

# DOWRA

January 2007

**DOWRA**  
**P.O. Box 1696**  
**Dover, DE 19903**

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## From the President

Greetings DOWRA members! I would like to thank you all for making 2006 one of DOWRA's most successful years on record. Early on we established a busy agenda for all to conquer, and with hard work and dedication we did it. Hopefully snap shots in this newsletter will let you explore last year's endeavors.

Now on to business. During my first year as President, I was able to gain a new perspective on what some of you actually thought of the organization. What I learned is that many of you view DOWRA as the organization that only produces a conference once a year, that DOWRA and DNREC are the same thing, and DOWRA needs to provide a broader spectrum of educational classes. This came as a huge shock to me considering that DOWRA is a private organization separate from DNREC, and is an organization that has grown to be one of the most powerful state associations within NOWRA. With its growth, DOWRA has been able to: provide a variety of educational opportunities to the members; provide a technical educational conference; educate the community

on on-site wastewater; work with local governments and agencies; and assist local colleges in developing coursework.

So after sifting through a year's worth of comments, and seeing the involvement of the same members at each meeting, the question came up of how to get other members more involved and how do we promote DOWRA??? These questions are very difficult to answer and require an assessment of DOWRA. With that said, the DOWRA board is asking all of its members to complete an upcoming evaluation form so the organization can evaluate the needs and thoughts of the members and change accordingly. We want the good, the bad, and the ugly, so please hold nothing back.

This is very important for the growth of DOWRA in the on-site arena, so upon receiving the evaluation please take a minute and complete the evaluation and send it back. We hope to provide you with the survey results in the next newsletter or on our website. As always I thank you for your continued support and I look forward to another Great Year!!!!

*Hilary Moore*

## Membership Renewal Application

This is a reminder that the annual DOWRA membership dues are included in this mailing for the 2007 calendar year. DOWRA prides itself on acting on your behalf, the member's voice in the on-site arena, as well as providing you with up to date training in the on-site field. DOWRA can not achieve these goals without the continued support and dedication of its members. Membership renewals are \$60.00 and include the following:

- Discounts at firms (ie Office Depot)
  - Access to professional educators & consultants
  - Listing in NOWRA's Septic Locator
  - Industry networking opportunities
  - Voice in local & regional governments
  - Discounts & availability for educational sessions
- Please read the membership renewals carefully and update as necessary. **Also DOWRA would like to start notifying members of important dates and information by email if possible. If this is something that interests you, please include your email address on the renewal form.**
- Membership to NOWRA
  - NOWRA's On-Site Journal magazine
  - DOWRA's semi-annual newsletters
  - Discounted life & health insurance
  - Placement in DOWRA's membership directory (see article on page 2)

## 2007 Membership Directory

### Attention DOWRA Members!!!

The DOWRA Board of Directors is proud to announce that back by popular demand will be the **2007 DOWRA Membership Directory**.

If you are receiving a Membership Dues Invoice for 2007 then you are qualified to participate.

As part of the 2007 DOWRA Membership Renewal Campaign, we



will be compiling a Membership Directory for our members who renew their membership prior to February 16, 2007. The DOWRA Membership Directory will not be printed again until February 2008.

The membership will be at the fair, meetings and at the conference.

Send your business card with your membership renewal form and you are in

the directory.

### Business Card Requirements:

- Standard Size 3 1/2" L x 2" W
- Clean Cards - no handwriting or cross outs on the cards please
- Verify your name, as the member, appears on the card
- Mailing labels will not be accepted in place of business cards

*Please note that business cards received that do not comply with the requirements as outlined above will not be included.*

## Improving Siting, Design & Installation ~ Tell/Ask Ben

### DOWRA IS SEEKING SUGGESTIONS TO IMPROVE THE SITING, DESIGN AND INSTALLATIONS WITHIN THE ON-SITE INDUSTRY

This is a new trial section within the DOWRA newsletter to incorporate ideas and suggestions from professionals within the on-site industry. Any experiences, stories, ideas, or suggestions that you may be able to provide will be greatly appreciated. Questions and discussion topics can also be submitted. All submissions will be considered. Your submissions can either be forwarded to [bmiller@ecieng.com](mailto:bmiller@ecieng.com) (Subject DOWRA) or mailed to: DOWRA, Attn: Newsletter, P.O. Box 1696, Dover, Delaware 19903.

