



**CONNECTICUT ONSITE WASTEWATER RECYCLING ASSOCIATION  
SUPPORTING CONNECTICUT AND OUR ENVIRONMENT**

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**COWRA, protecting water for all types of families.**

**June 2008**

**COWRA NEWSLETTER**

The Executive Board of Directors  
2006-2008  
President: Frank Talarico  
Vice President: Bill Coffey  
Treasurer: Phillip Zink Jr.

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the cost of shipping.

**Letter from the President**

Hello to all,

It sure got hot this June. I attended a Code Advisory Committee meeting back in March with the State Health Department and DEP. There will be some Code revisions and changes coming for January 2009. The next meeting will be July 9th, 2008. If anyone has concerns about current codes or changes you would like to see, please contact me through COWRA email or my business email.

On February 2008, the State approved some new leaching systems from Geometric System, LLC here in Connecticut. The owner Dave Potts is one of our members. He can be reached at 860-663-3993 or at [www.geomatrixsystems.com](http://www.geomatrixsystems.com).

June 5th, the State Health Department sent us a new revised list of approved filter fabrics and non-concrete septic tanks.

Our annual meeting will be coming up in July. This will be a casual outdoor event with great food, vendors and raffles. I hope many of you can attend. Bring family, friends and workers - all are welcome. We decided to try an outdoor event to change it up from past years. Please join us for a fun time.

Sincerely,  
Frank Talarico

**NEW MEMBER PROFILE**

**COWRA WELCOMES**

**John Ahern** of Alpine Environmental Services, LLC joined us in April 2008. Alpine was established in 2003. Alpine is a full-service environmental contractor located in Wallingford CT. Their services include: emergency responses, environmental remediation UST and AST cleanings and removals, groundwater recovery and treatment installations and waste management services. For more information about John's company visit him on the web [www.alpineenvironmental.com](http://www.alpineenvironmental.com)

**Sarah Gager** of J& R Engineered Products, Inc. joined us in March 2008. Sarah's company is a manufacturer's representative for suppliers of sewage treatment equipment in the New England area. Sarah has been with J&R Engineered Products since 2003 and has been in the industry since 1984. Sarah's company is currently awaiting approval in Connecticut for product usages.

**Bjorn Schneider** of Bord Na Mona Environmental Products U.S. Inc. joined us in April 2008. Bjorn's company is a provider of a wide range of wastewater treatment solutions to the residential and commercial sectors. Their products include the PuraFlo peat fiber media biofilter, the PuraMax moving bed biological reactor and the PuraM membrane bioreactor. Bjorn is the sales representative for his company in the CT area. He has been with his company for a year. For more information about Bord Na Mona products visit them on the web at [www.bnm-us.com](http://www.bnm-us.com)

## New Members Continued

**David Clark** is the owner of Clear Water Industries. He joined us in April 2008. His company is located in Ipswich MA. Clear Water Industries provides biofilters and wastewater treatment systems to the area and provides maintenance and service to these systems. David's products and services are currently being introduced in Connecticut. David's company has been in business since 1984. For more information about Clear Water Industries please visit their website at [www.clearwaterindustries.com](http://www.clearwaterindustries.com)

**Peter J Signore** of Signore Septic Services joined us in March 2008. Peter joins his father who had been a long-time member of COWRA. Their company installs septic systems and provides cleaning and pumping service. Signore Septic also includes portable toilets in their services. Their company is located in Salem CT. Signore Septic Services has been in business for over 20 years. Peter has been traveling with his father on business calls since he was 5 years old. Peter is now 19 and already has 14 years of experience under his belt.

