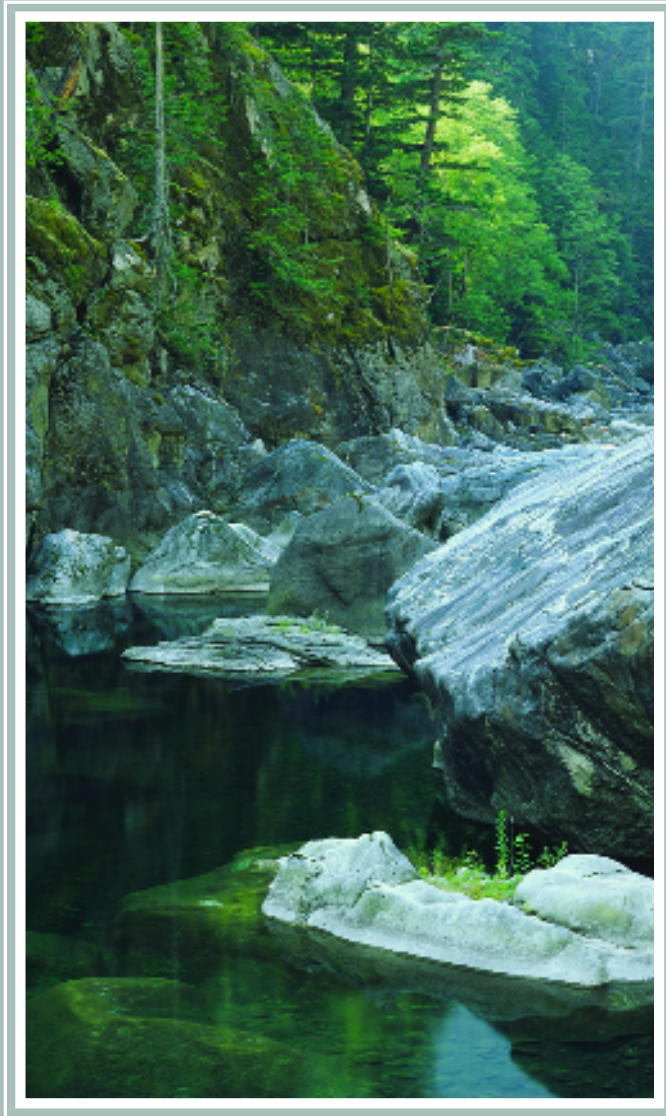




Onsite Journal

National Onsite Wastewater Recycling Association

Volume 12, No. 4
August-September
2003



Legislation
Affecting
the Industry

Membership
Update—
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NEW!! Website: www.nowra.org



Onsite Journal

National Onsite Wastewater Recycling Association

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Go online and check it out!



Linda Hanifin Bonner, Ph.D.,
Executive Director

SUMMER UPDATE FROM NOWRA'S OFFICE

The summer months are not slow!

We are excited about the new membership growth throughout the states, and welcome Indiana, Iowa, Nebraska and New Mexico. New Mexico is in the process of forming their group—and we are awaiting decisions from Iowa about joining NOWRA. Our work in 2003 on behalf of our industry members is increasing. *How?*

- ◆ We are in the process of developing new education and training programs for 2004 that provide for professional advancement and growth.
- ◆ We are maintaining vigilance over pending legislation that affects our members' interests—an example of the ongoing work is described in the articles in this issue—and in the plans we have to address these issues on a national forum.
- ◆ We are producing manuals of practice that will become a practical guide to education and answering questions.
- ◆ We have developed a top-notch education/technical program for NOWRA's conference.

Your involvement in NOWRA is what makes its growth and your membership significant. Committee work and participating in activities provide invaluable networking and insights into new career and professional opportunities. The conference is an ideal time to meet folks working in these activities. With NOWRA's new website, the committees will be able to work online!

NOWRA 2003 Conference Program—Registrations from the Technical Program Announcement are being received and we have a waiting list of exhibitors—a “first ever” for NOWRA. The full conference program is also on the website. Additional copies of the

program & Journal are available for groups to distribute at meetings over the next months—just contact the NOWRA office.

Important Conference Events to Note!

- ◆ **STATE LEADERS' MEETING**
Wednesday morning—7:00 a.m. (November 5, 2003). Please advise us of your attendance—we anticipate a lot of new faces this year.
- ◆ **NOWRA COMMITTEE MEETINGS** are listed in the program and will take place on Wednesday, November 5, 2003, at 7:00 a.m. Room locations are noted; and because of the overlap, we are also combining these sessions.
- ◆ **TECHNICAL EXPOSITION** is sold out! 80 booths; we have a waiting list and space for smaller booths in an adjacent hallway with immediate access to the larger exhibit hall. All breaks + the Monday evening reception will be held in the Exposition Hall.
- ◆ **PRE-CONFERENCE WORKSHOPS**
In addition to the regular promotion of the conference, a special mailing will go to the state regulators about the pre- & post- conference workshops. There are 2 pre-conference workshops this year:
 - (1) CPR for Onsite Systems and
 - (2) The Model Performance Code – each providing CEUs
- ◆ **POST-CONFERENCE WORKSHOP** is still in the development and formulation stages. It too will be promoted with a special mailing. Your input and comments are needed.

◆ NOWRA POST CONFERENCE ROUNDTABLE DISCUSSION: *Approvals, Reductions and Pretreatment —Is the Current System Fair?*

This unique Roundtable Forum addresses the controversial issues encountered daily by industry professionals.

THURSDAY, NOVEMBER 6, 2003 - 8:30 A.M. TO NOON.

- ◆ **NOWRA FIELD/SITE TRIPS** are schedule to occur on Thursday, November 6th at 8:00 a.m. More information will be provided in the next issue—and always watch the website for updates.

NOWRA'S NEW WEBSITE

We have officially turned the switch—but at the same time, we are still adding content in some areas—e.g., state information.

Update on State Links

All state groups will be linked. As stated before, NOWRA will “host” a state site for those who are interested.

- (1) For those groups with existing websites, NOWRA will provide a hyperlink to the state website (same as before)
- (2) NEW! If the state group does not have a website, they may create one within the nowra.org system. These web pages will be created/updated through the nowra.org website. This approach is a little different than the typical “webhosting.” Normally, when you talk about hosting a website, it means that someone (or group) is given a certain amount of hard drive space on a webserver; and they will upload their

information contents within their system's website to it. This process is somewhat technical, and not for just anyone to do.

With the nowra.org site, NOWRA will provide an easy-to-use web interface that allows groups to create and modify web pages. Graphic layouts in these web pages that may have been professionally designed will not be able to be used. These sites will be displayed within the framework of nowra.org—just as we create different web pages now that all have the same top/bottom graphics. If needed, NOWRA's website manager could create new header graphics to distinguish state groups from the main website.

Requirements for a state group to create a website in NOWRA's system

- (1) A computer with a web browser, just like you use to view any other website.
- (2) When authorized users (state members) log into NOWRA's website, they will be able to edit any webpages in their personal "content library." This action

requires designating or placing one person in charge of creating the page, and making any updates.

INVESTIGATION OF DIRECTORS' & OFFICERS' LIABILITY INSURANCE FOR STATE GROUPS

According to NOWRA's insurance company, we must have all groups participating in the program. There is additional information to be completed by all of the state groups and once I have the costs determined, I'll take it to the Board for action.

2004 & 2005 CONFERENCE LOCATIONS

The 2004 Conference is scheduled to occur in Albuquerque, NM., November 8-11, 2004. We are excited about this location and Albuquerque representatives will be in Franklin, TN, to promote their City. NOWRA's 2005 Conference location is Cleveland, Ohio. We will have these details completed shortly.

LEGISLATIVE ISSUES

We are working hard to obtain good details about regulatory and legislative issues affecting onsite systems in different states. As you will see, we have important updates in this issue. NOWRA is also planning a national legislative forum on Issues affecting the Onsite Industry, and need your input. Hopefully by November we will have completed and have available the "Legislative Handbook" for state groups to use in their respective programs.

MEMBERSHIP RECRUITMENT

We are in the process of developing a "how to" manual for state groups to use in recruiting new members. In addition, NOWRA Board members will be designated as "liaison" support to the different state groups to provide assistance. Your membership in NOWRA makes a difference—we *need* you and your colleagues.

That's about all for now. Looking forward to hearing from you soon, and seeing you at the Conference in Franklin. ♦



INTERNATIONAL CONFERENCE

ONSITE WASTEWATER TREATMENT & RECYCLING



12-14 FEBRUARY 2004

ORGANISED BY:

THE UNEP ENVIRONMENTAL TECHNOLOGY CENTRE
MURDOCH UNIVERSITY
PERTH, WESTERN AUSTRALIA

SPONSORED BY:

NATIONAL ONSITE WASTEWATER RECYCLING ASSOCIATION (NOWRA) - USA

REGISTRATION

Registration fee is A\$ 500/- (incl. GST). Student registration fee is A\$ 300/- (incl. GST). The fees may be paid by bank cheque/draft, payable to 'Murdoch University - Onsite Wastewater Conference'. The registration fee includes: conference attendance, conference papers, barbeque, lunches, morning & afternoon refreshments and conference dinner. The registration fee should be paid by 28 November 2003, after which a late fee of A\$ 50/- (incl. GST) applies.

