen that, both from a political and education standpoint, so we can be an important voice for wastewater in the country." That is one of the reasons NOWRA hired lobbyist Thomas Cassidy.

Cassidy will provide an overview of NOWRA's lobbying initiatives, discussing what has been accomplished and the strategy going forward. He will also head up the "Advocacy at the State Level" workshop at the conference where he will discuss the elements of an effective lobbying effort and how to support local and national initiatives. Other presenters will describe their experiences in lobbying at the state level.

"I'm really excited about this particular conference in part because the focus on advocacy will move the industry forward," says Casey. "Whether they're affiliated with us or not, we're inviting state associations to participate in the workshop to help states become aware of what we're doing at the national level and to give them ideas about what they need to do to take advantage of the victories we hope to achieve."

With NOWRA's goal to help states lobby and CPOW's success last year urging Colorado to adopt onsite wastewater treatment systems regulation 43, the two make a powerhouse. "This is fantastic that CPOW has joined NOWRA to deliver this conference to our members and to educate them," says CPOW conference committee liaison Roger Shafer.

Shafer is organizing a field trip during which conference attendees will visit different sites, each presenting a specific solution to that location's unique characteristics. At each stop, engineers will talk about the location's onsite wastewater system and answer questions. "What I like best about it is getting exposure to how other areas deal with onsite wastewater," says Shafer.

The conference committee has also organized networking events, such as a welcoming reception in the hotel and an event at a local brewery. "The specific events are important, but the other thing that I think is always really, really valuable is the opportunity that people have to learn from one another—it takes place over lunches, dinners or informal conversations in hallways," says Casey. "The more we can do to foster that, the more successful the conference."

For more information and to register, visit www.nowra.org.

NOWRA Leads the Industry to Federal Recognition

By Meg Crane



Rep. Bob Gibbs made an appearance at the technology fair he sponsored.



Rep. Andy Barr dropped in to learn about onsite/decentralized wastewater systems.



A few members of NOWRA's lobbying team.

THE National Onsite Wastewater Recycling Association (NOWRA) is tired of the onsite wastewater recycling industry being virtually invisible.

"For many years, our industry has been pushed to the side. Basically ignored," says Robert Himshoot, chair of NOWRA's government relations committee. "Roughly 25 percent of the houses in the U.S. are served, and served well, by onsite wastewater treatment."

Himshoot says that in order for there to be change, each company and individual in the industry has to spread information about the benefits of the onsite/decentralized systems. "Everybody needs to be involved in the political process," stresses Himshoot. "NOWRA is stepping up to lead the effort to get more support from EPA [the Environmental Protection Agency] and Congress."

"I believe NOWRA is uniquely positioned to lobby at the federal level," says

Carl Thompson, a member of the NOWRA board of governors.

Thompson says that at a meeting late last year, NOWRA executives were discussing what was preventing them from playing a more significant role at the federal level. When it was clear that the biggest obstacle was a lack of funds, a number of companies and organizations were approached to lend financial support to the effort.

More than a dozen companies responded by committing to fund a lobbying campaign, and the association was off and running. There were two immediate tasks to undertake: hire a lobbyist to represent NOWRA before Congress and federal agencies, and set the goals for the lobbying initiative.

Thompson, Himshoot, NOWRA executive director Eric Casey and the lobbying campaign contributors created the following list of goals they wanted their lobbying initiatives to achieve:

More than a dozen companies responded by committing to fund a lobbying campaign, and the association was off and running.

- To increase the share of new housing construction where onsite/decentralized treatment is used, from 30 percent up to 35 percent, through legislation, regulation and policy development.
- To increase federal funding support for the onsite/decentralized industry for infrastructure repair and other important needs. Currently, onsite provides 25 percent of the United States' wastewater treatment, but benefits to a very small degree from federal wastewater funding.

►► 10

- Influence the Environmental Protection Agency to establish more policies favoring onsite/decentralized systems.

The hiring process to find someone capable of making this happen was extensive and exhausting. Association members wanted to make sure it had the perfect firm, and person, for the job. In the end, they chose Arnall Golden Gregory, LLP, which appointed Tommy Cassidy as its lead lobbyist. NOWRA is lucky to have Cassidy and his more than 30 years of experience,

much of which focuses on the wastewater industry.