**Alan Barbaro and Jim Bransfield** of Infiltrator Systems, Inc. joined us in March 2008. Alan and Jim are the sales representatives for the Infiltrator Systems in the state of CT. They are providers of plastic leach field chambers and advanced treatment solutions. Their office is located in Old Saybrook CT. Infiltrator Systems both manufactures its own products and directly sells their product through their own distributors. They have been in business since 1987. For more information visit them on the web at [www.infiltratorsystems.com](http://www.infiltratorsystems.com)

**Benjamin Jones** of Standard Sprinkler Corp. joined us in March 2008. He is a plumbing contractor. He obtained his installers licenses as an addition to his business. He does not actively install systems. Standard Sprinkler Corp. is located in New London Connecticut. Benjamin's company has been in the plumbing business since 1952.

**Spencer R. Beers**, of Spencer Beers Septic Tank Service Inc., joined us in March 2008. Spencer joins is father Spencer A Beers a long-time member of COWRA is the owner and operator of his company. His company provides complete excavation and installation work. His services also include cleaning and pumping.

## COWRA BOARD MEETING

On March 19, 2008 the Board of Directors met at Jerry's Pizza in Middletown CT. The following was discussed:

Frank Talarico and Bill Hall attended the Code Advisory Committee which also met on March 19 2008. The committee discussed many of the bills the state is watching.

There are many bills before the legislature that affect our industry. Some of the bills discussed are designed to regulate alternative systems. However, due to the lack of funds available, many of the bills presented before the legislature will not be addressed. The directors of the CT Public Health Association and the Home Builders Association are also watching these bills. The Home Builders Association said that they will let their lobbyist assist us in those bills related to both our trades.

The state is trying to get regulation in place before they approve any more alternative systems. Right now, these systems are governed by the Department of Environmental Protection. The State Department of Public Health is going to take over the governing of alternative systems under 5000 gallons a day. It is their hope that the regulations for these systems will be in place by December 2008. However, they may take longer to write than is anticipated.

The state plans to have all the new regulation readied for the next Technical Standard. Therefore, the state intends to have training, operations and managements systems in place before approving any more alternative systems.

The State of Connecticut is looking for input from our association and other associations to help put together programs for training installers and management and the implementation of all that is needed for a workable program. The state wants certified licensing for installation of alternative systems, either by the manufacturers or an alternative training program.

Other states have approved these systems, only to find that they had no way of tracking or checking the systems to ensure that homeowners were maintaining them in good order. Connecticut does not want to find itself in this position so there is much that is needed to be done prior to the approval of more alternative systems.

Bill 5630 will allow property owners restitution under CGS19a-17. This allows health departments to take action against people who install septic systems without a license. As the law stands now, only licensed installers can be penalized. However, there is nothing health departments can do to those without a license.

Bill 5701, coming before the legislature, will make it mandatory for notification by certified letter, sent to affected neighbors when systems are being installed less than 75 feet from their well.

The state received funding for two Soil Workshops. The cost will be \$150.00 for installers and engineers and \$35.00 for local health directors.

The DEP is doing consultant studies on decentralized sewer system management in Connecticut. This is to see what areas are being impacted and where sewers are needed.

The DEP initiated a fund for two web-based electronic tracking systems for decentralized sewer systems. One system will be for the DEP and the other is for the DPH. These would be used in enforcing and monitoring the different systems.

The next Technical Standard will be revised at the end of 2008 or the beginning of 2009. The state is looking for input from licensed installers before they put together the new regulations. This is your chance for a voice in the regulatory process. Members should bring their concerns about these regulations to COWRA or write directly to the State in order to have a say in the changes to regulations.

One changes the state is considering is allowing ¾ inch stone in all systems. This stone is currently allowed in Green Leach and Geomatrix Living Filter. This size stone may be allowed in all systems except for drywells, leaching pits, or galleries.

There is a circular coming out about geo-thermal well separating distances. Currently it is 75 feet. The state is going to allow it to go down to 25 feet from watertight pipes and 50 feet from leaching systems. Geo-thermal lines not used in wells but for horizontal trenches through the ground, will be treated like utility trenches.

