ONSITE WASTEWATER RECYCLING INDUSTRY Fall 2009 Fall 2009 Fall 2009

LEEDing the Way for NOWRA Member Opportunities

WERF Water Softeners
Research Workshop

How to become a successful RME







ONSITE Journal NEWS FOR THE ONSITE WASTEWATER RECYCLING INDUSTRY



National Onsite Wastewater Recycling Association, Inc.

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Technical Practices - Allison Blodig

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Business Benefit Program Members for 2009



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National Onsite Wastewater Recycling Association

MESSAGE FROM THE PRESIDENT

Fall 2009



PresidentThomas Groves

Welcome to the second issue of the NOWRA Onsite Journal for 2009. As you may have gathered from the packaging, this issue of the NOWRA Onsite Journal is unlike any previous issue. This edition is a direct benefit of the newfound partnership between COLE Publishing and NOWRA. We'd like to thank COLE for assisting NOWRA with this publication and for their ongoing support of our organization and the onsite industry as a whole.

So you may be asking yourself, "Why is this issue with the Onsite Installer magazine?" That's a good question. NOWRA's collaboration with COLE started a few years ago with COLE's support and promotion of our past Installer Academies and Annual Technical Conferences. This led to discussions on how we could continue to partner.

Here are just a few of the great benefits our new Partnership with COLE Publishing will offer NOWRA members and Business Benefit Program members:

Onsite Journal – The NOWRA Board made the decision to cut back on the Onsite Journal for 2009 to reduce costs. COLE graciously offered to assist NOWRA with maintaining the publication on a quarterly basis. By combining the two publications, it will increase both of our circulations and our exposure. This is a great opportunity to be seen in the NOWRA's Septic Locator.

Installer Academy – NOWRA was looking for a different location for the Installer Academy, and upon COLE's suggestion, the Pumper and Cleaner Environmental Expo appeared to be a great opportunity to showcase our Academy. So we are pleased to be offering the 5th NOWRA Installer Academy immediately prior to the Pumper Show in Louisville, KY in February 2010. This event will include the traditional NOWRA Backhoe "Roe-D-Hoe" which will be held in the exhibit hall during the Pumper Show hours for all to see and attend.

There have also been many other changes with NOWRA since my last president's message – addressing issues concerning the economy, affiliates, communications, and the conference. The downturn in the economy has led to decreased professional memberships and attendance at national programs all across the country. Unfortunately, our industry is no exception. Although we are beginning to see a turnaround with the economy, it still may take a year or more before our industry feels the effects. On the average, our affiliate groups are seeing a 30-40 percent decrease in membership. This has prompted some of NOWRA's traditionally stronger affiliates not to maintain their affiliation with NOWRA for 2009. Given the current state of the economy, reductions in state membership, and local issues, the NOWRA Board fully understands and accepts these decisions with the hopes that they will be able to re-affiliate in the near future.

As many of you may be aware from our new NOWRA "e-News" communication, NOWRA is under new management with one of our affiliates,

the Washington OnSite Sewage Association (WOSSA) providing interim support. The NOWRA Board's decision for this move was primarily due to financial constraints with the previous management team, BTF Enterprises. The contract with WOSSA is a temporary arrangement based on a reduced level of administrative support to bridge the gap to the new "NOWRA." We greatly appreciate the support of the WOSSA Board as well as John Thomas, WOSSA executive director, and Sherene Lewis, WOSSA administrative manager, for helping NOWRA to make this transition immediately following the April Milwaukee conference. It could not have gone smoother.

The good news is that the NOWRA Executive Committee and Board of Directors have been working diligently to build from our many beneficial partnerships while also formulating a plan for the future. The plans include more joint conferences, such as the NOWRA Installer Academy at the 2010 COLE Pumper Show and the tentative plans for a U.S. EPA MOU Super-Partner Conference in 2011 with NEHA and SORA. We also plan to move forward with our resource library for NOWRA members and to be more prominent with national issues and timely responses to EPA, Congress, and others on national issues of interest to our members.

Additional changes include the re-evaluation of our membership dues rate for NOWRA affiliates and for Business Benefit Program members. While NOWRA has been doing all of this, we have also been attempting to keep our membership up-to-date with the news in the industry, trends in the housing/construction market, U.S. EPA MOU partner news, etc. through the new NOWRA electronic monthly newsletter, "NOWRA e-News." The e-News is not meant to replace the Onsite Journal; it is just a mechanism that we can use to reach our membership in a more timely fashion with relevant and timely news for the industry.

The NOWRA Board is excited about future partnership opportunities that we will be able to reveal in the near future. These partnerships will greatly strengthen NOWRA in the eyes of our members, affiliates, and the on-site industry. We plan to maintain and build on our partnership with COLE Publishing through additional issues of the Onsite Journal as well as other ventures. We appreciate the support that COLE has provided NOWRA during this transitional period, and we ask that our members also thank COLE and support their programs and activities, such as the Pumper Show.

In closing, I would just like to thank the NOWRA Board of Directors and Committee Chairs who have been burning the midnight oil in running this organization on a volunteer basis since June. Sometimes it can be a thankless task, but we would not be where we are today without your support and commitment.

Sincerely,

Thomas W. Groves NOWRA President



LOCAL AFFILIATES' UPDATES



Colorado Professionals in Onsite Wastewater (CPOW)

This has been an exciting year in Colorado. CPOW has been working to create model statute and guideline documents to help guide change in the OWS industry in Colorado. The stakeholder process is underway to listen to concerns and support of those that could be affected by new legislation that would incorporate at least some of the CPOW wish list. CPOW is moving forward to support legislation that would represent what many local regulators and others feel are changes that have been needed for quite some time. The suggested changes are not limited to but include:

- "Transfer of title" inspections for OWS
- State-wide certification/credentialing of OWS practitioners

The Board of Directors has met with legislators, lobbyists, and the Colorado Department of Public Health and Environment (CDPHE) to help chart the best course for improving the standards of the on-site wastewater industry in Colorado. Much work lies in front of the organization, but a dedicated group is ensuring the ball keeps rolling forward. We are currently scheduled to present at the Colorado Water Quality Control Commission, Colorado Environmental Health Association, and our own CPOW annual conference. We will be continually meeting with stakeholders across the state. CPOW is looking for support from other state regulatory agencies or NOWRA affiliate groups that have been down this road before. If you would like to learn more about CPOW and their activities or you feel you have wisdom to offer please visit our Web site at www.cpow.net or contact Becky Roland at broland@phoenix-amc.com.