With Cassidy on board, NOWRA is already working hard toward reaching its goals. The association has already had a number of productive meetings so far, including one with Jon Pawlow, who serves as counsel to the Water Resources and Environment Subcommittee of the House Transportation and Infrastructure Committee, and another with Joe Price, who is the legislative director for Rep. Bob Gibbs, the

chairman of the Water Resources and Environment Subcommittee.

The meeting with Price was fruitful. He recommended several members of Congress who NOWRA should contact, as they would likely back its initiatives. He also offered to help NOWRA organize a mini-expo.

Price came through with his offer, and on July 30, a technology fair, sponsored by Gibbs, took place. Thompson says they invited members of Congress, staff and other environmental and water policymakers. A number of tabletop educational exhibits were put together by NOWRA. Each highlighted a different aspect of onsite/decentralized wastewater and its benefits, and each was staffed by a knowledgeable NOWRA member.

In addition, a slideshow of onsite "sound-bites" ran on the television monitors in the room used for the technology fair. The goal was to educate Congress about the onsite wastewater industry and its benefits, as well as the lack of support the industry receives from government bodies. Thompson says they weren't sure how it would go over, but that several members of Congress did show up, along with roughly two dozen senior staff.

"I think it's been fantastic that a bunch of companies in the industry, and even some state groups, have stepped up to fund this initiative," says Thompson.

"It's gone from talking about this, to people writing checks—substantial checks—and committing to do this for some time." Obviously, the industry won't see changes overnight, but it is a huge step in the right direction. "I believe that over the long run, just having a voice in D.C. will have an impact on how onsite policy is written," adds Thompson.

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Inspection of Onsite Wastewater Systems at the Time of Sale

By Randy Miles

INSPECTION of onsite wastewater systems (OSWS) at the time of sale or during property transfer has gained great interest in many local and state codes. The purposes for many of these programs are to protect the home buyer, protect public health and the environment, improve water quality and assure quality of life while assisting in getting failing OSWS repaired or replaced in a sequential manner.

Overall, a comprehensive assessment of existing OSWS at time of sale leads to a higher quality of life in the community while maintaining or increasing property values. In many states, the first-generation OSWS are now substandard for a variety of reasons, including:

- The technology at the time of installation was very limited;
- Population density of many areas was very small, but has now increased such that the capabilities of the soil receiving environment is nearly maximized;
- Dilution was considered by some regulatory authorities as acceptable; and
- Systems were put in on a temporary basis because it was perceived that central or municipal sewers would be coming in the future (see MILEstones article on page 14).

Many former rural settings have become more densely developed with many of the

residences being inhabited by individuals who moved from an urban setting on a municipal wastewater system to the country or edge of town with an OSWS. This new rural generation has become more aware of many water quality issues associated with wastewater.

Additionally, many banks and lenders demand assurance of an adequately functioning OSWS before lending money to a potential homeowner. These situations have placed greater emphasis on development of inspection programs for existing OSWS at time of sale.

Missouri and Iowa are two of many states that have developed onsite wastewater inspection programs to assess the status of OSWS servicing homes that are changing ownership. The Iowa Time of Transfer (SF261) program requires that every building or home with an OSWS must have it inspected prior to the transfer of deed (there are some exceptions, such as transfer by trustee in bankruptcy, divorce, etc.).

This assessment program, which took effect July 1, 2009, is comprehensive and consistent in that measurements and observations must be made with access to various wastewater components on all inspected OSWS. Much of the legal basis for SF261 was the Iowa Groundwater Hazard Statement, a document required for all property transfers.

The fundamental philosophy of the Iowa inspection criteria is that an OSWS with primary and secondary treatment that is not creating an environmental or public health

hazard should pass. Therefore, all systems must have primary and secondary treatment components. The secondary treatment component assessed could be any of the following:

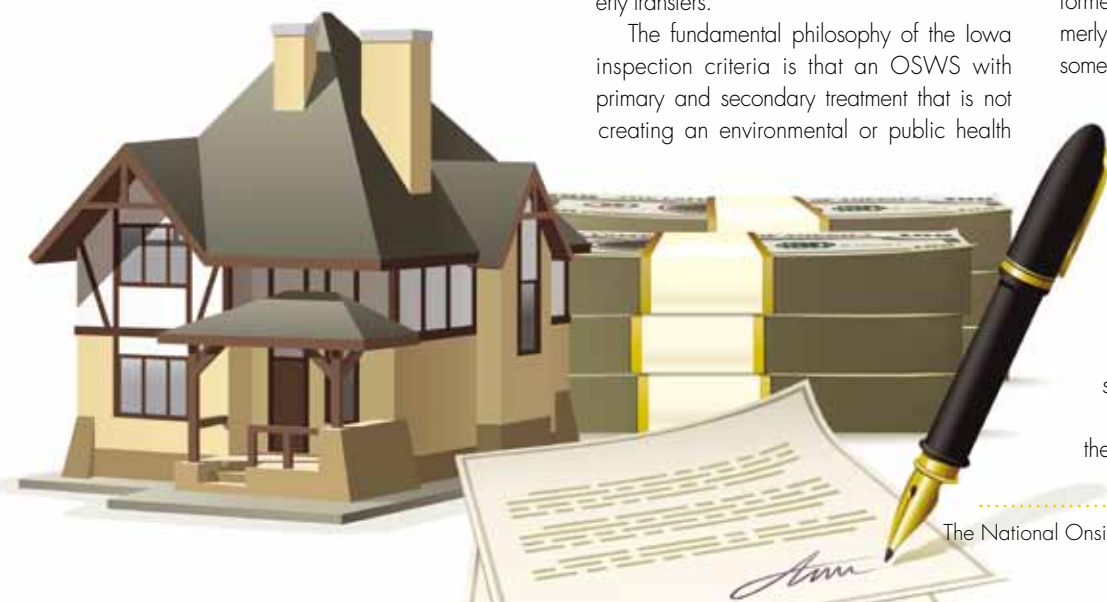
- Soil absorption trench;
- Sand filter;
- Media filter;
- Aeration treatment unit; and
- Wetland system.

In situations where the OSWS would have a sewage tank and/or soil treatment field too small or the soil treatment area is too close to a limiting feature (such as groundwater or bedrock), the system does not have to meet the current code if it has a secondary treatment technology that is properly functioning. Completed inspections are valid for two years. This consistent assessment essentially has one form which is used and filled out by a professional inspector.

The Missouri Onsite Wastewater Loan Inspection and Evaluation program was initiated in 1996 with mixed results and was later revised after input from a state-wide stakeholders committee. The Missouri program involves two types of assessments—an inspection and an evaluation. The inspection is the more comprehensive assessment in that lids of all technical components are removed for assessment. Measurements and dimensions of the tank and soil absorption field must be performed, along with a hydraulic loading (formerly called a stress) test using a tracer dye in some cases.

The Missouri inspection assessment uses individual forms for specific technologies. The individual forms currently used are OWTS assessment summary, aeration treatment unit (ATU), bio-media treatment unit, dispersal field, holding tank, lagoon inspection, pump tank, septic/trash tank, setback form, site diagram, water supply and wetland.

The evaluation is just a walk over of the system in which a visual and ►► 19



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JONES Pump Service started as a small-town business, but owner Dwayne Jones has made himself known in the onsite wastewater recycling industry nation-wide. Although the company is still locally based, Jones Pump Service is rapidly growing.

In 1983 Jones was working for his father's water well drilling company. He hadn't had many other jobs in his life, but the 21 year old decided to set out and start his own business. And, Jones Pump Service was born. While it was risky starting a business at such a young age with such little job experience, it has paid off for Jones.

"When I started in 1983 it was just me and I worked part-time in the business for two years," says Jones. He started off doing excavation and septic system installations for the first few years. This included demolition service, land clearing, land grading, storm water management, holding ponds and drain clearing.

After about 15 years, the Bel Air, Md. based company added septic system pumping and portable restroom rentals to its list of services. In the last six years the company has added the sale of specialized septic components. Today, the services they provide include septic system installations, property transfer inspections, portable restroom rentals, Bionest treatment sales, and operation and maintenance service provider for Best Available Technologies.

• He has also found his membership to the
• National Onsite Wastewater Recycling
• Association (NOWRA) to be very
• beneficial in furthering his business.

Jones says septic installations and pumping are the services the company most often is called for, but that could change soon as the industry changes. Jones is embracing the notion that the future of the company is directly related to the changing industry.