Registrations & Abstracts should be sent to:
Ms. Katie Clark
Congress West
University
PO Box 1248, West Perth, WA, 6872, Australia

1734
4997
Email: conwest@congresswest.com.au

General Enquiries may be directed to:
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South Street, Murdoch, WA, 6150, Australia
Tel: +61 (0)8 9322 6906 Fax: +61 (0)8 9322
Tel: +61 (0)8 9360 2896 Fax: +61 (0)8 9310

Email: K.Mathew@murdoch.edu.au

KEY DATES & DEADLINES

Submission of Abstracts 31 July 2003
Notification to authors of acceptance 30 Aug 2003
Registration Due 28 Nov 2003
Submission of final manuscript 6 Dec 2003
Conference 12-14 Feb 2004

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MURDOCH
UNIVERSITY
PERTH, WESTERN AUSTRALIA

OBJECTIVES

NOWRA is a pre-eminent organization working to achieve sustainable development through effective performance of onsite wastewater systems in USA. The aim is to promote onsite wastewater treatment and recycling industry through education, training, communication and provide tools to support excellence in performance. NOSSIG is a similar organization working in Australia. Onsite NewZ is working in New Zealand with similar objectives. There are other local and National interest groups working to promote onsite systems. The conference aims to bring together all these initiatives to form an International link and if necessary to form an association to make formal collaboration.

PARTICIPATION

The conference will provide an opportunity to bring together scientists, engineers and professionals from government departments, private institutions, consultants, research, education, and training institutions. We expect 400 delegates from about 50 countries to attend the conference, however the facilities are available for a much higher number.

CONFERENCE TOPICS

- The conference topics will include:
 - Decentralised Wastewater Management
 - Soils and Land Application Systems
 - Alternate Types of Toilets
 - Management of Onsite Services
 - Training Programs
 - Design Consideration
 - Nutrient Reduction Systems
 - Standards and Regulations

EXHIBITION

In conjunction with the conference, an exhibition of the latest environmental technologies, equipment and services will be held at Murdoch University, Western Australia.

LANGUAGE

The official language of the conference is English. No translation service will be provided.

VENUE

The conference will be held at Murdoch University situated 20 kms west of Perth International Airport. International standard accommodation is available in Perth & Fremantle, which are within easy commuting distance of the University. All lunches, dinner & refreshments will be provided at the University campus.

TECHNICAL TOURS

Technical tours will be arranged to visit many types of onsite systems in Perth. The tour will include the places where such systems are manufactured. The cost of A\$100 includes luncheon.

CALL FOR PAPERS

Authors of both oral and poster papers are invited to submit an abstract of not more than 500 words no later than 30 June 2003. The Committee will review the abstracts & select papers for inclusion in the programme. All authors will be notified by 31 July 2003. Final acceptance will be conditional upon receipt of the final manuscript by the due date & one presenter of each oral & poster presentation registering as a paying delegate.

PUBLICATION

Abstracts will be reviewed & judged on the basis of relevance, originality & technical content and will be published in an internationally refereed publication.

ACCOMMODATION

Hotel accommodation is available within 10-15 kms from Murdoch University. Transport from selected hotels to the Conference Venue will be provided in the morning & back in the evening. List of hotels will be provided to the registered participants. Reservations can be made directly to the hotel. Please quote the name of the Conference on your reservation.

National Organising Committee

- Peter Beavers, Dept Of Natural Resources & Mines, Qld
- Leigh Davison, Centre For Conservation Technology, NSW
- Dharma Dharmappa, University Of Wollongong, NSW
- Ted Gardner, Dept Of Natural Resources & Mines, NSW
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- Ashantha Goonetilleke, QLD University Of Technology, Qld
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- Jonathan Parkinson, GHK International, USA
- Raymond Peat, Bio-Microbics, Inc, USA
- Christiane Roy, Option Environment Inc, Canada
- Tom Stephenson, Cranfield University, UK
- Jerry Stonebridge, Stonebridge Construction Co Inc, USA

NOWRA Model Performance Code Update

by Michael Corry, Committee Chair and Jean Caudill, Vice-Chair

Dedicated Committee Volunteers are “Making the Difference in Onsite”

Drafting a new model code is a complex task, needing a large group of onsite experts who are willing to participate and focus on the mission to accomplish the tasks. At this time, over twenty-five individuals regularly attend the primary code committee meetings. Over 50 individuals have participated in one or more of the eight committee meetings conducted throughout the various states. Meetings have been held in Wisconsin, Georgia, Virginia, Rhode Island, Washington State, Texas, Tennessee and Nevada. What is really important to also know is that the Model Code participants donate their personal time, and in many cases, either the individual or their organization provides funding for travel expenses.

The table at right identifies those persons who are appointed members of the Primary Code Committee and others who have participated in three or more committee meetings. Anyone attending these meetings is welcome to participate.

Similarly, there are several subcommittees working on specific code areas that are important to the development process. The synopsis following, explains the different areas of responsibility for the Primary Committee and subcommittees.

The **Primary Committee**, (chaired by Mike Corry, with Jean Caudill as Vice Chair) is responsible for the general direction of the code development process and for developing the Classification Matrices and the model code outline. The code language will be developed in a combined effort of the Primary Committee and the subcommittees.

Led by Fred Bowers, (New Jersey Department of Environmental Quality), the **Evaluation Committee** is responsible for developing the NOWRA mechanism for evaluating components to be listed in

NOWRA Code Primary Committee Frequent Attendees & Subcommittee Participants

Name	Organization	
Committees/Subcommittees		
Tibor Banathy Definition/Glossary	California Wastewater Training & Research Ctr.	Primary,
Daniel Beardsley	Infiltrator Systems, Inc.	Primary
Allison Blodig	Bio-Microbics, Inc.	Primary, Evaluation
Fred Bowers Evaluation, Soil	N.J. Bureau of Non-point Pollution Control	Primary,
Steve Branz Standards	Bord na Mona	Primary, Septic Tank,
Bennette Burks Evaluation, Septage,	Consolidated Treatment Systems, A.D.W.A.	Primary, Guidance
Matt Byers Guidance	Zoeller Equipment	Primary Septic Tank,
Jean Caudill Chair	Ohio Department of Health	Primary, Guidance, Vice
Ed Coriveau	Penn. Department of Environmental Quality	Guidance
Mike Corry	CORRY Consulting	Primary, Chair
Elizabeth Dietzmann Staff	Attorney	Primary, Committee
Lynita Docken	Wisconsin Safety & Buildings Division	Reuse
Ernest Earn	Georgia EPA, Georgia Onsite Association	Evaluation
Dean Frank Evaluation	National Precast Concrete Association	Primary, Septic Tank,
Tim Frank, NOWRA President		Tim Frank Septic
Systems	Septage	
Mark Gross Definitions/Glossary	University of Arkansas	Primary, Soil,
Linda Hanifin Bonner Committee Staff	NOWRA Executive Office, Grant Manager	Primary,
Mike Hines	Southeast Environmental Engineering	Primary, Guidance, RME
Mike Hoover	North Carolina State University	Soil
Anish Jantrania	Virginia Department of Health	Primary, Evaluation, RME
Craig Jowett	Waterloo Biofilter Inc	Tank, Evaluation
Roman Kaminski Definitions/Glossary, Secretary/Staff	Wisconsin Safety and Buildings Division	Primary, Committee
Robert E. Lee	Loudoun County, Virginia Dept. of Health	Primary, Reuse
Roger Lemasters	Tenn. Division of Water Pollution Control	Primary
Bruce Lesikar	Texas A&M University, Ag. Engr. Dept.	Soil
Wilder Lucas	Consultant, Georgia	Primary, Guidance
Shawn Luton	HANCOR Industries	Primary
Bob Mayer Standards	American Manufacturing	Primary, Reuse,
Randall Miles	University of Missouri	Soil, Definitions/Glossary
Del Mokma	Michigan State University	Soil, Biomat
Jack Myers	Blue Environmental	Primary
Valarie Nelson Guidance	Coalition for Alternate Wastewater Treatment	Primary,
Dick Otis Definitions/Glossary	Ayres Associates	Primary,
Bob Pickney	Pickney Brothers, Inc.	Primary, Septic Tank, Evaluation, Septage, Reuse,
Standards		

the Classification Matrices. The purpose is to develop a nationwide list of treatment components that produce effluent outcomes that meet the various standards that are contained in the Matrices. The key is to establish an evaluation methodology that integrates existing and future lab/field data into the evaluation process. The process needs to be valuable to the product manufacturers and sufficiently robust so that the regulatory industry will accept the listings. The objective is that a product need only be evaluated by one agency and the resultant performance listing in the NOWRA matrices will be accepted by regulatory agencies. The committee will work with existing evaluation and testing agencies during the listing process.

The **Guidance Committee**, (led by Jean Caudill, Ohio Department of Health and Committee Vice-Chair), is writing a guidance document to assist elected officials adopting the model code in the process of making decisions as to what policy options presented by the code on output performance standards and levels of Quality Assurance (QA) they will employ in their jurisdictions. The code is being developed in an “informed choice” format, where policy options are provided to those adopting an onsite code. This choice model code is different from many model codes that present only one answer to each policy question. The range of performance standards and QA mechanisms is intended to help ensure that regulatory staff and political leaders can select the risk reduction strategies most suitable to their local human, natural and political environments.

The **Soils Committee** (headed by Jerry Tyler, University of Wisconsin and Del Mokma, Michigan State University) is supported by a peer advisory group of national soil experts. The capability of the soil to treat wastewater to the standard required by state and local codes defines the level of pretreatment required before the wastewater enters the soil component. The soil committee is developing treatment credit tables for all soil conditions in the country, ranging from no credit to full credit for each of the following wastewater constituents: fecal coliform, nitrogen and phosphorus.

The work evolving from this committee is considering a major shift in the method of analyzing information collected by the site soil assessor. For pathogen reduction, the subcommittee is concentrating on the time the wastewater resides in the treatment zone and the access to oxygen. For nitrate reduction they are focusing on the presence of anaerobic zones and a carbon source. This means that some saturated zones will be considered desirable for nitrogen treatment. For phosphorus, the committee members are looking at soil properties that will bind the ions.