Minnesota Onsite Wastewater Association

Legislative/Regulatory

The MPCA (Minnesota Pollution Control Agency) has made major changes to the SSTS (Subsurface Sewage Treatment System) Rules effecting on-site system design, installation, maintenance and inspection. These changes include: Advanced training and licensure requirements, increased septic tank requirements, and a new process for product registration for treatment and distribution products. Several MOWA members and our lobbyist, Gary Botzek have been actively involved in the legislative process.

Conventions/Seminars

The Summer Seminar is scheduled for Thursday, Aug. 27 at Camp Courage/Camp Friendship near Annandale, Minn.

Topics will include:

- Describing and interpreting coarse sandy soils
- Requirements for land application or disposal of flammable waste traps, car wash waste, and sand traps.
- Discussion of the performance of the various distribution media products installed at this site.

• Tour of the Albertville Class A Wastewater Treatment Plant that uses reed plants for treatment and removal of phosphorus and UV disinfection.

The planning has started for the 2009 Annual MOWA Convention. The convention is scheduled Feb. 1-3, 2010 at the Arrowwood Resort in Alexandria, Minn.

Strategic Planning

The MOWA BOD went through a Strategic Planning process in January. The group agreed to focus efforts in two key areas:

- Enhance our relationship with regulatory agencies and continue our participation in the legislative process.
- Membership: The Membership Committee is developing a plan to attract new, younger members and improve the process for recruiting and retaining our volunteers.

To learn more about the Minnesota Onsite Wastewater Association:

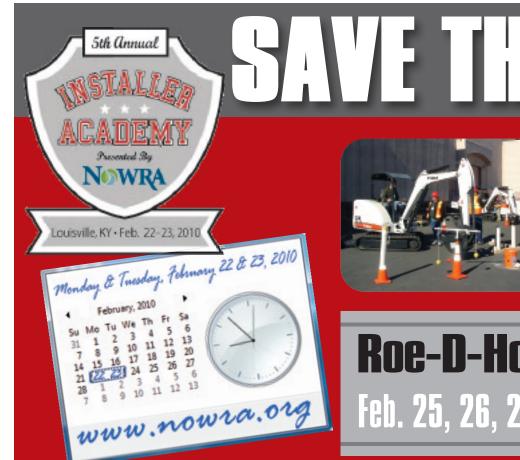
- Visit our Web site: www.mowa-mn.com
- Contact Pat Martyn, Executive Director: (952) 345-1141 or (888) 810-4178

Ohio Onsite Wastewater Association - OOWA

Ohio has good news and bad news to report. First the bad news: The legislative battle for new sewage rules continues with no end in sight. The recently passed budget bill (Amended Substitute HB 1) extends the suspension of the sewage rules to Jan. 1, 2010. This means sewage rules vary county by county and contractors continue to have to obtain a separate bond for each county they work in.

Since the beginning of the year, widely conflicting bills have been introduced to both the Senate and House that would amend the Ohio Revised Code. Two of the proposed bills, SB 110 and HB 141 closely follow the recommendations as set forth by the Household & Small Flow Onsite Sewage Treatment System Study Commission. OOWA supports these companion bills and has testified on their behalf. We are hoping that "science-sense" and common sense prevail and these bills are passed at the beginning of the year.

Now for the good news. Ohio is the only state to be awarded federal stimulus money, now called the American Resource Recovery Act, for the repair or replacement of household sewage treatment systems. Five million dollars will be used for homes with failed sewage systems. Qualifying homeowners must pay at least 25 percent of the total project cost and contractors must follow federal requirements including the Davis-Bacon Act. This is a much-needed program that not only benefits homeowners, but also gives a boost to contactors during these tough economic times while protecting the environment and public health.



Roe-D-Hoe Competition

Feb. 25, 26, 27, 2010 Louisville, KY



ACCOMPLISHING THE WORK OF N

Recycling Association

Reports from Our Committees

The real "work" of any organization is done by its committees. This is certainly true of NOWRA! Many members volunteer their time and expertise to work on a broad range of issues that affect our industry, our affiliates, our businesses, our practices, our regulations, and the public we serve.

Much has already been accomplished this year by our committees. Read below the mid-year reports from each of the committees. Please contact the committee chairs with comments or ideas that you have to improve or expand what NOWRA does. Better yet, ask to join a committee by e-mailing a committee chair or applying online at http://www.nowra.org/committees.html and help us be better!

(Sara Christopherson, Chair)

The Education Committee's mission is to provide member education on current and emerging issues through the annual conference, Installer Academy, specialty workshops, and roundtable discussions, which offer CEU's for attendees.

At this year's Annual Conference, which was held in April in Milwaukee, Wis., had an excellent educational program that included a pre-conference workshops, over 35 technical presentations, NOWRA's two-day "A to Z" overview of on-site wastewater treatment, keynote speakers from Canada, EPA, and the Milwaukee Metropolitan Sewerage District, and a field trip to five different

on-site treatment systems in the Milwaukee area. Proceedings of the educational program were produced on CDs and are available on NOWRA's website.

Currently, the committee is working with the Annual Conference Committee to develop an educational program for the two-day Installer Academy to be held together with the Pumper Show in February 2010 in Louisville, Ky. The committee is also developing a NOWRA program for the Pumper Show's Education Day.

If you are interested in contributing to the committee contact Sara Heger Christopherson at heger001@umn.edu. The EC has a conference call the third Wednesday of the month at 1:00 p.m. EST. Between meetings committee members are expected to contribute to one or multiple programs the education committee is working on. This can range from a few hours per month to as much time as one has to volunteer.

(Judy Sims, Chair)

In December 2008, the NOWRA Executive Committee appointed a Task Force to develop an OnLine Resource Library concerning on-site and decentralized wastewater treatment. This project was included in the 2008 NOWRA Strategic Plan as an essential service that NOWRA will provide to members and affiliate groups. The library was requested both by the affiliates to find articles to utilize in their publications as well as manufacturers who are looking for case studies and research.