The State will be addressing green septic tanks in the new regulations. Manufacturers will have to document that the tank is older then 28 days, unless the tank has been treated with additives. Documentation will be needed as to the additives used in the tank.

The State is looking into proprietary leaching systems application worksheets, sizing and storage criteria. The State wants to improve on the calculations being used for sizing the new systems. The State is looking for input in this area and for scientific evidence of why we should allow this size system, so that they can be sure of the application rates.

The State also will be considering pump system storage requirements. Currently the state cannot regulate basement pumps. They are considering a dual pump system that would cut down on the reserve capacity needed for these systems.

## DATES TO REMEMBER

Our annual meeting will be held July 19, 2008.  
See insert for details

The state will be holding its Soil Workshop  
October 23 and 24, 2008.  
<http://www.ct.gov/dep/site/default.asp>

### Installers, Designers, Perc Tests, and Percometers

We all know what an Installer does. Or do we? They are the men and women that operate the machinery, shovel stone, lay pipe, and do almost everything else related to installing subsurface sewage disposal systems. This is true but Installers are more than what we generally consider them to be. They are not just Installers but they are, and always were, the Designers of almost all of the replacement (and some new) septic systems. They are also the Designers of all but a very few of the code-compliant replacement system areas when compliance with Health Code Section 19-13-B100a is required.

Being the Installer/Designer is no trivial role. When an Installer signs and submits a septic system plan to a Health Department he or she is making a statement about a lot of things. One is that all of the data on the drawing is accurate and in compliance with all of the health code, zoning regulations, wetlands regulations, and all of the other regulations that pertain to a property's improvement or development.

In order to design a septic system, there are several basic and some not-so-basic things that must be considered. One of the most important is the Perc Test. The *Percolation Test*, the *Perc Test*, and *Perk Test* are all accepted names for the same test.

The perc test has been used for over a hundred years and, except in only a few instances, has been done exactly the same way for all of that time; a small hole is dug and filled with water. As the water drains from the hole into the ground periodic measurements from a reference point to the surface of the water are made using a tape measure. The uniform rate at which the water enters the soil is then calculated and recorded. The rate is expressed in minutes per inch.

Simple. Anybody could do it. But what is the quality of the data? Can the person doing the test read the tape measure accurately and at the same time decide exactly when the end of the tape touches the water? What if the water is two feet below the ground's surface? Is *close enough* good enough for you? Is the measurement 17 1/4 or is it 17 5/16? It doesn't matter you say. Well, it just might.

A mis-calculated perc rate due to inaccurate measuring can mean the system you design could fail prematurely. For example; let's say the perc data says the rate of absorption is 10 minutes per inch. But suppose that data is not accurate and the actual rate should have been 10.5 or 12 or 21 minutes per inch. You, as the Designer, will then be installing a system which will be significantly undersized in both square footage and length (MLSS). And you, as the Designer and Installer, will assume all or most of the liability if (when) that system fails prematurely. Nobody wants that; not the homeowner, not the Sanitarian involved, and certainly not you.

Not enough can be said for having accurate data and enough perc tests. A single perc test is not enough; two are better, and three or more are preferred.

Go easy on me here- I can hear the protests already; "...the Perc is not my responsibility-the Sanitarian ran them", or "...the Sanitarian said one is good enough", or "...the Sanitarian didn't presoak it and he stopped the test at exactly one hour", or "...there was still six inches of water in the hole when the Sanitarian left the site". I hear these again and again.

Excuses like these are no defense for not having adequate data; remember that it is still *your* design, *your* system, and *your* responsibility. Ask any Installer who has been involved in a lawsuit over a failed system about who took the blame and who paid for the repair to the failed system. You guessed it. He did and he paid for the lawyers and he lost days worth of work when he went to court or gave depositions.

There is a better way to conduct perc tests however.