The Soils Committee has also created a subcommittee including Jerry Tyler, Del Mokma, Bob Siegrist, Colorado School of Mines, and Kevin White, Southern Alabama University. Their role is to determine the hydraulic conductivity effects of biomat formation, gravel, fines and their various combinations. The flow restrictions caused by these and other materials affect the amount of wastewater reaching the soil treatment component and the size of the drainfield needed to accept the flows from the structure.

A **Definitions/Glossary Subcommittee**, headed by Tybor Banathy, California Wastewater Training and Research Center, is developing an expanded list of terms to use as a resource for the code development effort. Most of the terms and definitions collected were developed through an effort organized by the Consortium of Institutes for Decentralized Wastewater Treatment. Additional terms and definitions are being provided by other state and model code development efforts.

The **Septic Tank Subcommittee**, headed by Bob Pickney, Pickney Brothers, is developing a NOWRA performance classification system and protocol for septic tanks relative to installed system water tightness. The interest in “truly water tight” tanks is strong on the primary code committee and with this group.

The **Recycle/Reuse Subcommittee**, headed by Bob Lee, Loudoun County, Virginia, is developing a standard for reuse. This is an area of growing interest, especially

in areas where there is a need to ration the availability of drinking quality water. A number of municipal treatment plants and cluster systems are now returning reclaimed wastewater for use in toilet flushing and landscape irrigation. Reuse sources for onsite systems include both stormwater and domestic wastewater.

The **“Don’t Flush” List Subcommittee**, headed by Ron Suchecki, Hoot Aerobic Systems, is developing a list of materials and substances that should not be flushed into a treatment system. This will be included as an information appendix in the code document.

The **Responsible Management Entity (RME) Subcommittee**, headed by Mike Hines, Southeast Environmental Engineering, is looking at the appropriate level of administrative and QA assurance regulations applied to organizations that own or operate groups of systems. The Subcommittee will concentrate first on EPA Management Level V organizations.

The **Adopted Standards and Protocols Subcommittee**, headed by Steve Branz, Bord na Móna Inc., is investigating existing standards and protocols for possible reference by the NOWRA Code.

A **System Sizing Subcommittee**, a joint project of Mike Corry, Dave Venhuizen and Larry Stevens, Stevens Consulting Services, is developing alternate code strategies for sizing systems.

The latest Model Performance Code Committee Meeting was September 4-5, 2003, in Annapolis, MD. Consult NOWRA’s website for additional details. The objective is to have a full draft of the code available to the NOWRA membership for their review and comment at the 2004 Annual Conference in Albuquerque, New Mexico. ♦

*Information on the Model Code development process can be obtained from Mike Corry at
nowracode@sbcbglobal.net;
Jean Caudill,
jcaudill@gw.odh.state.oh.us;
or call 608-257-1787.*

MEMBERSHIP UPDATE – NOWRA IS GROWING!

Colorado has had its charter meeting, Indiana and Iowa have made 2004 membership commitments, and organization of a New Mexico Association is underway.

Colorado

COLORADO PROFESSIONAL ONSITE WASTEWATER ASSOCIATION ORGANIZATIONAL MEETING

Over 41 people attended the June 13 Colorado Professional Onsite Wastewater Association meeting, at the Summit County Health Department, with the focus of preparing for the coming year’s work. The meeting started with the introduction of those who have been involved in getting CPOW organized. As the meeting progressed, discussions focused on the stated purpose of organizing the Colorado constituent group as part of the National Onsite Wastewater Recycling Association. Our name, *Colorado Professionals in Onsite Wastewater (CPOW)*, was selected by an email vote from five names circulated among those who had expressed interest in the spring of 2003. CPOW is being incorporated in Colorado as a not-for-profit corporation.

CPOW was privileged to have Raymond Peat, NOWRA’s current Vice President/ President Elect, attend the organizational meeting. Mr. Peat provided a summary of NOWRA activities and goals, answered questions, and provided insight into NOWRA’s ongoing operations. Also attending were regulators and engineers who are members of the Colorado Environmental Health Association, which includes other aspects of environmental health beyond ISDS. It is important that a specific organization be developed for the onsite industry.

A preliminary draft of the bylaws was produced and is now available to interested parties by contacting Ed Church. This draft document will be finalized by an attorney in the near future.

Results of the discussion on how CPOW should be organized, either as a state or regional group, concluded that it was best as a statewide organization. Neighboring states would be included if they show interest. Regional sections in Colorado may also be established as local areas and interest develop. It is the desire of CPOW to meet throughout the state so that we can truly be a statewide organization, including persons from all aspects of the onsite industry.

Membership discussions resulted in the identification of five membership categories, or levels, with proposed fees (these include membership in NOWRA*):

Individual	\$90
Regulator/Academic	\$60
Agency Organization for up to 3 people;	\$150
then \$50 for each additional member	
Sustaining Company for up to 3 people;	\$250
then \$60 for each additional member,	
includes advertising notices	
Students	\$35
*Would be \$140 if individual joined NOWRA without	

constituent group membership.

FOUNDING SUSTAINING MEMBERS

- SCG Enterprises, Inc.
- Valley Precast, Inc.
- Barbara Dallemand,
- CHURCH and Associates, Inc.

ORGANIZATIONAL STRUCTURE

The slate of officers proposed was presented and includes:

- President – Ed Church of CHURCH and Associates, Inc.
- Vice President/President-Elect – Jim Rada of Summit County Health
- Treasurer – Derrick Eggleston of Valley Precast.

An election will take place at the next meeting, (September 25) at the Colorado Environmental Health Association (CEHA) Annual Education Conference in Steamboat Spring, CO. More Conference details are located in another section. Three Standing Committees proposed include: 1) Audit, 2) Nominating, and 3) Membership. Roger Shafer of SCG Enterprises Inc. has volunteered to head the Membership Committee.

There has been close interaction between CPOW and CEHA. There will be a one-day ISDS session on September 25, sponsored by the National Environmental Health Association (NEHA), EPA and NOWRA. The CEHA website at www.ceha.org has more information. There is a great list of national onsite wastewater professionals who will be involved in the program. CEHA has designated a special reduced registration price of \$50.00 for the onsite program.

Working CPOW Committee groups include:

1. Contractors/Installers,
2. Evaluators/Designers/Engineers
3. Management Services/Operators
4. Regulators/Compliance Monitors
5. Researchers/Academics
6. Service Providers (pumpers)
7. Suppliers/Vendors
8. Education and Training
9. Government Relations
10. Technical Practice
11. Licensing and Ethics
12. Communications and Promotion
13. Very Interested Parties

Chairpersons of the above groups, representing professionals from throughout the state, are being sought. The “Very Interested Parties” group could be very large and include:

realtors, bankers, mortgage lenders, non-health department county officials, owners, developers, attorneys, builders, planners and others with an interest in OWS.

Since the June 13th meeting, a banking account and mailing address have been established. Our address is CPOW, P.O. BOX 196, Wheat Ridge, CO 80034.

Membership so far includes 5 Individuals, 1 Agency Member with 3 individuals and 8 Sustaining Company Members with 17 individuals for a total of 25 members.

CPOW hopes to communicate with its membership primarily through the internet. The debate is whether more money could be generated through advertising at the website or through print mailings. Your input would be helpful. Other topics include the potential of hiring an Executive Director in the future, as hiring someone at this time is not realistic; however, having someone to provide continuity in CPOW would be helpful. There are several similar, small industry organizations that have part-time Executive Directors, so CPOW may be able to employ someone for an appropriate segment of time.

Delaware

7TH ANNUAL DELAWARE ONSITE WASTEWATER RECYCLING ASSOCIATION CONFERENCE (DOWRA) November 24 & 25, 2003

“OnSite Professionals Guiding Delaware’s Future”

This conference is focusing on siting criteria, design, construction techniques, inspection and management of onsite wastewater treatment and disposal systems for community and individual systems. The purpose of this Conference is to identify important onsite wastewater related issues of current interest and examine them closely through presentations by experts and general discussions. Diverse topics such as the role of onsite systems in land use, wetlands treatment and disposal, and best management practices have been discussed. The need for further discussion about the role of onsite wastewater management in Delaware, combined with EPA’s move to decentralize wastewater treatment and disposal systems will need to be accurately and comprehensively understood by all.

LOCATION: Dover Downs Hotel and Conference Center, Dover, Delaware

Hotel group rate –\$125.00 per night
Reservations – 866-725-3733 – mention DOWRA

For additional information, contact David Schepens, Department of National Resources – 302-739-4761

Ohio

OHIO (OOWA) ONSITE WASTEWATER ASSOCIATION LEADERS PURSUE LEGISLATOR EDUCATION

When HB 231 was introduced on June 24th in the Ohio 125th General Assembly, its early introduction of this household sewage legislation provided opportunity for all interested parties

to review the bill during the legislature’s summer recess. During the past months, OOWA leaders have been aggressively supporting the introduction of legislation affecting household systems. Rick Novickis, President of the OOWA Board of Directors wrote letters to five key legislators to recognize the importance of this state initiative that could enhance regulatory support for a viable onsite wastewater industry in Ohio.

Its message to state legislators is that OOWA has expressed its support and willingness to provide additional information relating to onsite wastewater systems to assist them in addressing this topic. Background information packages containing OWRA Onsite Journals, OOWA News items and other materials were provided to all legislators. In addition, and as a unique technique, the OOWA Board voted to provide honorary OOWA/NOWRA memberships for the five legislators at a cost of only \$20 each, the NOWRA Constituent Group membership fee. OOWA has made these legislators “honorary” OOWA/NOWRA members. NOWRA welcomes the new members of Ohio’s House of Representatives—Tom Niehaus, Larry Householder (speaker), Thomas Collier and Senators Robert Gardner and Douglas White (Senate president.)