With a growth of services offered also came a growth of the company itself. Jones is looking toward the future, not just in terms of expanding his own company, but in terms of what types of new innovative technologies the industry is embracing.

"The future is more in the consulting and the nitrogen pre-treatment side of the industry," says Jones. Some of the actions that he has taken to prepare for this changing industry includes taking classes, holding training courses and working with other companies to develop and use the newest technologies available.

Jones is the president of the Maryland Onsite Wastewater Professionals Association (MOWPA), which has helped him make local contacts in the industry. He has also found his membership to the National Onsite Wastewater Recycling Association (NOWRA) to be very beneficial in furthering his business.

"It's given me a lot of contacts with other businesses around the country," says Jones. The conferences have been particularly useful in helping him meet people in the industry, including designers, installers and regulators. Jones notes that these organizations and

conferences have given him the opportunity to learn from other members of the industry.

His goal starting out was to supply quality products and services at a competitive price. Proof that he succeeded is that the company is still thriving over 30 years later. He takes pride in his company's commitment to excellence and customer's needs, and he looks forward to growing his company as the industry itself continues to grow. 🌱



Jones Pump Service workers installing a Bionest nitrogen treatment unit.



A Jones Pump Service truck on the road.

Raising the Flag for Decentralized Onsite Wastewater Systems

By Randy Miles



Randy Miles.

• We need to make the point that we can offer a reasonable, cost-effective, highly efficient solution to many wastewater treatment problems.

In my professional roles as educator and researcher at the University of Missouri, a part-time consultant in the decentralized wastewater arena, and as a member of professional wastewater organizations, I have encountered many scenarios in which the customer downgrades onsite and other decentralized wastewater systems and technologies.

Many of the comments show little understanding of all wastewater systems. I will share some of these situations and my responses. While you may not agree with my comebacks, I hope my rumblings get you thinking about the profession and spur you to share your experiences so we can honestly promote the profession.

My first scenario is a family building a new home on a few acres near the edge of a town or city. They want the wastewater system to be put in cheaply or on a temporary basis because they believe the city will run a municipal trunk line in a few years.

As many of you already know, the United States Environmental Protection Agency has already stated that decentralized wastewater systems are a permanent solution to the management of wastewater. Sometimes the roll of my eyes to this plea for a temporary system strikes consternation. I share the following with them.

First, federal block grants for municipal sewers are essentially non-existent. If a municipal line will be run it is likely a result of a private development beyond the person's property. Second, the cost of monthly services for the municipal system could be greater than what people are used to in the city.

In the city you may pay a monthly fee per residence with three to four homes per acre. Now you will have one home on a few acres. The municipality isn't going to charge you the same monthly sewer bill.

The comeback I usually get is, "But the sewage is contained in the pipe! I won't have to worry about contaminating the environment!" I then share that some municipal

wastewater standard textbooks use the loss of up to 10,000 gallons per mile as an acceptable amount of leakage to be able to declare a pipe watertight, depending on the size of the line, etc. That amount of wastewater at the right point can be a real problem.

I have not had a comeback to that yet. Many people see decentralized in a different light after this discussion. In many cases, they find that the municipal trunk line never materializes.

My second scenario deals with the cost of advanced systems, which use secondary or tertiary treatment with time dosed dispersal in the soil treatment area, usually drip dispersal. As most of us know, these technologies are used when the receiving soil environment is marginal, or in a geologically or ecologically sensitive area.

I have heard people say, "If we can put a man on the moon, why can't we make a septic system work in this soil situation?" My simple response is, "When we spend the equivalent amount of money as putting a man on the moon, we will! In fact, we can spend less (the advanced system that has been suggested for your site) and make it work with appropriate operations and maintenance."

My major reason for sharing these thoughts is to point out that we need to do a better job of objectively raising the flag for decentralized onsite wastewater systems. We need not run down centralized wastewater systems or other technologies. They have their place on the menu of options for many communities and residences. We need to make the point that we can offer a reasonable, cost-effective, highly efficient solution to many wastewater treatment problems.

I challenge all readers of *The Onsite Journal* to share their thoughts on carrying the decentralized flag at the local, state and national levels. Let's make sure that we can have a level playing field for our profession. 🌍

A Better Tank

By Claude Goguen

CODES, rules and specifications across North America state that decentralized wastewater system structures must be watertight, and justifiably so. Raw sewage cannot escape the tank, contaminating the local environment. Water cannot infiltrate the tank and short circuit the treatment process. But watertightness is also about keeping water out of the material itself.