We envision that the NOWRA Resource Library will become the "go-to" Web site for on-site/decentralized information. The library will include NOWRA conference materials, presentations, and white papers and other available research and case study materials as well as links to other information such as NOWRA affiliate newsletters, state/local regulations and informational/ educational Web sites, homeowner educational materials, training opportunities and manuals, septage disposal information, university resource materials, and national and regional EPA on-site information.

Judy Sims and student aides at Utah State University are presently working on compiling the information that will be included in the Resource Library. We hope to have a draft site developed by late fall 2009.

Specific activities that we are engaging in include:

Defining and developing the overall concept and outline of the site, including deciding and approving what materials we want to include and participating in the design of the organizational framework for the library materials.

Identifying links to informational and educational resources information that can be included on the Web site (we will seek approval for all links before we add them to the site and we will consider copyright laws).

We are still looking for enthusiastic volunteers to help us! If you are interested in participating, please contact Judy Sims, task force chair, at jlsims2014@gmail.com.

(Randy Miles, Chair)

Due to the poor economy, NOWRA is looking carefully at whether enough interest and support exists to hold our 2010 Annual Conference in St. Louis, Mo. in October. To defray costs of a possible conference, the Conference Committee is looking at the potential for holding a joint meeting with the American Society of Agricultural and Biological Engineering (ASABE) in St. Louis. ASABE has been a strong supporter of on-site and small community wastewater treatment systems, which held 11 international symposia on on-site wastewater treatment since 1972.

nstaller Academy

(Tom Fritts, Chair)

NOWRA is excited to partner with the annual Pumper Show Feb. 24th thru 27th, 2010 in Louisville, Ky. by offering our annual "Installer Academy" on Feb. 22nd & 23rd. The Installer Academy will offer valuable training covering several topics in the on-site industry. And what a great opportunity to travel to one location for national training and walking through one of the finest shows in our business. Don't worry we have not forgotten the Backhoe Roe-De-Hoe. The defending champion along with state champions will be competing all week on the floor of the show. Come for the education. Come for the show. Come for the fun. We will have plenty of all.

2011 Super Conference

(Craig Gilbertson, Chair)

NOWRA is working to expand our working relationships with other associations with similar water quality agendas. Currently we are planning a "super conference" in Columbus, Ohio to partner with the National Environmental Health Association and the State Onsite Regulators Alliance to offer the opportunity for each of our memberships to join together to discuss mutual goals and how we can better coordinate our activities. We intend that this conference will offer an excellent opportunity for exhibitors to reach a broad range of potential clients in one rather than three shows. Our hope is that the "super conference" is a large success and spurns interest to partner with other associations in the future.

nance

(Greg Graves, Chair)

Last year and thus far in 2009, the economic downturn has made it difficult for NOWRA and its affiliates to sustain member services and conference activities. Fortunately, it appears at this time that NOWRA will have sufficient operating funds for 2009 although, like most other organizations, we are feeling the effect of the recession.

The Finance Committee is actively working on several projects to help secure the future of NOWRA. Those projects are:

- 1) Wrap up remaining invoices from the Milwaukee Conference: There are a few bills that remain to be resolved, and the committee is helping the treasurer address them. We anticipate these issues will be resolved soon to allow NOWRA to move forward.
- 2) Evaluate Dues structure: The Finance Committee will be working to evaluate the way NOWRA funds its activities, including State Affiliate dues and Business Benefit Partnerships. The goal is to provide a recommendation to the Board of Directors by October 1. Members with thoughts or interest in this area are invited to share their ideas with the Finance Committee. Comments can be directed to Greg Graves, phone number (419) 668-4471, e-mail: ggraves@norweco.com.

The Finance Committee is always looking for additional members to help the organization. If you have any interest, please contact Greg Graves at the above referenced information.

Marketing & nmunications

(Mike Stoll, Chair)

The Marketing & Communications Committee has been working hard this year to maintain communication with our membership and other interested parties regarding NOWRA's current activities, accomplishments and other information relevant to our industry.

Activities that are on-going are:

- Publishing the monthly "e-News" to provide a timely summary of events and information of interest to our industry
- Working with the Web & Technology Committee on NOWRA's Web site to post a help wanted/jobs available page
- •Assisting other committees in editing and publishing technical documents for our membership. Recent documents completed for the Technical Practices Committee that may be found on NOWRA's Web site include:
- •A "white paper" for engineers to describe the benefits of decentralized wastewater treatment facilities to small community clients (see Technical Guidance for Homeowners) regarding the selection and use of water softeners in homes served by on-site systems
 - Plans for the future documents include:
 - Homeowner on-site system guidance to be redone in coordination h. Tech. Practices
- Several one-page documents on homeowner-related topics such as septic tank lid safety, etc. in coordination with Tech Practices

(Allison Blodig, Chair)

The Technical Practices Committee's responsibility in NOWRA is to develop technical materials on proven and successful technologies, soil science, transmission, installation, and recycle/reuse practices that ensure the effective implementation of safe on-site systems and water quality protection. We are always interested in having new members and have added three recently. Jill Hass, director of research and development at Clearford Industries Inc.; Collin Bishop, head of government relations and business development at Bord na Móna Environmental Products U.S. Inc.; and Bob Pickney, chief technical officer at Adenus, Inc.

The TPC just finished a white paper that promotes decentralized options to decision makers of small communities faced with upgrading their wastewater treatment services. This document was submitted to the Board and approved on June 25. It should be available at NOWRA.org soon.

The TPC, with help from the Education Committee, updated the Onsite System Guide for Homeowners. This document will be finalized and submitted to the board for approval at the next board meeting.

We are in the process of reviewing information from the Leadership in Energy and Environmental Design (LEED) to determine how our manufacturer members could fit into this program. We are also planning to comment on and update fact sheets for several types of technologies. These fact sheets will all follow a standard format and give basic introductory information for use by our installer members to educate themselves, prospective clients and/or regulators unfamiliar with technology.

If you have any questions about the TPC or would like to become involved please contact Allison Blodig at (913) 422-0707 or by e-mail at ablodig@biomicrobics.com.

al Affairs

cal Practi

(Mary Clark, Chair)

The External Affairs Committee is focusing on efforts with the EPA MOU Partner group, which has expanded this year to include 14 national organizations with a water connection. Here are some of the accomplishments of this group and the individual organizations over the past 6 months:

A tri-fold brochure describing the partnership and the work they are doing has been developed and recently published (http://www.epa.gov/owm/septic/pubs/final_decentralized mou agreement 12-17-08.pdf).