For questions concerning OOWA, contact Communications Chair, Jean Caudill, at 614-644-7181 or jcaudill@gw.odh.state.oh.us.

January 7 & 8, 2004—5th Annual OOWA/OLICA Convention & Trade Show in Akron, Ohio. For more information contact OOWA Program Chair, Tom Grigsby, at 614-644-8663 or tgrigsby@gw.odh.state.oh.us

Kansas

THE KANSAS SMALL FLOWS ASSOCIATION has scheduled its 2004 Annual Conference for February 12th & 13th at the Hyatt Regency in Wichita. We have seen the conference grow every year and we are looking forward to our new venue in Wichita.

Earlier this year the board met just outside Valley Falls, Kansas, for a full day retreat. It was a great meeting and long overdue. Monthly board meetings just don’t allow the time to discuss philosophies and direction.

We are very happy to announce that, due to the hard work of Charlene Weiss—a past board member, who is with the Miami County Health Department—we will be launching our web page by the end of August. Please come visit us at www.ksfa.org.

The KSFA-sponsored “Soils Workshops” have been a huge success throughout the state. They were all sold out and not only generated some income for the association, but also provided a place for interested people to take a 2-day, hands-on course on soils.

We look forward to seeing everyone at the NOWRA Annual Conference this fall in Franklin, Tennessee.

Texas

TOWA CALENDAR OF EVENTS

TOWA Fall Conference—Sept. 25-28, 2003

(CEU hours for Installers, DRs, RS, Class D & TREC)

LOCATION: Omni Westside Hotel, Houston, Texas—Near Bass Pro Shop & Katy Mills Outlet Malls

Courses offered:

- NEW Maintenance Provider Certification, Parts 1 & 2
- NAWT Onsite Inspector Certification/Inspector Renewal (8 hrs or 16 hrs of Multi-topic onsite courses)

Exhibit Hall and FREE lunch!

Also, Manufacturer Specific Certification coordinated the day prior to the conference.

Additional details contact TOWA state office - 512-494-1125 or visit our web site www.txowa.org.

TOWA West Texas Chapter Fishing & Continuing Education—October 3-5, 2003

Overnite Fishing trip in the Texas Gulf—Fish & Learn! - 8 hours
Contact Ray Stubblefield at 915-658-8792 for details.

Trip is almost full!

Washington

WASHINGTON ONSITE SEWAGE ASSOCIATION (WOSSA) WORKSHOP—September 24, 2003

University of Washington, Seattle, WA

This premier onsite wastewater session features

- Up-to-date information on advanced treatment systems
- Innovative technology presentations
- New equipment and technology exhibit
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- Session proceedings
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Attendee Benefits

During this program participants hear national experts discuss the latest information on small-scale systems and interact with professionals from numerous states. Attendees will gain knowledge about:

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- Performance issues that affect human health and the environment
- Methods to develop practical and affordable water quality standards
- New concepts in small-scale decentralized sewer and wastewater treatment systems

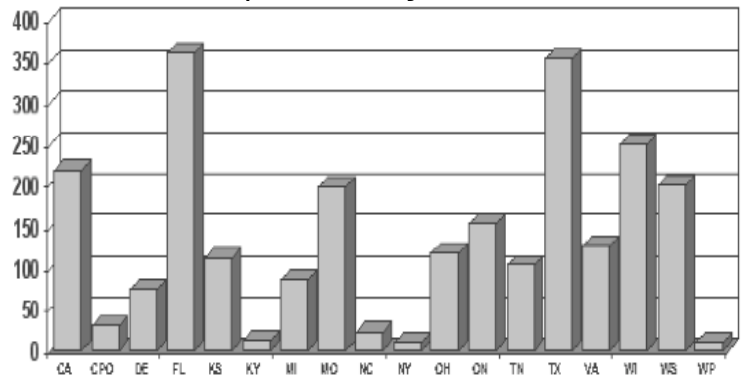
Keynote Address

Dr. Robert Siegrist, Colorado School of Mines Professor and Director of the Environmental Science and Engineering Division. For more than two decades, Dr. Siegrist has contributed to advancing the science and engineering of onsite wastewater systems and is widely considered a leading expert.

Additional Information:

Contact Christy Pack via email (croop@u.washington.edu) or

Membership Status by State/Province



Non-Member State Status

STATE	Indiana	JOINING	Montana	JOINED	a
Alabama			Nebraska		Oregon
Alaska	STATUS	STATE	Nevada		Rhode Is.
Arizona	INTEREST	Iowa	New	JOINING	S.
Arkansa		Louisian	Hamp.		Carolina
s	INTEREST	a	New		S.
Conn.		Maine	Jersey		Dakota
Georgia		Maryland	STATUS	STATE	Utah
Hawaii		Mass.	JOINING	New	Vermont
Kentuck		Minnesot	INTEREST	Mexico	W.
y	REJOINING	a		N.	Virginia
Idaho		Mississip	FORMING	Dakota	Wyoming
Illinois		pi		Oklahom	

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MARYLAND 2003 STATE-COUNTY WATER SYMPOSIUM

The Maryland Department of the Environment is sponsoring the 12th Annual State-County Ground Water Symposium on September 25, 2003. This event brings together professionals from across Maryland to exchange information and promote protection of Maryland's ground water. Presentations address a wide range of topics

- ◆ Successful groundwater protection efforts
- ◆ Innovate technical solutions
- ◆ GIS management
- ◆ Monitoring
- ◆ Protection through management of onsite systems
- ◆ Innovative or alternative onsite systems
- ◆ Performance of onsite systems
- ◆ Source water assessment or protection
- ◆ MTBE/TBA
- ◆ Karst Hydrology
- ◆ Naturally occurring contaminants
- ◆ Impacts on Surface Water

LOCATION: Best Western Hotel and Conference Center, 5625 O'Donnell Street, Baltimore, MD 21224

Contact: Norman Lazarus, MD Dept. of the Environment – Water Supply Program – 1800 Washington Blvd. – Baltimore, MD. Email: nlazarus@mde.state.md.us

COLORADO ENVIRONMENTAL HEALTH ASSOCIATION – CPOW JOINT MEETING

CEHA is hosting an Onsite Wastewater Track at their September conference in Steamboat Springs and is providing the opportunity for CPOW to meet jointly with them. Following the OWS sessions at 3:00 PM, September 25, CPOW will have its second meeting.

The September 25 Onsite Wastewater Track will feature nationally known experts brought in by USEPA, NOWRA and NEHA. The two themes are management and soils—two factors are that absolutely critical for long-term, effective performance of onsite wastewater systems. Check the program listing attached.

Don't miss a chance to hear Dr. Jerry Tyler from the University of Wisconsin talk about soils! Dr. Rein Laak, who is one of the earliest researchers to begin studying onsite wastewater systems, will be speaking on the 26th.

For CPOW members, the registration is \$50 for September 25 and the morning of the 26th.

The Program and Registration form are available on the CEHA website: <http://www.cehawe.com>

The deadline for early registration is August 20! To get the \$50.00 registration fee you must join CPOW.

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...On the Legislative

FLORIDA LEGISLATIVE SESSION— CONTROVERSIAL AT BEST

Many have called the Florida 2003 legislative session the most unproductive and disastrous session in its history. Of the 2,553 bills filed between both the House and Senate, only 417 were passed by both houses. The reason—the debate over the \$52 billion-plus budget held up almost everything else the Legislature was expected to do. These areas included reforms in medical malpractice, workers' compensation, auto insurance reform, and the implementation of voter constitutional mandates like class-size reduction, a smoking ban and a state takeover of the court system, all of which failed to pass.

Issues Affecting Florida Onsite Businesses & Industry

The language pertaining to the removal of the sunset on the \$5.00 charge for every new septic tank permit to fund the training facility and the registration of portable restroom contractors was located in HB537 by Representative Marty Bowen and SB476 by Senator Lee Constantine. HB537 was passed out of the House in a vote of 109 to 1. Representative Connie Mack was the only vote against the bill; however, HB537 died in messages to the Senate.

With two weeks left in session, SB476 was being held by the Senate Health & Human Services Appropriations Committee because of its estimated \$30,000 fiscal impact to the Department of Health in its first year of implementation. This situation was quickly resolved when in cooperation with DOH, the Department sent a letter to the Committee acknowledging the initial year impact and reassuring the Committee the fiscal gains would cover the costs by the second year of enacting the law. SB476 was placed on the calendar and ultimately died with the House companion in messages.

Amendments that included the \$5 fee and the portable restroom language were filed to SB2738 and SB2750, both identified as the vehicles for the Department

of Health's package. Both bills died on calendar and no Department of Health bill passed this session.

Bill sponsors, Rep. Bowen and Sen. Constantine, have informed us that they will be filing the same bill for next session. Additionally, if in the following special sessions, the call of the Governor is expanded to include Department packages or a health care bill, the language will be placed into such bills. Both Chairmen of the Senate and House Appropriations Committee have agreed to place the \$5 fee extension in the implementing bill. The special session for the Appropriations Bill will begin May 12 through May 27.