#### Submission #1

I have found through my professional career that the best way for me to improve my knowledge and experience within the on-site industry is to talk to other industry professionals, ask lots of questions, and volunteer or observe the different areas of the on-site industry. I am currently a licensed designer and inspector. In the

beginning of my on-site career, as a standard gravity designer, there were several instances that I made arrangements to observe and even help with installation of systems that I had designed. With this experience I learned that there are many field and equipment constraints that are not known to the average designer. Designs can make sense and work on paper but may not be the best choice or layout for actual field installation. By knowing these field constraints I have become a better designer.

My design background was initially located in New Castle County where slopes were often encountered. As most of you know, it is not always possible to overcome slopes with a gravity design; therefore, I would find myself designing and specifying lift pumps to overcome elevation constraints. I had the knowledge and background to specify the pumps, vaults, settings, and calculate the de-

sign parameters, i.e. head losses and such, but I did not know how a pump worked, how a control panel was set up, how to set a timer, and so on. Since I was not always able to find out whom and when an installer was going to install a system I designed, I called around to different engineers that I knew to see if I could attend a few cover up inspections to gain that knowledge. By doing this I gained a greater understanding of how things worked and since have been able to incorporate it into my designs. The knowledge I gained has been even more helpful since the Class H system inspection license has been implemented.

Talking to different onsite professionals is helpful, but seeing or helping is worth even more!

By: Benjamin Miller  
ECI; Rehoboth Beach

**"Talking to different onsite professionals is helpful, but seeing or helping is worth even more!"**

## 2006 Year In Review



As we look back on 2006, we can say that DOWRA had again another successful year. Not only did DOWRA's voice become stronger, our membership grew larger and we were able to grow professionally as an organization. The following is just a highlight of our success!



DOWRA participated as an exhibitor at the Delaware Rural Water Conference and the Delaware State Fair held in Harrington. Members volunteered their time to answer questions from the public as well as hand out educational materials on septic care and maintenance.

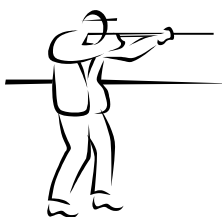
Good food and friends. The annual membership appreciation crab feast was held at Seafood City in Felton to thank those members who participated in and/or volunteered their time at last years meetings, exhibits, committees and educational sessions.



DOWRA's 10th annual Conference, "Your Voice in the On-Site Industry" was bittersweet as we celebrated our 10th anniversary in existence and produced our most successful conference! DOWRA was able to host over 17 local, regional, and national presenters as well as 45 exhibitors in the on-site industry. Over 330 attendees participated!



DOWRA held two clay shoots at Owens Station in order to promote camaraderie and raise money for educational tools.



## NOWRA's Septic Locator



Be sure to visit NOWRA's Septic Locator!

Septic Locator -

[www.septiclocator.com](http://www.septiclocator.com) is a new on-line search directory created by NOWRA to help on-site system users locate septic products, services and industry professionals in their local areas. This site is a great advertising tool to all DOWRA/NOWRA members and it is free to you and the public! This site is also a great source of information for the general public, policy officials, builders, realtors and others who are looking for guidance on various septic-related topics. Members can upgrade their information with enhanced and premium listings. Each member's information will be updated annually by DOWRA based on your membership renewal application.

"This site is a great advertising tool to all DOWRA/NOWRA members..."

The 10th Annual DOWRA Golf Tournament was held at Jonathans Landing in Magnolia and proved to be our most successful to date. There were over 18 golf teams that participated and 22 hole sponsors. Because of their support, DOWRA was able to raise enough money to donate two scholarships to Del Tech which included the Edward V. Stella Scholarship and the DOWRA scholarship. We were also able to raise enough money to donate towards Del Tech's On-Site Professional of the Year Award. This award will be given out for the first time in May 2007.