Concrete has had a predominant role in the wastewater industry since about 600 BC when the Cloaca Maxima was built in Rome. Meaning "Greatest Sewer," it was built to handle the waste of the world's most populous city. More than 2,000 years later, portions of that concrete sewer are still used, and throughout the world, concrete continues to serve as the most used material for wastewater structures.

Precast concrete tanks have the structural ability to withstand many site conditions, including virgin backfill material and HS-20 load rating situations. Concrete's ability to be designed and engineered enables it to be manufactured to withstand adverse burying conditions and loading situations.

While wastewater treatment has evolved, concrete is still used for its reliability and durability. Precast concrete manufacturing technology has also evolved and producers are using new methods and materials to continue producing high quality long-lasting structures for both standardized and custom applications.

One of the key elements of precast concrete durability is watertightness. Water permeating or absorbing into concrete can carry harmful elements and lead to deterioration. Concrete is not easily breached, though. It could take water more than 4,800 years to penetrate through a good quality six-inch concrete wall.¹

The most important factor in producing concrete is to maintain a low water-cementitious ratio (w/c). This means using just enough water for cement hydration and correct placement through the form and around the reinforcement while minimizing excess water, which can create pores. The presence of pores alone does not mean the structure is not watertight; it

is the size, amount and connectivity of those pores that matters.

Water in the concrete mix comes from water added into the mixer and from the aggregates. Quality control technicians diligently check aggregate moisture to make adjustments to the batch water quantities. Modern technology has been an asset in controlling w/c ratios. Probes in the aggregate bins or mixer can detect moisture content and send that data to the batch plant.

New materials have also emerged to provide enhanced hardened precast concrete properties, including watertightness. Supplementary cementitious materials (SCM) including fly ash, blast furnace slag and silica fume can be used as a partial replacement for cement. Each has impacts on precast concrete performance, but a common one is increased resistance to water intrusion. SCMs will react with hydration products and moisture to produce a more dense concrete, which renders it more impervious.

The science of admixtures is continuing to advance. Producers use many different admixtures in order to modify fresh or hardened concrete properties to adapt to the given environment. Air entraining admixtures can reduce permeability and absorption through enhanced workability and reduced aggregate settlement. Many producers use water-reducing admixtures to maintain or increase workability. Water reducers and the ongoing advances in development of these products have led to overall reductions in w/c ratios and more watertight precast concrete structures.

Permeability-reducing admixtures (PRA) are also gaining popularity. There are two types, non-hydrostatic (PRAN) or hydrostatic (PRAH). One acts as a water repellent to reduce absorption while the other reacts with byproducts of cement hydration to form additional gel and/or precipitates that block microcracks and capillaries.

Good quality concrete is able to withstand water ingress under pressure. Some extreme conditions may call for additional measures, including coatings and sealants. These are products applied to the surface of hardened precast concrete to reduce the penetration of water and harmful ions into the concrete.



A precast concrete septic tank.

Sealers are generally classified as film-forming. They block penetration of water by forming a clear protective barrier on the surface. Some are water or solvent based, others are epoxy or urethane sealers. Penetrants, or penetrating sealers, soak into the concrete and enter the voids and capillaries at the surface to form a water repellent layer. Water will bead on these treated surfaces. Most penetrants are formulated with silane or siloxane polymers that react with materials in the concrete to form this water repelling barrier.

Coatings are engineered products with specific properties to form a barrier to protect from chemical attack. Coatings are typically epoxy, urethane or acrylic. Other types include asphalt coatings that can be hot or cold applied, polyureas, polyaspartic and poly and vinyl esters.

Producers of precast concrete wastewater structures are diligent in finding the best materials, material ►► [page 16](#)

Reference

1. Based on permeability listed in Portland Cement Association, Design and Control of Concrete Mixtures, 15th Edition, Chapter 9, Properties of Concrete.

combinations and production methods to continue delivering a product that will provide a long service life.

Whether it's the Cloaca Maxima or a gravity system in a backyard, the success of a wastewater system depends on many things. One step in that direction is

to involve the precast concrete manufacturer early in the process. Based on the anticipated demand, physical loading and environmental conditions, a precast concrete manufacturer can design a system that will provide long term durability and peace of mind. 