No Florida Building Code bill, growth management bill, or department package was passed this session. The only construction related bills that passed this session were:

- HB1277 Construction Contracts by Representative Kottkamp. The bill specifies that contracts entered into on or after October 1, 1990, by an unlicensed construction or electric contractor are unenforceable under law or equity. As such, if the contract is rendered unenforceable, the bill provides that a claim against a lien or bond would not exist for the unlicensed contractor for any labor, service, or materials that may have been provided under contract.
- HB1719 Construction Lien Law by Representative Dean. This bill makes several changes to the Construction Lien Law, the purpose of which is to provide a special legal remedy to persons who supply labor, services, or materials during the construction of a home or building in the event they are not paid, as well as to provide procedures for property owners to avoid double payment for such labor, services, or materials. The bill allows a subcontractor to look to the property owner for payment, even if the owner has paid the contractor in full. It shortens the time within which a

claim of lien must be recorded from 90 days to 45 days.

- SB1286 Construction Industry by Senator Bennett. The bill creates a process for homeowners, subsequent purchasers of a dwelling, tenants, association, and construction professionals the opportunity to settle legal claims related to construction defects arising out of the construction of a dwelling before a lawsuit is filed.

The Florida Onsite Wastewater Association legislative interests are represented by lobbyists Fausto Gomez and Manny Reyes, who provided information for this article. They will continue to work diligently through the oncoming special sessions in order to assure that the interests of the Florida onsite industry continue to be well represented.

TEXAS ONSITE WASTEWATER ASSOCIATION REPORTS ON LEGISLATIVE SESSION RESULTS

The 78th Session of the Texas Legislature will go down in history for many reasons. Republicans controlled both chambers of the Texas Legislature for the first time in 130 years and held all statewide offices. Partisanship shut down the Texas House when 51 "Killer Democrats" fled to Ardmore, Oklahoma, rather than vote on a last-minute Republican-crafted congressional redistricting plan.

The state faced one of the largest budget deficits ever—\$9.9 billion. Complicating matters, most of the 44 new legislators got elected on platforms of "no new taxes," although during the elections, the deficit was projected to be about \$5 billion. By January, the projection had almost doubled, but the leadership urged lawmakers simply "to tighten the state's belt."

With a storm brewing over the budget, lawmakers faced a growing population, declining sales and franchise tax revenues, and increasing demands on all government services, ranging from prisons and

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public education to health and social services. Compounding the problems was a large turnover in House committee chairmanships, as well as leadership roles in both chambers.

Despite all these adverse factors, the House managed to pass 825 of the 3,636 bills filed, and the Senate passed 557 of its 1,956 filed bills. In spite of the stormy legislative battles, TOWA emerged from the Session with a successful outcome that exceeded our expectations. The following is an overview of what happened during the 78th Session which adjourned on June 2, 2003.

(1) Interim Legislative Study – At TOWA’s request, Representative Kevin Bailey (D-Houston) introduced H.B. 1646 which would have required that TCEQ review its current rules to determine whether or not revisions or additional regulations are necessary to eliminate or prevent environmental and health hazards related to on-site sewage disposal systems. Recommendations would then be reported to the Governor, Lt. Governor, and Speaker. However, Representative Dennis Bonnen (R-Angleton), Chairman of the House Environmental Regulation Committee which considered the bill, preferred that the study mandated by H.B. 1646 be conducted by the House Environmental Regulation Committee as an Interim Legislative Study as opposed to an “in house” review by TCEQ. Accordingly, the House Environmental Regulation Committee will conduct the study envisioned by H.B. 1646 and its recommendations will be reported back to the 2005 Session of the Texas Legislature for its consideration.

(2) Licensing of Electricians – H.B. 1487 implements a statewide licensure requirement for electricians. Specifically, the bill provides that a person may not perform electrical work unless that person holds an appropriate license issued by the Texas Department of Licensing and Regulation. “Electrical work” is defined as any labor or material used in installing, maintaining, or extending an electrical wiring system and the appurtenances,

apparatus, or equipment used in connection with the use of electrical energy in, on, outside, or attached to a building, residence, structure, property, or premises. At TOWA’s request, Senator Ken Armbrister (D-Victoria) amended H.B. 1487 so as to provide that the Act does not apply to the location, design, construction, extension, maintenance, and installation of onsite sewage disposal systems in accordance with Chapter 366, Health and Safety Code.

(3) Regulation of Land Development by Counties – Numerous bills were introduced this Session which, if enacted, would have given counties the authority to regulate land development, including the location, design, construction, and installation of OSSFs. Although none of the bills passed, TOWA was successful in amending the only bill that passed the Senate so as to provide that a county adopting a regulation relating to the location, design, construction, installation, size, or extension of an onsite sewage disposal system: (1) must be an authorized agent as defined by Section 366.002, Health and Safety Code; and (2) must adopt regulations in accordance with Chapter 366, Health and Safety Code. The House Land & Resource Management Committee will study the county land development regulation issue during the interim and report its recommendations back to the 79th Legislature which will convene in January, 2005.

(4) Graywater and Water Softeners – The 78th Legislature also enacted H.B. 2661 by Representative Robert Puente (D-San Antonio) relating to the use of graywater and S.B. 1633 by Senator Jeff Wentworth (R-San Antonio) relating to the installation and use of a water softener or reverse osmosis system by an owner of an onsite sewage disposal system. Although TOWA opposed both bills as introduced, we were successful in our efforts to persuade the sponsors and the proponents of the bills to accept amendments which allowed us to withdraw our opposition. For example, TCEQ must adopt and implement minimum standards for the use of graywater and the use of

water softeners and reverse osmosis systems in a residence or other property served by an OSSF. Additionally, the provisions of S.B. 1633 do not apply to an aerobic, nonstandard, or proprietary onsite sewage treatment system unless the water softener drain line to the system bypasses the treatment system and flows into the pump tank or directly into the discharge method. The text of H.B. 2661 and S.B. 1633 is available at <http://www.capitol.state.tx.us>.

On behalf of the TOWA Board of Directors and Legislative Committee, we thank all of you for the support which you provided during the Session. We could not have achieved this successful outcome without your help.

If you have questions or require additional information regarding the legislation discussed above or other bills enacted during the 78th Session, contact TOWA Legal and Legislative Counsel Mark J. Hanna, 900 Congress Avenue, Suite 250, Austin, Texas 78701; telephone: (512) 477-6200; facsimile: (512) 477-1188; email: mhanna@hannaleonard.com.

VIRGINIA FARMERS WIN LAW SUIT AGAINST APPOMATTOX COUNTY OFFICIALS ON USE OF BIOSOLIDS

On July 24, 2003, the 4th Circuit United States Court of Appeals granted area farmers the right to apply biosolids to their land. This action by the Court resolved a lengthy, two-year court battle in which eleven farmers from Appomattox County, Virginia, filed suit (June 28, 2002) against the Appomattox County Board of Supervisors and its Administrators challenging two County ordinances passed that prohibit the beneficial use of Biosolids on land. This action was the result of a lengthy negotiation process in 2001 by landowners and residents to gain VDH permits to use their farmland to apply biosolids and beneficially restore the soil.

As part of the State permitting process, the Virginia Department of Health conducted a number of public hearings regarding this intended use. During these hearings, area residents opposed the land application of biosolids citing fears of potential adverse health affects. Following the hearings, the Appomattox County Board of Supervisors adopted two ordinances that restricted the use of farmland for this purpose.

In its finding, the U.S. Circuit Court of Appeals cited its agreement with the argument that farmers “will suffer immediate, significant and acute irreparable harms” if this use is denied. Their statement further determined that the County’s prospective fears (e.g., the use will incur offensive odors and potential health issues to area residents) are not as certain or as identifiable the economic hardships that the farmers would face if they are not permitted to use their land for this purpose.

The court’s action affirms the long-standing position of the U.S. Environmental Protection Agency and regulations passed throughout several states permitting the use of biosolids, based on scientific studies showing that health issues do not materialize. It also enforces the position that because the Virginia Department of Health and the U.S. EPA currently regulate the land application of biosolids, and will continue to do so, that the public’s interests in these issues is well represented and protected.

MICHIGAN (MOWRA) ACTS TO PROTECT ONSITE INDUSTRY INTERESTS

Represented by Paul M. Lubienski, a Dearborn, Michigan, attorney, the Michigan Onsite Wastewater Recycling Association (MOWRA) is pursuing an aggressive education campaign towards state and local legislators and regulators. This action is the result of a three-year

project that is being litigated over a state administrative rule, and learning how unknowledgeable policy officials are about onsite systems and the industry. This campaign could well form a “model” program for future state group pursuits.

In Michigan, the State Department of Environmental Quality (MDEQ) has jurisdiction over large sewage treatment systems. However, Michigan is the only state in the nation that does not have a statewide sanitary code. Because of this, each county makes its own rules and ordinances regarding sanitary septic issues. MOWRA is now preparing to work towards a “statewide” sanitary code to address this matter.

At the same time, another issue involving litigation over an Administrative Rule (Rule) is occurring. In this case, a developer’s proposal to install an onsite cluster system is being road-blocked because the current “RULE” does not require MDEQ to even review an

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...On the Legislative

application for an onsite system until the property owner goes before the local government and obtains a resolution for this use. The conflict occurs because local governments, usually a township, must accept the "liability" for the "operation and maintenance" of the proposed project, and frequently refuse to grant the resolution of the applicant or developer.

However, the exception to this conflict did occur, and the township granted the developer's resolution, and approved the site plan, with the contingency that the MDEQ approves the cluster project. However, the MDEQ has refused to review and permit the project. As a result, MOWRA joined the developer's lawsuit against the administrative rule and won the case. While the Michigan Trial Judge ruled in favor of the developer and MOWRA, the State appealed the ruling. This legal battle now goes to the next level—to the Michigan Court of Appeals—but not without another level of activity occurring in parallel:

EDUCATING PUBLIC OFFICIALS
(Court of Appeals Judges, local and state policy officials) about the advantages of onsite and cluster systems!