## DNREC Not the Only One Requiring Septic Tank Effluent Filters

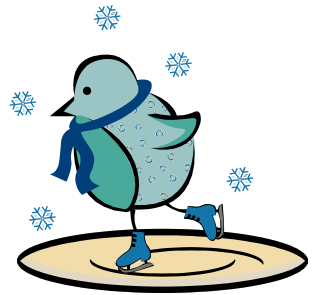
American Society for Testing and Materials known as ASTM currently approved significant changes to ASTM C 1227 on December 6, 2006 at the ASTM annual meeting. The changes to C 1227, Volume 04.05, now require that all septic tanks must be equipped with an Effluent Filter. We believe this is a positive step forward for our industry. Regardless of a State's particular requirements, if the tank manufacturer adheres to ASTM specifications, then the tank is required to include an effluent filter.

As you may be aware, ASTM plays a key role in our industry, developing standards to improve the on-site wastewater industry. Committee C27, Septic Tank Designation C27-1227, was responsible for drafting, reviewing

and approving the final requirements. This is a very balanced committee of almost 200 members with representation from regulators, engineers, and manufacturers. The approved ballot information will be available in late December or early January.

You may review this change on the ASTM website at [www.astm.org](http://www.astm.org) or it will be available in hard copy in June 2007.

By: Patrick Mulhall  
Vice President, Sales Polylok



## National Installers Certification

In a world where there appears to be a certification available in just about any field you can think of, the on-site installer seems to be left out in the cold. Here in Delaware you will find that the Class C Designer has PE after their name, and the Class D has CPSS or CPSC, so why not a PI (Professional Installer) for the Class E System Contractor? The reason being is because there is no certification for the on-site installation professional, well there wasn't until recently anyway. It seems that due to increasing national demand for installer accreditation somebody has been listening. The National Environmental Health Association (NEHA) has worked in cooperation with the EPA to develop a national standardized examination and accreditation for on-site installation professionals. NEHA and the EPA enlisted the help of some pretty well known on-site industry organizations including: NOWRA, NAWT, SORA, NSF and CIDWT to assist in putting together the credentialing examination.

The examination was offered for the first time at the NEHA National Conference in San Antonio, Texas, this past June and will be offered again in February 2007 at the Pumpers and Cleaners Environmental Expo International in Nashville. So far it has only been offered in large industry venues such as these to allow better control over the testing while it is in its infancy. It is hoped that in the near future the testing will be made more accessible by being offered by local education facilities and hopefully even at the annual DOWRA Conference. Thereby giving Delaware's growing ranks of on-site installers the opportunity to pick up nationally recognized credentials while at the States premier on-site event.

**"in Delaware you will find that the Class C Designer has PE after their name, and the Class D has CPSS or CPSC, so why not a PI (Professional Installer) for the Class E System Contractor?"**

There are two examinations offered, the "Basic" exam consists of 75 questions involving the necessary knowledge and abilities needed to successfully install an on-site wastewater treatment and disposal system. The "Advanced" exam will take things a step further giving the installer more difficult scenarios to work through that are geared away from the "test taker" and toward the "hands on" installer. The "Basic" exam can be taken by anyone who is at least 18 years old and has a High School Diploma or a GED. The "Advanced" has 125 questions. It requires the same educational background as the "Basic" exam plus a work history that includes a minimum of at least 2 years experience in installing on-site wastewater systems.

NEHA credentialing examinations are known to be thorough and definitely not the easiest tests to pass. You really do have to have some knowledge and experience to pass their tests. In addition to passing the initial exam, continuing education is required to maintain the credential. NEHA will require 12 contact hours every 2 years. So as a licensee in Delaware that is required to obtain 10 credit hours a year, you can easily meet the NEHA requirements.

I am planning to take the exam this coming February, at the Pumpers and Cleaners Environmental Expo in Nashville. I hope to gain additional knowledge from taking the test so that I can pass it along in future newsletters.

I sure hope I pass!!!!