- A MOU Trainings/Tools Matrix has also been developed and is being completed with each organization's types of training programs and links to resources compiled into one spreadsheet.
- The MOU group is compiling research needs priorities for promotion to become real projects, including scientific and engineering priorities, to social, economic, management and education and outreach topic areas.
- \bullet EPA has sponsored a conference on surface discharging decentralized systems.
- EPA has also sponsored 2 webinars on the Economic Stimulus funding opportunities and how decentralized systems qualify.
- WERF (werf.org) has published new fact sheets on creating a Responsible Management Entity (RME) that should be a great starting point for community stakeholders to consider the various administrative and technical levels of management available.
- The Water Environment Federation has asked NOWRA (which we happily accepted!) to be a sponsor to their conference entitled, Cities of the Future 2010 (http://www.wef.org/ConferencesTraining/ConferencesEvents/CitiesoftheFuture/).

We are looking to expand the membership and work of the External Affairs Committee, and anyone interested in helping, please contact Mary Clark (marykclark@comcast.net), cell (802) 917-4746. Thanks!

Model Code

(Tony Smithson, Chair)

While interest in performance-based codes for regulating onsite systems seems to grow, implementation of such codes has been slow. To help initiate code reform, the Model Code committee is sponsoring a Midwest regional effort to develop a regional code for product approval. The states who have agreed to participate are Illinois, Iowa, Minnesota, and Wisconsin. The first meeting of this group is expected in the third quarter of this year.

(Brian Scheffe, Chair)

The NOWRA State Affiliate Group has been meeting monthly in order to keep the membership well informed as to the changes and most recent developments within the NOWRA community, as well as to solicit the opinions of the greater membership to help better inform the NOWRA Board of Directors.

Some of the most critical issues facing NOWRA at this time could substantially impact the organization and member organizations must be kept abreast of how such changes might affect NOWRA and its affiliates. Some of the strongest opinions voiced thus far have been related to the I4A database/septic locator, the temporary transition of directorship to the Washington OnSite Sewage Association (WOSSA), future conferences, the Onsite Journal, possible organization partnerships, and the Installer Academy.

The group of affiliate leaders will continue to meet monthly until further notice. It is not only important to keep the member organization well informed, but also to continue to solicit their opinions.

OSJ Editorial Board

(Matt Byers, Chair)

NOWRA's Onsite Journal (OSJ) is being cooperatively produced with COLE Publishing. COLE will include the OSJ in its popular 'Installer' publication as an insert. NOWRA has recently convened an editorial board to replace the paid staff that once performed the duties of collecting pieces for the OSJ. This board is just getting started and is working on its first issue, the one you're now reading. The OSJ board covets your input, as we all grow together seeking to produce an informative and useful resource for the onsite community.

Web & schnology

(Ron Suchecki, Chair)

NOWRA's website is a critical portal for our members and interested parties to learn of NOWRA's activities and initiatives and find technical and public interest papers regarding the onsite industry. The Web & Technology Committee is looking for enthusiastic members to help with the layout and content of the website and to incorporate such things as RSS feeds, slide shows, training modules, job boards, interactive surveys, and other ideas. If you are interested in this important function, please contact Ron Suchecki at ron@hootsystems.com •

New Fact Sheets Provide Practical Guidance on How to Become a Successful RME



We know that good management of decentralized systems is essential to ensure minimum standards of public health and environmental protection and to make a sound contribution to more sustainable infrastructure. To do this, we need more successful, responsible management entities (RMEs), from contract service providers through to own/operate arrangements. A recent WERF National Capacity Development Program funded project provides practical guidance on how to become such an organization. The Institute for Sustainable Futures, UTS led the project, with valuable support from Stone Environmental, Scott Johnstone, Richard Pinkham, Elizabeth Dietzmann and many others.

The goal of the project was to investigate the collective experience from across the U.S. and to develop a resource that helps organizations work out how best to deliver locally—appropriate services, that are financially and socio-economically feasible, and that provide adequate public health and environmental protection.

Two successful workshops were held, one in Memphis NOWRA meeting in April 2008, which attracted about 40 registrant covering regulators, public RMEs, private RMEs, successes, failures, and 'wannabe-s' (those who are looking to set up businesses in this space) who shared their stories and experiences. A second workshop was held at WEF's inaugural Sustainability Conference in June 2008 in Washington D.C. with eight national leaders from inside and outside the field who considered critical dimensions to what's needed for RMEs to be successful.

The result is a series of 10 fact sheets now available on the WERF Web

site at www.werf.org/rme. These sheets contain all the basics, with lots of stories from real situations, and links to more detailed materials where that makes sense. The sheets target three groups: (i) existing RMEs seeking to improve their operations, (ii) prospective RMEs considering setting up, and (iii) other individuals and organizations looking to enter the decentralized wastewater field, and will significantly aid these groups to establish and run successful RME businesses. •

Dr. Julliet Willetts, research director, Institute for Sustainable Futures, University of Technology, Sydney www.isf.uts.edu.au



Fall 2009 - NOWRA ONSITE JOURNAL

First CIDWT Installer Training Program Train-the-Trainer Academy in St. Louis, MO August 9-12, 2009



The first Consortium of Institutes for Decentralized Wastewater Treatment (CIDWT) Train-the-Trainer Academy introducing the new installer training materials was conducted on Aug. 9-12, 2009. Missouri SmallFlows Organization (MSO) served as the local host for the training event and worked with the St. Louis Plumbing Industry Council to secure the classroom. This installer train-the-trainer event was conducted following the completion of the Installer Training Program project.

The Installer Training Program project focused on development of a training manual and associated training materials. The manual Installation of Wastewater Treatment Systems is a comprehensive document describing the installation of various technological components which comprise decentralized wastewater treatment systems. The installation and startup checklists for these components are the heart of the training manual and guide the classroom instruction. The start-up checklists provide critical information that serves as the starting point for system operation and maintenance. This is essential to the continued use of on-site wastewater treatment systems as a sustainable part of our wastewater infrastructure. The associated training materials included slide presentations and assessment tools. The training



materials bring the science into installing systems by focusing on the why and how to perform tasks rather than using a prescriptive number. Understanding why installation tasks are critical will promote installation of reliable long-term systems. The Installer Training Project was funded as part of the National Decentralized Water Resources Capacity Development Project from the U.S. Environmental Protection Agency and was administered through the Water Environment Research Foundation.