The results of this 2-1/2 year experience have demonstrated to MOWRA leaders that most decision makers do not desire to discuss scientific facts or engineering principles behind onsite systems, because they do recognize that these systems are an effective solution to providing wastewater treatment. At the same time, these policy officials are also very aware of the land use issues and are using the rules affecting the use of onsite systems as a method to control use and development decisions. MOWRA's government liaison, Paul Lubienski, sums up the matter—"one of our biggest struggles is to separate the facts of onsite versus the politics of

land use issues." We suspect MOWRA is not the only state facing these issues about the value and use of onsite systems.

OHIO ONSITE WASTEWATER ASSOCIATION – LEGISLATIVE UPDATE

The long awaited introduction of Household Sewage legislation finally occurred on June 24, 2003, just prior to the legislators' scheduled summer recess. Several new additions to the language in the proposed bill are sure to make for interesting summertime discussions. HB 231 revises the definition of a "household sewage treatment system" to include all treatment systems receiving up to 2,500 gallons of sewage per day. This is a rather substantial change from the current definition which includes only one-, two- and three-family dwellings. HB 231 also requires that new comprehensive sewage treatment rules be adopted within a year of the effective date of the legislation. These rules would prescribe standards for "siting, design, installation, operation, monitoring, maintenance and abandonment of household sewage treatment systems." The bill also creates a technical advisory committee with membership representing a wide diversity of wastewater professions. This committee would work closely with the Ohio Department of Health and would review and approve proposed sewage system components and designs. Finally, the legislation would require that detailed information on the sewage system be provided to the purchaser of a property when it is sold.

This proposed household sewage legislation is directly linked to the update of Ohio's Household Sewage Treatment Rules, which are nearly 30 years old.

These proposed rules would include language requiring individual homeowners who utilize off-lot discharging sewage systems to seek coverage under the Ohio EPA's General NPDES Permit for Household Sewage Treatment Systems, which is currently in draft form.

Along with all of these proposed legislative and rule changes, the USEPA's Phase II Stormwater Program will also affect hundreds of communities in the State of Ohio. Household sewage system discharges not covered under any form of NPDES Permit, along with other non-stormwater discharges, have been deemed as "illicit" and will have to be eliminated under a community's stormwater plan. To say that the household sewage program in the State of Ohio is on the verge of dramatic change would be an understatement!

SEPTAGE MANAGEMENT CHALLENGES IN NEW HAMPSHIRE

The following press release was issued by the New Hampshire Septage Haulers Association, with assistance from NEBRA, on July 25, 2003. There is a septage disposal crisis in New Hampshire. New home construction continues at a rapid pace, creating more septage. And the closure of several older septage lagoons means fewer places for septage haulers to discharge the septage they pump from home septic tanks. The net result is higher costs to homeowners. This, in turn, causes some homeowners to put off having their septic tanks pumped, which can lead to premature leachfield failure and possible contamination of groundwater.



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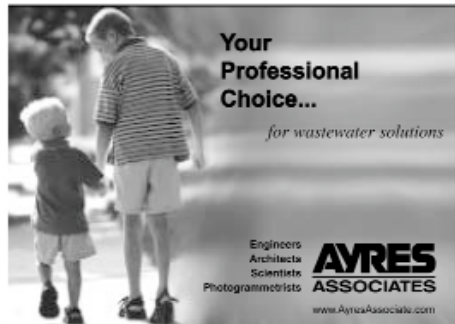
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Michael Nolin, the new Department of Environmental Services (DES) Commissioner, met with the state's Septage Task Force, including leaders of the New Hampshire Association of Septage Haulers (NHASH). Mr. Nolin, already aware of the problem, heard more about the lack of capacity, of truckloads of septage taking more than three hours to reach out-of-state disposal sites—not a sustainable practice. If out-of-state options became unavailable—a real possibility as populations grow and use up existing wastewater treatment facility capacity —New Hampshire could be awash in more than 18 million gallons of septage annually, with no place to go.

The DES Septage Task Force has worked for four years to address the developing septage disposal crisis. NHASH officials were encouraged to hear Commissioner Nolin state that “as Commissioner, the septage crisis is my #1 priority.” Recognizing the potential impacts of the crisis on groundwater quality, he committed to finding cost-effective solutions that will ensure the state has the capacity to deal with the necessary pumping of septic tanks.

In 2002, state legislation, supported by the Septage Task Force, expanded the use of wastewater treatment facility grants to include up to 50% funding of new or expanded septage disposal capacity. Today, Task Force members are concerned that this state aid grant money could be in jeopardy if lawmakers accept the current administration's proposed cut of \$5 million dollars from the DES budget, introduced in a legislative committee session earlier this week. The Septage Task Force was also instrumental in the passage of legislation that created the position of Septage Coordinator within DES to educate town officials about their septage disposal responsibilities and to work with them in creating or expanding septage disposal capacity.

Septage is semi-solid liquid that accumulates in the bottom of home septic tanks. In New Hampshire, more than 65% of homes rely on septic systems. To avoid problems and protect groundwater quality, the DES recommends that homeowners have septage pumped from their septic tanks once every three to five years. According to DES, 58% of the septage hauled from NH homes last year ended up at in-state wastewater treatment facilities or lagoons. What DES is concerned about is the fact that 23% is disposed of out of state.

The Septage Task Force agrees with the New Hampshire Association of Septage Haulers that keeping septic tank pumping costs affordable is critical to ensuring that homeowners continue to maintain their septic systems in a responsible manner. “In order for the Septage Haulers to provide affordable tank pumping and a quick response, we need access to disposal sites that are local and have adequate capacity,” said Darlene Johnson, President of NHASH. “We welcome the encouragement and commitment we received at this meeting from Commissioner Nolin and staff of DES.”

For more information contact: Darlene Johnson, President, New Hampshire Association of Septage Haulers at 603-225-9057 (Fax: 603-783-9081) Email: bestseptic@aol.com

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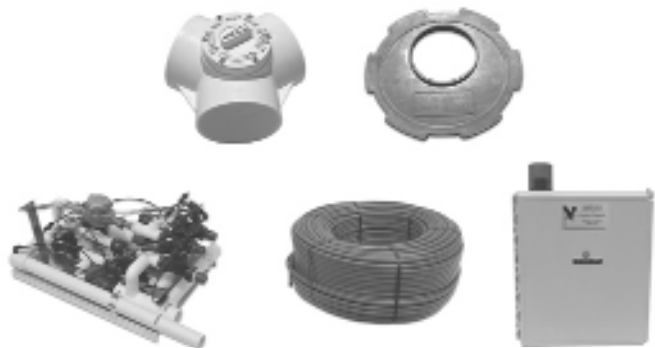
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Onsite Management

..... at the Local Level

by Bob Lee

Just a few short years ago, while working for the Environmental Protection Agency (EPA), I was developing a response to Congress on the topic of onsite wastewater systems. It was through this process that we at EPA heard from so many of you that “onsite systems will work fine if they are managed.” And, that is the message that EPA told Congress. ***Well managed onsite systems provide a long-term, cost-effective means of treating wastewater in the United States.***

Since then, EPA has developed Voluntary Management Guidelines and states are starting to adopt them. But adopting the Guidelines at any level of government is only a small step in bringing management to local systems. This is the first of several articles I will provide to share with you insight into the process being experienced by managers at the local level.

The Scene

Loudoun County, Virginia, is located from 30 to 60 miles northwest of Washington, D.C., bounded by the Potomac River to the north, the Appalachian Mountains to the west, Fairfax County to the east, and the rambling farms that make up most of the Virginia countryside to the south. The eastern portion of the County has melded to Washington suburbia with Dulles International Airport as an anchor to secure it. A year or so ago Loudoun County was the second fastest growing county in the United States. It is estimated that there are 12,500 to 14,000 onsite systems currently in the County. Estimated, because we are not sure of the exact number, and are being entered into a geographic information system (GIS) database for a more accurate total later this year.

Wastewater service for the suburban eastern portion of the County is provided by a collection system owned and operated by the Loudoun County Sanitation Authority (LCSA). A contract with the Blue Plains Wastewater Treatment facility in Washington, D.C., provides treatment of the wastewater. A new facility is being designed and will soon be constructed in the eastern portion of the county to treat a portion of the increased load. Four of the towns within the County have their own wastewater collection and treatment systems. In addition, there are several other communal or small package plant systems.

Many of the Loudoun County citizens were concerned that it would be engulfed by development and elected a Board of Supervisors that would address growth. Contrary to using onsite wastewater treatment as a means of restricting growth, as has been done in so many other places in the country, they enacted a zoning ordinance to address the issue. The Ordinance is huge—nearly 1000 pages. It would take more than this article to summarize it alone. However, it endorses the use of alternative onsite and decentralized systems so as not to render land development impossible. It recognizes the concept of clustering while leaving open space. At the same time they were intuitive enough to recognize the need for management of these systems or the result from failures would be central sewers across the County. The Loudoun County Health Department (LCHD) was tasked with revising the onsite ordinance to address both alternative systems and management.

To initiate the process, the LCHD held five public meetings in the County to get

practitioner and citizen opinions on what the management of these systems would require. Some of the things they identified as important were inspection of systems upon transfer of property, that there should be contracts required for alternative systems, and most importantly, that all systems should be managed. A smaller group of individuals representing realtors, citizens, designers, installers, service providers, and soil evaluators was brought together to follow the process and assure they could “buy in” to the changes.