.....
Claude Goguen is the director of Technical Education and Sustainability at the National Precast Concrete Association (NPCA). He has over 20 years of experience in the precast concrete and construction industry.






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If you are a NOWRA state affiliate, you can contribute to this section of the magazine **FREE OF CHARGE!**

Email mcrane@matrixgroupinc.net for deadlines for the next issue.

Colorado

The state of Colorado adopted new onsite wastewater treatment system (OWTS) regulations June 30, 2013. Local public health agencies are required to adopt their own OWTS regulations that are at least as stringent as the state regulation. As of August 21, 2014, most agencies have regulations that have been approved. The rest are working through the process and hope to have new regulations soon.

The Colorado Professionals in Onsite Wastewater (CPOW) organization has been actively focused on increasing educational training opportunities. The association now offers six educational courses, including OWTS inspector, OWTS installer, OWTS operation and maintenance, vacuum truck technician, OWTS design and soils training.

They are excited to be teaming up with NOWRA to host the annual NOWRA/CPOW Conference in Denver, November 9 to 12. Visit our website and sign up for the newsletter to stay up to date with CPOW information.

www.cpow.net

Delaware

This year, DOWRA's 18th Annual Conference & Exhibition will be held October 14 to 15 at the Harrington Raceway and Casino in Delaware. A clay shoot, golf tournament, crab feast and Operator of the Year event are scheduled. In the past, the annual A Back Hoe Rodeo has produced first place operators for our state and country.

Last year, live entertainment and food was on hand for the three hour happy hour. There was a two-track selection where presenters spoke to attendees (including installers, designers, engineers, regulators, soil scientists and inspectors) and 35 exhibitors.

www.dowra.org

Newly-elected officers for DOWRA

- Daniel String, president
- Brian Carbaugh, vice-president
- Hollis Warren, past president
- Kim Yanaitis, treasurer
- Henry McKinney, secretary

Minnesota

The Minnesota Onsite Wastewater Association's Annual Convention and Exhibitor

Showcase is taking place January 26 to 28 at the DoubleTree by Hilton. For more information, contact Carla Tourin at mowacarla@aol.com or 952-345-1141.

www.mowa-mn.com

Missouri

Missouri Smallflows Organization (MSO) is excited to announce that the 2015 Conference and Trade Show will be held on January 20 to 21 at the Country Club Hotel and Spa in Lake Ozark, Missouri! There will be a pre-conference on January 19. It will be a fun-filled event with the third Annual Roe-D-Hoe® and evening entertainment. Sponsors can check our website for great ways to make their company a part of the fun.

Seminars are offered every month. Find our schedule on our new website and sign up for classes.

Members with a child who will be a senior in high school this fall should apply for our Daryl Brock Memorial Scholarship. The application is on our website.

MSO office moved in April so update your contact records!

www.mosmallflows.org

Pennsylvania

The Pennsylvania Onsite Wastewater Recycling Association (POWRA) will have its annual fall meeting and educational session at

the Stroud Water Research Center in October. The facility, located in Chester County, has been at the forefront of research and stewardship of fresh water systems since 1967. In addition, it has recently installed an innovative wastewater treatment system using a constructed wetlands and drip irrigation system as part of its LEED Platinum Certified Complex.

POWRA continues to have a positive influence on proposed policy and regulatory changes through its representation on the Sewage Advisory Committee. Proposed changes include integrating systems currently classified as alternate into mainstream use for new land development. Its members, who are recognized experts in the onsite wastewater field, strive to facilitate better understanding and cooperation with the Department of Environmental Protection for the benefit of all citizens and our water resources.

www.powra.org

Wisconsin

On July 21, 2014, Wisconsin Onsite Water Recycling Association (WOWRA) members gathered to install a private onsite wastewater treatment system for a family in need. From design to materials to labor, everything was donated by WOWRA members. This is the second year WOWRA has organized Rejuvenate a Family Day.

www.wowra.com

Join NOWRA: Reap the Benefits

WHY NOWRA?