Eighteen people representing 12 training entities in 11 states attended the Academy. The attendees currently help deliver training courses

offered in Florida, Iowa, Kansas, Missouri, Nebraska, New Mexico, Oklahoma, Oregon, Pennsylvania, Utah, and Virginia. The instructors and writing team are affiliated with training programs in Minnesota, Missouri, North Carolina, Rhode Island, Tennessee and Texas. Therefore, qualified instructors will now work with training entities located in 16 states to deliver the installer training materials.

The Train-the-Trainer Academy consisted of a two-day installer training course and an additional training day focused on how to use the materials to deliver an effective training program. The installer training course was an intensive two-day overview of the training presentations. Because of the volume of material developed through the writing project, the training course was extremely fast paced.

The training materials can serve as a reference for taking installer certification and credentialing exams. The course participants had the opportunity to take the examination for the Certified Installer of Onsite Wastewater Treatment Systems (CIOWTS) credential being offered by the National Environmental Health Association (NEHA) following completion of the two-day training.

The qualified instructors will use these materials to develop training courses for certification and/or continuing education units for delivery through their training programs. The training materials provide a starting point for development of multiple training courses for installers and other audiences. Participants indicated they would begin to conduct their first training classes in October and November 2009.

Instructors for the event included John Buchanan, University of Tennessee, Nancy Deal, North Carolina State University, Bruce Lesikar, Texas AgriLife Extension Service and Randy Miles, University of Missouri. Additional writing team members not present at the training event include Sara Christopherson, University of Minnesota, Kitt Farrell-Poe, University of Arizona, David Gustafson, University of Minnesota, David Kalen, University of Rhode Island, David Lindbo, North Carolina State University, George Loomis, University of Rhode Island, and Rebecca Melton, Texas AgriLife Extension Service.

The installer training manual will be available through the Midwest Plan Service located in Ames, Iowa. Midwest Plan Service can be reached by e-mail using mwps@iastate.edu, telephone at 800-562-3618, or web at www.mwps.org. The expected availability date for the manual is October 2009

The writing team thanks the decentralized wastewater treatment industry for their input during development of these training materials. Because of the willingness of this wide array of industry members to share their knowledge, skills and business practices, these materials will serve as a comprehensive resource for installation practitioners for a long time into the future.

To access the checklists in an electronic format or gain information about future CIDWT Train-the-Trainer events covering the Installer, O&M service provider or Analyzing Wastewater Treatment Systems training curriculums please visit the CIDWT Web site: www.onsiteconsortium.org.

Contact information: Bruce J. Lesikar, Texas AgriLife Extension Service, College Station, Texas, b-lesikar@tamu.edu, (979) 845-7453.

LEEDing the Way for NOWRA Member Opportunities



With so many company advertisements flooding us every day with information that promotes their "green", "environmentally sensitive" or "eco-friendly" products, it's hard for conscientious consumers to pick out the best products and services that support truly sound environmental practices from cradle-to-grave. Indeed, some of this ubiquitous greenwashing can be overwhelming to consumers who are willing to pay top dollar for ecologically sensitive products. However, in the building industry, one beacon stands out amongst others, lighting the way for sustainable building development — and that is the Leadership in Energy and Environmental Design (LEED) rating system. In a time when we are bombarded with confusing claims of green technology in everyday products, you may ask: How can an average person tell if a building they are renting or buying is truly sustainable? That's where the LEED sustainable building rating system excels, providing confidence to the purchaser/renter that the building has been designed to the highest current environmental standards.

What is LEED?

Leadership in Energy and Environmental Design (LEED) is simply a rating system, formulated by a committee of experienced industry leaders to assign points to sustainable design. According to the LEED reference book, each point has the basic intent to "improve occupant well-being, environmental performance and economic returns of buildings using established and innovative practices, standards and technologies." Implemented by the non-profit United States Green Building Council (USGBC), the LEED reference guidebooks provide one definition for what constitutes a "green building" currently accepted by industry.

LEED does not certify products. Instead this rating system assigns a credit to the green benefit of the product's inclusion in a building project. For example, a proprietary greywater recycling system could not be LEED certified; however, including the greywater system on a project and thereby reducing the required potable water delivered by the municipal water distribution system to the building by 50% (Water Efficiency Credit 2: Innovative Wastewater Technologies) would earn the project LEED points.

This "point" rating system is used to calculate the benefits from the number of green features included in a building, in a campus or in a community installation from commencement of the design phase through to occupancy. To be considered a LEED building, minimum technical requirements are necessary within the design and/or during construction, and the team of designers blend these features with one another for best efficiencies. The minimum number of points required to be acclaimed as a USGBC's LEED® Certified project is 40 points out of a potential 100. After reaching the benchmarks of 50, 60 and 80 points, the project can be considered LEED® Silver, LEED® Gold and LEED® Platinum, respectively.

How LEED works

The entire LEED rating system is broken into several categories which are more specific to different kinds of building construction such as: Home; Commercial Interiors; Core and Shell; Schools, Healthcare, Retail; New Construction and Neighborhood Developments. Of all of these LEED sections, the two that would most often apply to NOWRA members are the current New Construction (LEED-NC) section and the future Neighborhood

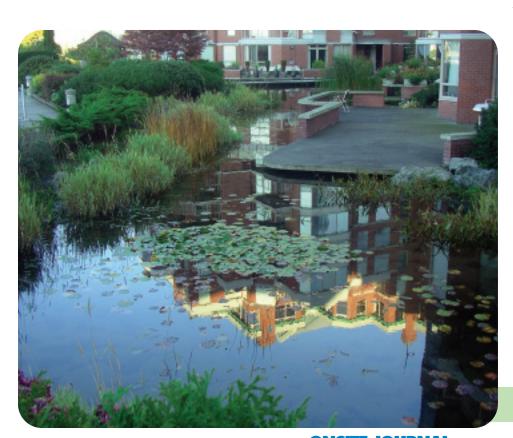
Development (LEED-ND) section, the latter of which is currently under a pilot program and may be introduced later this year.