By using a tool called a Percometer very accurate measurements can be made. This tool eliminates errors due to trying to watch the end of the tape touch the water while you try to read the measurement. Can the person doing the test really read the tape to 1/16 of an inch while watching the other end two feet deep in the hole? Is that person able to read the tape to 1/16" or does the data show that the tape was read to 1/4" or 1/2" increments only? If the data is only accurate to 1/4" or 1/2" readings there is almost zero percent chance that you have good data to design with.

We've all seen perc data where the last three readings are all exactly 1/4" apart. If one reading was 6 1/4, the next 6 1/2, and the last 6 3/4 we would have a 40 minute per inch rate, right? Yes, but if the first measurement was really 6 5/16, the second 6 7/16, and the last 6 5/8 the real rate would be, at best, 3/16" in ten minutes or 52 minutes per inch. This is an enormous difference and an enormous error. An undersized system will unquestionably be designed and installed.

## Percometer



A percometer helps eliminate bad perc data and ensure properly sized systems. A quality Percometer is lightweight, easy to carry, and simple to use. You simply place it in a properly presoaked hole, fill the hole with 12 inches of water and read the measuring scale as the water recedes. There won't be errors due to trying to balance the tape measure against a stick, no stuck or rusted tapes, and no guessing whether or not the reading is 14 1/8 or 14 1/4. You get reliable data and reliable designs. Remember, you need a stabilized uniform perc rate before you can end the test. There is no time limit and no rule about stopping the test at one hour. This is especially important for sites with soils that have rates of 30 minutes per inch or more.

Make sure that the perc hole is in the same portion of the soil that the leach field will function in and never perc multiple soil horizons at the same time. Also don't perc non-native or disturbed soil. The only way to determine the proper depth for the perc test is by evaluating a deep test pit first. If you want more perc data ask to have more tests done. If you're not comfortable with the data re-soak the hole and run the tests again. More presoaking is always better. And one more thing- there is no rule about using ten-minute intervals. In slow soils 15, or 18, or 20, or even 30-minute intervals are O.K. and even preferable.

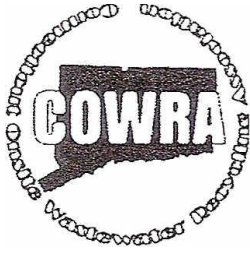
Talk with the Sanitarians you work with. Discuss the accuracy of the perc data and the number of perks that are done. We Sanitarians learn as much from Installers as you can from us. Build a relationship with us; our goals are the same as yours- to have reliably designed and installed septic systems that will last for indefinite lengths of time. To do that the basics need to come first. Perc data and site evaluation are the beginning. If the project doesn't start well, it won't end well.

Responses are encouraged.

[jl@qvh.org](mailto:jl@qvh.org)

*John Laudano is a registered Sanitarian at the Quinnipiac Valley Health District and has experience with hundreds of septic systems and at least as many site evaluations.*

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## FORWARDING SERVICE REQUESTED

### **UPDATES!! Registration Information for 2008 State Installers & Cleaners-Exams**

You MUST contact the Department of Public Health to register for the Installers & Cleaners Exams. Attendance at the COWRA Installer School DOES NOT register you for the State exam. Please contact D.P.H. at 860-509-7559 for any information pertaining to your results and license. You may also contact them by going to [www.dph.state.ct.us/licensure/apps/subsew.pdf](http://www.dph.state.ct.us/licensure/apps/subsew.pdf)

or

[http://www.ctgov/dph/lib/dph/environmental\\_health/enviromental\\_engineering/pdf/techstd\\_07.pdf](http://www.ctgov/dph/lib/dph/environmental_health/enviromental_engineering/pdf/techstd_07.pdf)

### **2008 Examination Schedule**

#### **Subsurface Sewage Installer/Cleaner**

##### **Exam Dates**

September 05, 2008

December 05, 2008

##### **Application Deadlines**

August 01, 2008

October 31, 2008

**Connecticut Onsite Wastewater Recycling Association**  
**For a copy of COWRA's 2008 study guide please call (860 267-1057)**