By: Jim Cassidy  
Regulator, DOWRA Board

## 2007 Board of Directors



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**Pumper** ~ Wayne Hudson

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The DOWRA Board would like to send a special thank you to **Mike White** for serving on the DOWRA Board (as the installer) for the past three years. **Your hard work and dedication is truly appreciated!**

**Soil Scientist** ~ Jack Hayes

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## Welcome to the New Board of Directors

As the 2007 year begins the DOWRA board would like to welcome four newcomers to the Board of Directors who will be serving three year terms. They are as follows:

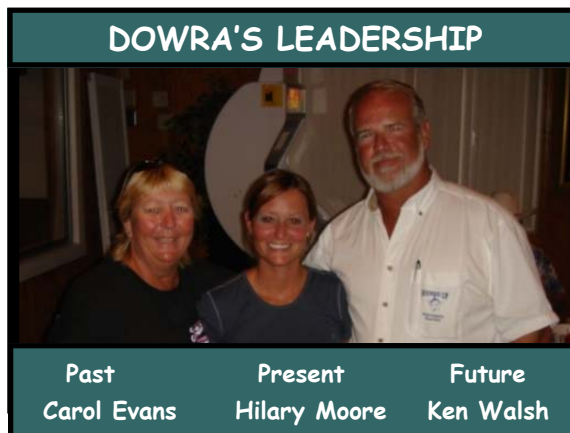
**Scott Pinder** has accepted the position as Engineer on the board and brings over ten years of experience in water and wastewater treatment design and construction. Scott currently manages the River Basin Engineering Cape Division office in Lewes.

**Gusty Voshell** has taken Mike White's place as Installer on the board. Gusty has been in the on-site business since 1975 and not only has experience installing residential systems, but has also worked on a community installation as well as preparing Class B designs and percolation tests.

**Ben Miller** has filled the newest category, the Class H System Inspector. Ben's experience includes the design and engineering support of gravity, conventional engineered, alternative, and experimental wastewater disposal systems; on-site wastewater disposal system inspections; wastewater sampling and analysis; infrastructure construction inspections; and environmental investigations. He currently holds a State of Delaware Class B Designer license and Class H System Inspector license.

**Jim Cassidy** has accepted the position of Regulator. Jim is currently an Environmental Program Manager I with the Division of Water Resources, Groundwater Discharges Section, in the Georgetown Office. He has 25 years experience in the on-site wastewater industry as a regulator, designer and an installer.

When you see the new board members be sure to congratulate them, and not feel sorry for them and welcome them aboard. Also feel free to contact any of the board members at any time with questions or comments.



## Site Evaluation Expirations

Be on the look out for an upcoming DNREC policy regarding site evaluation expirations. The first round of site evaluations to expire will be March 11, 2007. If you have any questions regarding the expirations please contact Dave Schepens at (302) 739-9948.

## Are There Harmful Effects of Water Softener Discharges on Household Septic Tanks?

It is not true that water softener regeneration discharges pose a problem to septic systems or to the leach field. Studies have shown that water softener regeneration wastes not only do not interfere with the septic tank system drain field soil percolation, but, actually could, because of the polyvalent water hardness cations in the regeneration discharges, improve soil percolation particularly in fine-textured soils.

WQA has research reports by the University of Wisconsin and the National Sanitation Foundation on septic tanks and water softeners. This research was completed in the late 1970s. It was about that time that numerous regulatory agencies were contemplating restriction on the discharge of water softener wastes to private sewage disposal systems. More recently the U.S. Environmental Protection Agency reviewed this research report, and an expert in on-site waste treatment wrote in October 1993 that he "does not believe that the conclusions of the earlier study would change since the chemistry and physics of soils have not." He also goes on to say that he knows this work to remain "scientifically excellent". These studies conclusively show that water softener waste effluents cause no problems for septic tanks. The allowance of water treatment system discharges to hundreds of thousands of septic tank systems is practically universal now. It has not caused damage or hazards; but it has provided convenience and economic savings to many homeowners. This conclusion is supported by the Ten States' "Recommended Standards for Individual Sewage Systems". The states have concluded that even in Montmorillonite clay soils, "the disposal of brine wastes from water softening equipment does not have a significant effect upon the permeability of soils suitable for soil absorption systems."

The addition of sodium to a septic system by use of soft water actually has beneficial effects on the digestion of wastes by bacteria. The volume of wastes from water softeners (about 50 gallons per regeneration) are added to the septic tank slowly and are not of sufficient volume to cause any deleterious hydraulic load problems. In fact, they are lower in volume and rate of addition than wastes from automatic washers. And the calcium and magnesium in softener regeneration wastes contribute to good air and water movement (improved soil percolation) through the septic system drainage field.