For USGBC's LEED-NC projects, 100 available points can be allocated from the key performance criteria categories and 10 available bonus points can be allocated from the additional topics. In all LEED rating system sections, the explicit set of environmental performance criteria for LEED certification is organized into five key categories: Water Efficiency (WE), Sustainable Sites (SS), Materials and Resources (MR), Energy and Atmosphere (EA) and Indoor Environmental Quality (EIQ). The two other focus areas are Innovation in Design (ID) and Regional Materials (RM).

Onsite System Applicable LEED-NC Points

Many municipal and state governments are stipulating that new government buildings must receive or could receive a LEED® Certified, or higher rating, thereby increasing the number of new LEED projects in the U.S. NOWRA members who are interested in participating in a LEED-NC project may want to familiarize themselves with the following prerequisites and credits of LEED-NC.

Windmill Development's Dockside Green Townhouses



LEED-NC Rating Category for Project	Possible Points
WE Prerequisite 1: Water Use Reduction	Required
WE Credit 1: Water Efficient Landscaping	2-4 points
WE Credit 2: Innovative Wastewater Technologies	2 points
WE Credit 3: Water Use Reduction	2-4 points
SS Credit 6.1: Stormwater Design – Quality Control	1 point
SS Credit 6.2: Stormwater Design – Quality Control	1 point
MR Credit 4: Recycled Content	1-2 points
MR Credit 5: Regional Materials	1-2 points
RP Credit 1: Regional Priority	1-4 points
ID Credit 1: Innovation in Design	1-5 points

Business Opportunity for NOWRA Members

Many opportunities exist for NOWRA members to join in commercial or campus building projects through the LEED-NC program. However, the on-site wastewater industry has one unique business opportunity that NOWRA members can tap into, and that is the "cost per points earned" economic advantage of introducing an on-site wastewater treatment and discharge system to the project in comparison to other design features that could earn LEED points. One criticism of LEED is that often the assigned LEED points do not reflect proportionally the additional financial burden that design modifications can bring to a project. Instead designers may choose one feature over another based solely on installation costs and not environmental protection value.

For example, a design team discovers that the inclusion of a living green roof on a building's parking lot (LEED-NC SS Credit 7.1) can increase the construction costs of a building by 10% and instead chooses to add public area change rooms and some bicycle stands outside the building (LEED-NC SS Credit 4.2) for considerably less capital costs but earning the same LEED points. Developers then pressure designers to abandon more financially burdensome features.

Even though the point system is not always proportional to the cost of the added features, NOWRA members should be aware that this discrepancy may not apply to on-site wastewater servicing and instead may benefit our market. The addition of tertiary on-site treatment and discharge, stormwater treatment, graywater recycling systems or rainwater harvesting, amongst other on-site technologies, are fairly economical design features relative to other LEED point earning features, and members may be able to sway designers to include these innovative on-site technologies on a project, thereby creating more o-nsite wastewater opportunities. As an example of an opportunity, an on-site graywater separation and reuse for a non-potable purposes system that is topped up with rainwater/stormwater could potentially receive points for WE Prerequisite 1, WE Credit 2, WE Credit 3, SS Credit 6.1, SS Credit 6.2, and ID Credit 1 (ID Credit 1, only if the system exceeds any standards of the previous credits) even if the blackwater is discharged into a local sewer. Additionally, on-site wastewater and stormwater systems can be used to "stack points" (meaning using one feature to obtain points in many credit sections) and our members' products, technologies and local knowledge can exploit this business opportunity that LEED provides.

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holds its 18th Annual Technical **Education Conference & Expo**



NOWRA (National Onsite Wastewater Recycling Association) held its 18th Annual Technical Education Conference in Milwaukee, Wis., April 6-9, 2009. The Conference reflected the struggles felt across the country at other such events. However, it did not affect the number of papers presented, the quality of the presentations, or the educational learning opportunities.

The information presented from the Educational Sessions was rich in panel discussions and provided industry professionals with excellent learning opportunities. Both budding and seasoned attendees experienced a wave of information and new trends in the decentralized wastewater industry to weather this economic storm. They heard new perspectives, learned new skills, and met new people, all with the tools they needed to return to work with a vision for on-site sustainability.

The keynote address given by Mr. Wm. Patrick Lucey, president of Aqua-Tex Scientific Consulting Ltd. and Fidelis Resource Group Inc., spoke about using "Integrated Resource Management" (IRM) to help create resilient cities in these uncertain times. IRM examines how and where water and energy are used and generated, and seeks to co-locate the supply with the demand.

Among the events hosted at the Conference was a Midwest Code Forum on how states can work together to make their regulations more closely based on science. A panel of state and local officials along with local manufacturers were invited to offer their perspectives on a variety of issues. A press release was sent out regarding the roundtable and can be viewed on the NOWRA website at http://www.nowra.org/news_releases.html.

A special session entitled "Weathering the Economic Storm: Business Survival" was a late addition to the program, but a popular one.

The session, led by NOWRA pastpresident Jerry Stonebridge and Valerie Nelson of the Coalition for Alternative Onsite Wastewater Treatment, was open to all who wanted to discuss the state of the economy and how it affects their businesses. This great discussion focused on how NOWRA might "weather the storm." It was the

opinion of the session attendees







A pre-conference workshop on Pharmaceuticals and Personal

Care Products in Wastewater, Surface Water, and Groundwater was also a crowd favorite. This symposium presented the latest research on how best to address the issue of emerging contaminants impacting the environment and advancing

our understanding of the contaminants in on-site wastewater treatment

If all that was not enough, a full day tour highlighting four on-site wastewater treatment sites was conducted for a capacity crowd. Jim Converse, UW Emeritus Professor, Biological Systems Engineering, was the guide for the day. Among the topics addressed was the history of the Wisconsin Mound.

Sites visited included a 1,000-student high school and Cabela's retail store and deli. The tour continued to a 100-home subdivision with septic tanks and pump chambers at each home feeding to ATU units followed by six mounds and finally a Business Center with a number of different businesses including restaurants.