- NOWRA is the largest organization within the U.S. **dedicated to educating and representing members** within the onsite and decentralized industry.
- **All segments of the industry are represented on NOWRA's Board of Directors** that provide broad perspectives to promote and sustain our industry and service to the public.
- NOWRA provides **a national forum** to address the challenges facing our industry.
- As the national educational resource and clearinghouse for onsite and decentralized systems and promoter of best management practices, **NOWRA plays a lead role in state and federal legislative initiatives** to protect water sources, human health, and the environment.
- **NOWRA creates new market and business opportunities for its members** through conferences and networking events, while increasing the awareness about how onsite systems protect public health and the environment.

WHY JOIN?

Septic Locator: Every NOWRA member receives a free listing on the Septic Locator, the only national, searchable directory of providers of onsite wastewater management services.

Installer Academy: NOWRA has established the Installer Academy as the national educational entity for the decentralized wastewater industry to ensure that quality training programs are available for all industry practitioners.

Resource Library: NOWRA's Resource Library is intended to be a one-stop portal to help you identify critical information online, which can help you manage your business. It consists of published industry research, how-to manuals, regulations, archived training materials...and more.

Annual Conference: NOWRA's Annual Conference & Expo brings together industry leaders from around the country.

Newsletter: NOWRA E-News is delivered directly to your email inbox and consists of the latest news on national and regional developments affecting our industry.

Leadership: NOWRA provides all members with opportunities to have a voice in its affairs. Whether you express that by voting in NOWRA's Board of Directors elections, participating in the Annual Meeting, commenting on proposals, volunteering your time on a committee or task force, or simply sharing your views with a board member, NOWRA welcomes and encourages your involvement in our activities.

Affiliate Support: NOWRA works to support its state organizations in a variety of ways: training discounts, Roe-D-Hoe® support, meetings with state leaders, data/web services and much more.

Roe-D-Hoe®: Held annually at the Pumper Show, this competition is intended to showcase the skills of contractors and the equipment they operate through a series of timed exercises contestants must perform on a backhoe. NOWRA also sanctions a number of state Roe-D-Hoe® competitions around the country; the state winners are automatically grandfathered into the national finals where they compete against the winner of the open competition held during the Pumper Show.

Errors and Omissions Insurance for Designers and Inspectors: NOWRA has endorsed Alteris' SeptiCover Errors & Omissions coverage for designers and inspectors of septic systems. Alteris has been involved in the septic system industry for more than a decade and their SeptiCover E&O package offers extremely affordable premiums for members providing design and or inspection services.

Equipment Loan Discounts: NOWRA has partnered with Wells Fargo to provide members with discounts on interest rates and document fees for equipment purchases in excess of \$50,000. This membership benefit is unique for NOWRA members—no other onsite association is able to offer this discount to its members.

Office Supplies Discounts: NOWRA has teamed with Office Depot to bring your business a better office supply solution.



small sensory assessment (without being intrusive to the OSWS components) is performed. The evaluation assessment uses a monolithic form designed for the generalities of this assessment. Both Missouri assessments are voluntary in that they are normally initiated by the buyer, the buyer's agent or the buyer's lender, and place the decision about any action to correct system malfunctions and deficiencies on deliberation between the buyer and seller.

The certification of professionals to perform inspections in both states comes through a two day training program. In Iowa, the program is managed by the Iowa Department of Natural Resources and in Missouri the program is run through the Department of Health and Senior Services. Both states require continuing education units (CEU) for licensed professionals.

Dan Olson, senior environmental specialist and coordinator of the private sewage disposal program for the Iowa Department of Natural Resources, described the importance of CEUs for certified time of sale inspectors. Olson's major reasons for this notion were to re-emphasize specific critical inspection points of the OSWS and inspection of new technological components or proprietary components which have been introduced since the professional had become certified. Olson is aware of other inspection at time of sale state programs that do not require CEUs and has heard of problems with updating professionals on special inspection issues with new technologies.

Time of sale inspection programs have been an added assurance to many of the consumers that the onsite wastewater industry serves. Many of the elements of a successful program have strong, consistent standards, comprehensive education and certification programs, followed by timely continuing education. ●

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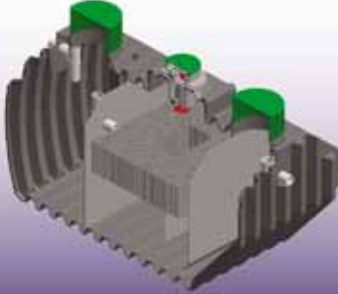
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