Secondly, they advertised for an engineer with an onsite, wastewater, and biosolids background to manage the development of the program. This may be contracted for in other situations, but they had a need for a professional engineer for several reasons, this being only one. I joined the LCHD last November to take on the responsibility of developing the County program. Now the rubber has met the road and all those concepts that were enumerated in guidance and the models that were suggested have to be placed in an ordinance endorsed by those who will be regulated. Oh, but first there are those who share in the management of County government. We needed to get them on board before we were too far out on a limb to find out it was going to be impacted by some other entity. So, in addition to the stakeholder group, we determined that an internal group of staff representing the various affected departments within the County should be formed to oversee the writing of the ordinance and especially those areas where interface is necessary. The groups we have involved to date, outside the Health Department, include, planning, zoning (building and development), finance,

county attorney, information systems, and the LCSA.

Based on the stakeholder input, the EPA Guidelines, and LCHD staff input, we started to modify the current ordinance to address onsite and communal wastewater treatment system management. Virginia, through the local Health Department, currently issues a permit to construct a system and then issues an operation permit upon approval of the constructed system. The operation permit is good for the lifetime of the facility regardless of ownership. The current ordinance was titled "Individual Sewage Disposal Systems." So we had to start with changes at the very top to change the concept from a waste stream end point to a treatment recycle function of the water cycle—"Onsite Wastewater Treatment and Recycling Systems." In Virginia, the local ordinance only addresses what goes beyond state regulation. Therefore, on one hand it was easy to input information on requirements for management, because the state has not regulated it yet. On the other hand, the current ordinance doesn't address what is in state regulation, and it is assumed one knows what that is. There is no single place where the complete requirements can be found. The result is that the County ordinance is fragmented with bits and pieces in the same regulation and no real organization. For example, soil analysis and construction requirements may be found in the same section only because they were part of the requirements for a certain process. We started to change this and model the ordinance after the NOWRA model code outline, modified slightly. It would have provided for performance design as well as prescriptive design. Although this seemed great to the internal County staff workgroup, it was not accepted by the LCHD staff, who believed it would be too drastic of a change for both them and the practitioners in the field. So we agreed to take one step at a time and focus our changes to the existing ordinance to address quality assurance. We determined that there were four areas that impacted quality assurance. First, that operation and maintenance of the systems must be required through permits. Second, that all practitioners would be licensed. Third, that inspection of systems was essential to assuring

quality. And fourth, that compliance and enforcement was critical for any of the above to be success. You may notice that prescriptive requirements of equipment, soils, and construction were not the things that were determined critical to quality assurance per se. For the most part, these areas have been regulated sufficiently and it is the people (practitioners and owners), and how they operate—do business—that is critical. If each person assures quality, we will have success.

As we debated the merits of required maintenance, it was clear that there would be very different needs from system to system and that it would be nearly impossible to set that all in an ordinance. However, all agreed that an operation permit with an expiration date requiring renewal or expiration due to change in ownership was needed. In lieu of a hard and fast set of requirements we placed a table in the ordinance with ranges of requirements for various things like expiration date, maintenance agreement, type of dispersal, maintenance manual, etc. Each permit will reflect the uniqueness of the circumstances surrounding that particular system, with equality in areas where they are the same. We will rely on the manufacturers and designers for the needed maintenance to be identified in the maintenance manual and outside of certain environmental risk factors such as karst soils, reflect those requirements in the permit.

Owners must operate the facilities under the conditions upon which they were designed. Where they do a good job the operation permit may be for an extended period of time. Where they do not operate their system properly, the permit term may be shortened to only run from year to year and more frequent maintenance required.

Licensing was the second quality requirement that was placed into the ordinance. Although there were current licensing requirements for percolation tester, installer and pumper; and although Virginia licenses engineers and Authorized Onsite Soil Evaluators (AOSE), it was determined to do the same in the County and to require a certain number of continuing education credits to continue to be licensed. There was discussion of having various levels within the practitioner license group. We have utilized that with the service providers where there are four

classes of license based on one's knowledge of systems. We also require a Responsible Management Entity to be licensed. However, we have not addressed private verses public, and what difference that may make.

Inspection is a term often used rather loosely. I have heard it referred to when a service call was all that was being done. We addressed this issue by using the term "compliance inspection." Compliance inspections are to be done to ensure that systems are in compliance with the requirements of their design, are not polluting the environment, and are being operated properly. They are typically done upon completion of construction, system ownership change, and report of failure. We also identified a "failure evaluation" which would be accomplished once it was determined that there was a failure from a compliance inspection. Either a licensed "certified inspector" or an LCHD employee must do these inspections. It is also the intent of the LCHD that its staff will all have passed the Certified Inspector program offered by NSF International. Inspection will also be conducted periodically on a random sample of systems as part of the compliance effort.

Compliance with the permit will be accomplished through the oversight of the LCHD. In order to address compliance we had to address failure. So far, we have two tiers of failure depending on the severity and potential for either environmental or public health problems. A system that is not operating as designed is considered a failure. I am wrestling with how we will address routine replacement from failure. Certainly, the anticipation of replacement identified in the maintenance manual and the service provider's speed and accomplishing it will play a role. We plan to use a data system that will allow us to track the permits, the maintenance accomplished, related problems, and flag when maintenance has not been accomplished. When used with the inspections, particularly on change of ownership, we expect to see many more repairs take place before system failure ever occurs. We anticipate the use of fines for violation of the

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permit for enforcement, but that part of the program and ordinance is not complete.

Another consideration we needed to provide was options to the proposed operation permit for all systems—an adapted EPA Model 3 program. There was much concern over alternative or pre-treatment systems and their need for greater operation and maintenance. Although the stakeholders agreed with everyone being under an operation permit, if for some reason the citizens and subsequently the Board of Supervisors determined that permitting the entire county was too big a step, we needed to have something to back off to without losing everything. We looked at various alternatives and found that they fit portions of the EPA Model Programs in general. We determined that one alternative to put forth is a combined Model 3 program for non-conventional systems and a Model 1 program for conventional systems. Other alternatives include a do nothing alternative; a public works program providing complete control within government—Model 4; a Model 3 for all except large land owners who would have a Model 1 program; and a program with Model 2 for non-conventional systems and Model 1 for all conventional systems.

It was the Board of Supervisors desire that County Programs such as this one pay for themselves. Therefore, another task was to develop costs for the program, which could be translated into charges for permitting, licensing, and inspection. Cost modeling is a topic in its own, so I will not go into all the details. However, it requires a determination of the type of job classification that will be needed to do the work, such as technicians, specialists, clerical, professional, etc.; how many tasks a person can do in a period of time, such as permits per day or hours per enforcement case; what tasks make up a job—inspection and testing, written correspondence, and data entry, for example; how many jobs need to be done in a year—e.g., licenses issued per year or in relationship to the total number of systems per year such as 1 percent of the total will require enforcement; costs for major equipment such as vehicles and computers; and which operational costs will apply to this program, such as telephone, vehicle

maintenance, office supplies, etc. All that information gets put into a model by the budget office to come up with the number of people needed and the rates that need to be charged for the services.

How do you issue 13,000 permits and continue to maintain the current new permit workload without a backlog? In what time frame should all the permits be issued? These are two of the first implementation issues that we had to address specifically in the context of the model. We determined a phased approach to implementation. Home inspections would not occur in the first year so that the real estate stakeholders could develop the necessary processes to put it in practice. In addition, it will provide additional time to assure there are trained and certified inspectors. Operation permits for new construction or replacement would go into effect within several months of enactment. Operation permits for alternative systems would be accomplished in the first year. Conventional systems would be done over a period of time first, by sale of property after the first year; second, by volunteer of owner; or third, at the end of a ten-year period.

This eases the burden on the program to spread it out over a ten-year period, while assuring that the critical systems are addressed.

Assuming the proposed program is enacted, (elections are this November and the Board did not want to make this a political football during the election) what other things are needed to implement the program? Some infrastructure needed to operate this program is bigger than what a County would generally offer, especially with regard to licensing and its associated training. How can you ensure that there are trained inspectors

to go to work inspecting systems upon sales of homes? How can you write operation permits for existing facilities without maintenance manuals to guide you? Where is the data system to track everything? Can we get everyone trained in time? What are the requirements for licensing practitioners? With this State, like most others, cutting back on services and staff, what help can they provide? These are the issues that we are starting to address before we go to the Board with a recommendation for a public hearing on the program. As you can see, it is not a simple task to bring management to the local level. Stay tuned for a follow-up article early next year as we complete the ordinance enacting the program and begin implementation. ♦

After nearly 30 years with the U.S. EPA, Bob Lee is now the Loudoun County (Virginia) Health Department's Manager for Environmental Engineering and Policy Development. He is active on NOWRA's Model Performance Code Committee, serves as Membership Chairman and is a former Executive Director of NOWRA.

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NOWRA— Continuing Education, One Regulator’s Perspective

Continuing education for individuals involved in the onsite wastewater treatment system industry is a concept that has been receiving a lot of attention for several years. Many states have fixed-base training centers that are usually operated through a partnership between the private, public and academic sectors of the onsite community. Several academic institutions also offer ongoing educational opportunities, either as a part of their regular curriculum or as special courses. National organizations such as NOWRA and NEHA also provide educational forums at their annual conferences and offer other opportunities, typically on a request basis. Do these types of opportunities add value when considering the evolving status of the onsite industry? Hopefully, the answer is yes!

One of the comments heard from all sectors of the onsite community is that there is a need to upgrade the knowledge base of the participants. Interestingly, when the comments are made, they are often pointed at another sector of the onsite community. Regulators say the designers/installers need to improve their knowledge base and designers/installers say that the regulators must look beyond their rule books and broaden their knowledge of onsite systems.