Also held, the annual NOWRA Membership Business Meeting where Tom Groves, the current NOWRA president, gave an overview of the association's status with input from the NOWRA treasurer, Brian McQuestion, and NOWRA vice president, Dick Otis. New programs, initiatives, membership, finances, and partnerships were all discussed. A full copy of the 2009 NOWRA Business Meeting presentation can be found on the NOWRA Web site under the Press Release section.

NOWRA looks forward to new and exciting partnership opportunities for our Annual Technical Conference for 2010 and beyond. Watch for more information on the 2010 annual conference in St. Louis, Mo., and the 2011 USEPA MOU Partner "Super-conference" in Columbus, Ohio with NEHA, SORA, and NESC.

Special thanks go out to our local host, the Wisconsin Onsite Water Recycling Association (WOWRA). Their support was greatly appreciated.





Mark your Calendar Feb 22 & 23, 2010



NOWRA'S 5TH ANNUAL "INSTALLER ACADEMY"

If you are looking for a jammed up, highly concentrated, professionally written and delivered training course, look no longer. The NOWRA "Installer Academy" is coming to Louisville, Ky. Held in conjunction with the spectacular annual Pumper and Cleaner Environmental Expo it will prove to be one of the best investments in time and money any contractor can make.

The "Installer Academy" will include two full days of training including topics you have requested. NOWRA has secured several on-site educators and professionals to share their valuable knowledge and experience in design, installation, inspection and O & M of on-site systems, as well as practical skills needed to do your job and run a successful business. In fact, over 30 individual classes have already been set and 12 instructors are already developing materials for the 2010 academy, including an entire day of education focused on drip dispersal.

Along with the classes presented at the "Installer Academy" you will have the opportunity to visit vendor training rooms where you can sit down one on one with the representatives from the factories. There is nothing like getting information from the horse's mouth.

Brush up on your operators skills and compete in the annual NOWRA National Backhoe Roe-De-Hoe. We will award the coveted first place belt buckle but how about \$1,000 to go along with it? Attending the "Installer Academy" will get you one free shot at the grand prize. Too nervous the first time? Don't worry it is only \$25 for another chance. Thanks to COLE, the event will be held indoors and will surely be a real crowd-pleaser. If you think you are one of the best, there will never be a better place to prove it than at the show in Louisville.

It is not just the "Pumper Show" any longer. Industry professionals like you will be viewing all the latest in pumping technology and vendors from the on-site wastewater industry.

Don't miss this one...Your competitor won't!

The agenda and program descriptions are posted at www.nowra.org/academy.html. Check back often as more details and registration information is made available. •

SEPTIC LOCATOR - Your 24/7 Internet Sales Tool



With over 60 percent of people using the internet to find a service or product provider, it is more important than ever to have a web presence for your business. And that is why NOWRA developed "Septic Locator."

Septic Locator steers customers to NOWRA business members, and it is the premier resource for placing their company's on-site wastewater products and services in front of homeowners, builders, realtors, regulators, and policy officials. No other Web site offers the kind of direct access to on-site wastewater professionals and products like Septic Locator.

As a free service to all NOWRA members, Septic Locator is easy to use and offers the flexibility of being upgradeable if the member wants to make a stronger impression on the Web.

If you are a NOWRA member, just go to **www.septiclocator.com** and click on "Add My Company." Fill out the simple form, hit "submit", and you are well on your way to having your information available to anyone in your area needing assistance. There is no easier way to make your NOWRA membership work for you 24/7 than on the world's most popular site for on-site services!

If you are not a member of NOWRA, isn't this a great reason to join? Visit us at www.NOWRA.org.



Three-State Survey Finds Households Flushing More Organic Material Than Expected Down the Drain



Households are flushing more organic material—including medicines and cleaning and personal care products—down the drain compared to historic data, according to researchers at the University of Minnesota's Onsite Sewage Treatment Program.

The yearlong monitoring of households in Colorado, Florida and Minnesota reinforces concerns that Americans in general may be adding more household chemicals and pharmaceuticals to wastewater.

This pilot study funded by the Water Environment Research Foundation, lead by the Colorado School of Mines and in partnership with the University of Minnesota's Onsite Sewage Treatment Program team, sampled the wastewater of 16 households in three states —Minnesota, Florida and Colorado—for one year beginning in fall 2006. By adding a mechanical diverter to the homes' building sewer, researchers were able to sample water both seasonally and around the clock during a seven-day period for each home.

In addition to an increase in medicines and organic chemicals in the wastewater, researchers found caffeine in all samples that were tested; salicylic acid (the active compound in aspirin) was in about three quarters of samples, ibuprofen in half, and detergent additives and plasticizers in more than three quarters. Researchers also found that water use did not vary from season to season, but was affected by the household's age, with younger households using nearly twice the amount of water per person than households with occupants 55 and older.

The good news is a decrease in the amount of oil and grease flushed down the drain. Concentrations of phosphates were also down—due to phosphate-free detergents and household cleansers—while the amount of nitrogen in household wastewater remained the same.

"It's a little like going through someone's trash can—you get a snap-shot of what's being used inside the home," said WRC research assistant Jessica Wittwer, who was the field sampler for Minnesota. "While fewer households are flushing oils and grease down the drain, households across the board are using more pharmaceuticals and stronger, anti-microbial and nonbiodegradable cleansers. The concern with pharmaceuticals and nonbiodegradable chemicals is their long-term effect on the larger ecosystem and food chain.

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The literature search is available at www.ndwrcdp.org/publications (Lowe, K.S., N. Rothe, J. Tomaras, K. DeJong, M Tucholke, J. Drewes, J. McCray, and J. Munakata-Marr. 2007. Influent Constituent Characteristics of the Modern Waste Stream from Single Sources: Literature Review. 04-DEC-1) with the final project report anticipated in July 2009 with additional publications forthcoming. For more information on the two university programs see http://smallflows.mines.edu/ and http://septic.umn.edu.





Collecting samples in frozen Minnesota





BY JOINING THE NATIONAL ONSITE WASTEWATER ASSOCIATION (NOWRA), YOU ARE ENTITLED TO IMPORTANT BENEFITS AND OPPORTUNITIES THAT CAN HELP MAKE YOU MORE SUCCESSFUL.