The University of Wisconsin and the National Sanitation Foundation reports clearly indicate that when the sodium content from the softener regeneration cycle is dis-

charged into the soil via a septic system along with other salts such as calcium, magnesium, and iron the result is an improvement in the soil's percolation rather than a detriment.

There are other advantages that are directly related to the use of ion exchange softened water when the hardness minerals; calcium and magnesium, are removed by softening. The homeowner uses less soap -- studies have indicated as much as 50% to 75% less. There is also less biodegradable products discharged into the system which relieves the loading on the system. It is a known fact that many homeowners do not maintain a septic system properly; not pumping the system at proper intervals allows detergent solids, as well as other solids, to be carried over into the drainage area causing clogging. Also, by having soft water or stain-free water available, the homeowner's fabrics are cleaner, and the amount of water used can be reduced. This reduces the loading on the septic system a great deal.

Many people may be under the impression that water conditioning equipment regenerates quite frequently and puts a high loading of sodium salts into the waste water. This, of course, is not true; the average family of four people would require a softener regeneration approximately two or three times a week.

The water quality improvement industry has earnestly sought to sort out the factual information on softener effluent. The septic tank study clearly indicates that there are no adverse effects when water conditioning effluent is discharged into properly installed private septic systems. There are a few additional reports that also explain further evidence of the hardness ions in a softener's regeneration wastes causing less clogging and maintaining higher permeability than the regular septic tank effluent.

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We're On The Web  
[www.dowra.org](http://www.dowra.org)

DOWRA Is proud to be a member of



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

## 2007 Calendar of Events

January 27-28	NAWT Training Course, Del Tech, Georgetown
February 27-March 1	DE Rural Water Conference
March 10-14	NOWRA's 16 <sup>th</sup> Annual Technical Educational Conference, Baltimore, MD
March 20	DOWRA Board/Membership Meeting, 6:30 pm Exhibit Hall Board Room, Delaware State Fairgrounds, Harrington
March	DOWRA Clay Shoot, Date to be determined
May	Delaware On-Site Professional of the Year Award, Del Tech, Georgetown, Date to be Determine
June 12	DOWRA Board/Membership Meeting, 6:30 pm Exhibit Hall Board Room, Delaware State Fairgrounds, Harrington
July 19-28	Delaware State Fair
August 16	DOWRA Membership Appreciation Crab Feast, 6:00 pm, Seafood City, Felton (by invitation only)
September 11	DOWRA Board/Membership Meeting, 6:30 pm Exhibit Hall Board Room, Delaware State Fairgrounds, Harrington
September 14	DOWRA 11 <sup>th</sup> Annual Golf Tournament, Jonathans Landing Golf Course, Magnolia
October 23-24	DOWRA 11 <sup>th</sup> Annual Educational Conference, Location to be Announced

## Mandatory O&M Requirements for I/A Systems

Well I know it has been a long time coming, but required Operation and Maintenance for all Innovative and Alternative (I/A) On-Site Wastewater Treatment and Disposal Systems is finally here. **Effective February 1, 2007** the Ground Water Discharges Section will be requiring all permittees of I/A systems to obtain/maintain service contracts through certified service providers for the life of the system. The mandatory I/A Operation and Maintenance requirements will be implemented through the use of permit conditions and an established guideline.

The guideline and conditions which outline the requirements to become a certified service provider as well as minimum system inspection frequencies were mailed out to all DNREC licensees with all DNREC approved I/A technologies contact information in November 2006.

These requirements were developed through a working committee consisting of regulators, DOWRA members, contractors, developers, engineers, manufacturers and operators. This committee allowed the regulated community to comment on the draft over the last year by presenting it at two workshops, two conferences and placing it into two newsletters.



If you have any questions regarding this or wish to view the document please contact Hilary Moore at 302-739-9331 or email at [Hilary.Moore@state.de.us](mailto:Hilary.Moore@state.de.us). Also, you may now view the I/A product approvals on-line by visiting: <http://www.dnrec.state.de.us/water2000/Sections/GroundWat/GWDSApproval.htm>