As a NOWRA member, you can:

- Have your business, products and services listed and promoted nationally though the NOWRA Septic Locator
- Become directly linked with building and development interests for business opportunities
- Have access to national and international educators and other top industry professionals
- Stay up-to-date with on-site industry regulations, technology, products and services
- Earn valuable education credits for technical training leading to professional certification
- Have your business and professional interests represented by the only national organization with direct access to state and federal policy officials
- Participate in medical, life and health insurance program for small businesses
- Receive discounts and other promotional savings from national office supply chains
- Network with your peers from other parts of the U.S. and Canada to learn what is happening in other parts of the country and around the world
- Learn about the industry and regulatory trends that could impact your business
- Attend educational sessions (and earn CEUs) taught by leaders in the onsite industry

Other benefits include:

- Onsite Journal Subscription Provides a valuable forum for what is happening around the country
- National Conferences & Training In-depth information in a national & international forum for new information and research
- NOWRA The only national organization that exclusively supports the on-site industry

For more information on NOWRA visit www.nowra.org

WERF Water Softeners Research Workshop



The Water Environment Research Foundation, in partnership with the US Environmental Protection Agency, the National Onsite Wastewater Recycling Association, the Water Quality Association, the Coalition of Alternate Wastewater Treatment, the National Association of Wastewater Transporters and other stakeholders, are sponsoring a research workshop to identify short, mid and long term research needs of the water softener and on-site systems industry. The workshop is being designed to identify technical issues and needed research centered on evaluating whether there are negative impacts to on-site systems as a result of water softener brine, and if so, what can be done to mitigate the problem. The principal stakeholders include the water softener industry, the on-site treatment system manufacturers, consulting engineers and state and local environmental health officials.

In 2002, the U.S. EPA released an update to its decentralized system design manual to assist in proper construction of on-site systems. However, the manual did not include sufficient guidance on the potential impacts of water softeners or steps to mitigate them. Because there was no consensus on key technical issues, the Water Quality Association (WQA) and the National Onsite Wastewater Recycling Association (NOWRA) met in 2007 to develop a common set of goals to move the research agenda forward. Although research projects have taken place, a comprehensive stakeholder driven research agenda is needed to address important unresolved techni-

cal issues around the use of water softeners and on-site systems performance. In an informal survey taken by WERF during the States Onsite Regulators Alliance meeting last June in Atlanta, Ga., state regulators expressed the need for more scientific information on potential links between on-site systems performance and water softener issues which could help inform their regulatory decision making. In the meantime, while more specific information is produced from the research, NOWRA and WQA have collaborated to make available guidelines (see NOWRA Web site) to help inform the industry, residents and homeowners on the best practices associated with water softeners and their use in on-site treatment systems.

WERF is working with a planning committee comprised of representatives from all perspectives of the industry as well as state regulators and the U.S. EPA. WERF is focused on assuring the research plan is comprehensive, affordable and focused on answering the important questions of the industry. WERF will publish the proceedings of the workshop and conduct outreach to gather input from organizations and individuals not able to attend the workshop. WERF is also inviting stakeholders interested in partnering to fund the implementation of the research plan. The workshop will take place in early November 2009 in Washington, DC. For more information, please contact Claudio Ternieden, Assistant Director of Research at cternieden@werf.org or at (703) 684-2470, Ext. 7907.



BUSINESS BENEFIT PROGRAM MEMBERS FOR 2009

SILVER

Delta Environmental **Products**

P.O. Box 969 Denham Springs, LA www.deltaenvironmental.com

Xerxes Company 7901 Xerxes Avenue South Minneapolis, MN

www.xerxescorp.com

Salcor Inc. P.O. Box 1090 Fallbrook, CA

Wieser Concrete Products, Inc. W3716 U.S. Highway 10 Maiden Rock, WI www.wieserconcrete.com

NOWRA Board of Director Elections for 2010

NOWRA is conducting an election for two new members of the Board of Directors. The new director terms are for 3 years commencing on Dec. 1, 2009. The new directors will assist with a leadership role in helping guide NOWRA in meeting the goals of its mission. The NOWRA Board is made up of representation from many sectors of the on-site

The current Board openings are:

- Regulator
- Manufacturer/Supplier

All NOWRA members in good-standing are eligible to vote for the current slate of candidates for the Board of Directors. For the full ballot as well as background information on all of the candidates, please visit the NOWRA election Web page (www.nowra.org/bylaws.html).

The NOWRA Board of Director elections run from Sept. 1, 2009 through Oct. 31, 2009. Election ballots may be mailed or faxed to the NOWRA office. NOTE: Your ballot must include your NOWRA membership number and signature to be counted. Only current NOWRA members can vote, and only one vote is allowed per member.

GOLD

Infiltrator Systems, Inc. 6 Business Park Road Old Saybrook, CT www.infiltratorsystems.com

Ring Industrial Group 65 Industrial Park Road Oakland, TN www.ringindustrial.com

Bio-Microbics, Inc. 8450 Cole Parkway Shawnee, KS www.biomicrobics.com

Zoeller Pump Company 3649 Cane Run Road Louisville, KY www.zoeller.com

Premier Tech Environnement 1 Avenue Premier Riviere Du-Loup, PQ www.premiertech.com

Advanced Drainage System 4640 Trueman Blvd. Hilliard, OH www.ads-pipe.com

Bord na Mona 4106 Bernau Ave Greensboro, NC www.bnm-usa.com

BRONZE

NORWECO

P.O. Box 410 Norwalk, OH www.norweco.com

Netafim USA

236 Hilary Lane Penfield, NY www.netafimusa.com

Adenus Technologies, LLC 849 Aviation Parkway

Smyrna, TN www.adenus.com Front Range Precast Concrete, Inc. 5439 North Foothills Highway Boulder, CO www.flxx.com

Waterloo Biofilter Systems Inc. 143 Dennis Street P.O. Box 400 Rockwood, ON

www.waterloo-biofilter.com

LOYAL SUPPORTER

Arcan Enterprises, Inc. P.O. Box 31057 Clarksville, TN www.arcan.com

SJE Rhombus P.O. Box 1708 Detroit Lakes, MN www.sjerhombus.com

For information on the benefits, or how to become a NOWRA Business Benefit Program member, check out our Web page at www.nowra.org/bbp.html or call the NOWRA offices at 800-966-2942.