Continuing education is a viable, needed concept. Although the term often describes education offerings that are meant to supplement or expand upon an existing knowledge base, the same mechanisms can be used as a starting point for providing initial training as well.

For the purpose of this discussion, let’s assume (hopefully this isn’t too big an assumption) that we can agree that having access to educational opportunities is beneficial to all members of the onsite community. From a regulator’s perspective there are several issues that must be considered.

Content of educational offerings is often an issue when regulators are asked what should be presented at seminars or contractor meetings that many regulators hold. Is a generic offering that attempts to introduce several diverse concepts better than a topic-specific offering that targets a specific part of the onsite community? This may seem like an easy question. However, with diverse levels of knowledge and skills due to educational backgrounds, normal turnover in personnel both in the regulatory

and industry areas, and tight budgets everywhere, it is sometimes difficult from a planning perspective to maximize a “return” on the educational opportunity investment. It is just as difficult to choose what educational opportunities to attend (and pay for) from the attendee’s perspective. A model that seems to work well in Wisconsin is to offer different specific topic seminars every year (i.e. mound design) and periodically (approximately every five years) offer a series of “back to the basics” seminars. This allows those newly hired local regulators and new industry members to find out about some of the basic information that is second nature to experienced practitioners but is often not passed on as they retire or move on to other endeavors.

In addition to deciding what type of educational opportunities will be offered, there are other considerations from a regulatory environment position. For example, will the educational opportunity be offered as part of a voluntary participation model? Or, will it be part of a mandatory continuing education process that is linked to the renewal of a license, certification or registration. The voluntary participation model is probably the easiest to initiate and operate from an administrative perspective. A class or seminar is developed and offered. (Hopefully, it is well attended to recover development and presentation costs.) The mandatory attendance model adds significant complexity from an administrative perspective. Questions that must be considered include, “what type of educational opportunities will be considered ‘acceptable’ to fulfill the continuing education requirement?” For example, is a class in “how to run a business” acceptable as continuing education for a soil evaluator? Who can offer the educational opportunities? For example, must it be someone from the academic community, or may it be a regulator, designer, product vendor or other individual?

Administering a continuing education program that is typically part of a larger credentialing program can be a daunting task. As mentioned earlier, educational opportunities must be “approved.” But in addition, records must be created, maintained and monitored. This includes everything from seminar attendance records to individual credential files. Continuing education hour fulfillment must be verified because renewal of credentials is contingent at least in part on this information. Mandatory attendance requirements bring additional issues for the regulator such as whether there are sufficient educational

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opportunities at sufficient locations within the jurisdictional area to satisfy the question of reasonable availability. Some models include mandatory attendance at one time of year at specific locations. Other models include more choices where various “vendors” offer “pre-approved” seminars and may in fact compete with each other based on the quality of the presenters and material (or maybe it’s the quality of the food and refreshments). Which model is better? It’s hard to say. Some will argue that the mandatory attendance model with locations within reasonable driving distance helps ensure that everyone is obligated to hear the consistent message that is being delivered. But if someone attends simply because they are required to “get their hours in” and spends the contact time reading a magazine, has anything been gained?

The voluntary attendance model seems to work well too. NOWRA’s A to Z courses are enjoying tremendous success as evidenced by the large number of attendees whenever the courses are offered. This implies that there is, and will continue to be, demand for basic onsite related information. Many state organizations offer educational opportunities at their annual conferences. These too are well attended, probably because they offer the combination of listening and learning from both the presenters and from other attendees.

Wisconsin has a fairly mature system of continuing education, dating back to the early 1980s, that is linked to a comprehensive credentialing program. While we believe that the program to

date has been successful, we also realize that we cannot simply rest and look back on our accomplishments. With the rapid and accelerating developments in the onsite industry that we are now witnessing, we recognize that we must continue to expand educational opportunities for all our onsite practitioners. This will mean partnering with experts in the field who may be other than those we have historically relied on to provide information.

The question may not be whether continuing education is a good thing from a regulator’s perspective. Maybe the real question should be are we as regulators prepared to do what it takes to facilitate the availability of information for those who desire it? ♦

Roman Kaminski is the operations manager for Wisconsin’s Onsite Program, operating out of the Dept of Commerce; he currently serves on NOWRA’s Model Performance Code Committee and Board of Directors.

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WERF, U.S. EPA Hold Biosolids Research Summit

—A Report from the Water Environment Research Foundation

Nearly 200 invited participants and observers attended the Biosolids Research Summit July 28-30 in Alexandria, Virginia., sponsored by the Water Environment Research Foundation (WERF) and the U.S. Environmental Protection Agency. At the summit, participants identified the most pressing research needs regarding land application of biosolids.

In all, participants identified 31 potential highest-priority research projects in six categories: human health; pathogens; fate and transport of organic and inorganic chemicals; risk assessment; treatment, odor, and management; and social and economic issues. Six stakeholder groups participated in the summit and ranked their top priority research projects. Although each group may have ranked projects differently, when compiled together as one group, participants chose the following as the highest ranked projects:

1. Rapid incident response to concerns about possible health affects associated with a biosolids land application process.
2. Targeted characterization of pathogens in sludge and biosolids.
3. An updated national survey of constituents of potential concern in biosolids.
4. Characterization of bioaerosols associated with certain kinds of land applied biosolids.
5. Identify the odor compounds emitted by sludge in the various stages from generation to end use, and specify their sensory potencies and mechanisms of generation and release.

6. Cost-benefit analysis of management options for sludge/biosolids use and disposal.
7. Evaluate the effectiveness of current 503 regulations and other management practices.
8. Evaluate the effectiveness of recommended management practices in minimizing pollutant transport from biosolids amended sites.
9. Evaluate treatment processes to reduce or minimize odor generation through process optimization, including investigating additives to control odor.
10. Evaluate emerging and existing treatment technologies.

A PDF document that contains a list of all 31 projects, and how the six stakeholder groups voted on each one, is available at <http://www.werf.org/pdf/BiosolidsProjectsSummary.pdf>

WERF and the U.S. EPA sponsored the summit to provide a forum to discuss scientific research needed to address concerns raised by the National Research Council (<http://books.nap.edu/books/0309084865/html/index.html>) regarding land application of Class A and/or Class B treated sewage sludge/biosolids, and other research needed to ensure public health and environmental protection.

Attendees included representatives from farming communities, private citizens, research scientists specializing in chemicals and pathogen exposure, physicians, non-governmental organizations, and regulators from states and localities working on land application issues.

They represented a range of views as to the appropriateness and safety of biosolids application. During the first day, participants discussed research needs, and what makes the results of that research understandable and acceptable to the public as well as the scientific community.

“From this summit, WERF has learned that it must not only maintain the globally accepted principles of scientific, peer-review procedures, but also must add value to the research by involving stakeholders and adding transparency to all steps in the process,” said Glenn Reinhardt, executive director at WERF. “This summit will not only impact the way WERF conducts its research-agenda-setting priorities and oversees its research projects, but may in fact affect processes at other scientific organizations as well.”

The day began with opening remarks and a welcome from Kevin Teichman of the U.S. Environmental Protection Agency, who provided a brief explanation of how the summit fit into U.S. EPA’s efforts to address research needs and gaps. Other presenters during the first day included five members of the NRC study panel and one WERF staff person: Frederick Pohland, Ph.D., University of Pittsburgh; Ellen Harrison, Cornell Waste Management Institute; Charles Haas, Ph.D., Drexel University; Nicholas Basta, Ph.D., Ohio State University; Robert Spear, Ph.D., University of California, Berkeley; and Daniel Woltering, Ph.D., WERF Director of Research.

For the final two days, the diverse assembly was broken into smaller groups, each of which focused on one of the six research categories. Each group brainstormed a list of biosolids research needs for their category and developed specific recommendations for research priorities,

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project oversight, and funding needs. Each group then chose their highest priority projects, resulting in the final list of 31 proposed research projects.

At the end of the final day, participants ranked all of the research projects across the six categories. This fall, WERF plans to publish a participant-reviewed report capturing the research recommendations of the summit. All stakeholders who attended the summit, and many who did not attend, contributed to the final research agenda that will be captured in the report. Many of the research needs identified built upon recommendations made in the NRC report.

The recommended research projects are expected to carry considerable weight, given that this summit marked the first time that a diverse variety of stakeholders, including concerned citizens, has gathered at a national level to develop and prioritize biosolids research needs. The next step will be to secure funding for each of the high priority projects and determine what organizations or agencies are best suited to conduct each one. WERF has already stated that they will include the recommendations from the Biosolids Research Summit in their established research funding and priority-setting processes. U.S. EPA has indicated it will factor the information from the summit into their final response to the NRC report.

WERF has allocated \$200K to move forward quickly on one of the highest ranked projects and will continue to fund \$1.5 million per year in biosolids-related research projects, as it has done over the last several years. In addition, WERF is furthering its new public partnering initiative by developing additional ways to involve stakeholders in those research areas that are of greatest interest to the public, such as biosolids.

The report from the summit will be available to anyone in hard copy at nominal cost through the WERF website; an electronic copy (PDF) will be available free. (See www.werf.org). ♪

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NOWRA's 12th Annual Conference & Exposition

Decentralized Systems—The Changing World of Wastewater Treatment

November 3-6, 2003 • Franklin Marriott Hotel and Cool Springs Conference Center • Franklin, Tennessee

CONFERENCE REGISTRATION FORM



Please duplicate this form for additional registrations.

Last Name (please print) _____ First Name _____ Name for badge (if different from first name) _____
 Company/Organization _____
 Street Address _____
 City _____ State/Province _____ Zip/Postal Code _____ Country _____
 Daytime Phone _____ Fax _____ e-mail _____

*NOWRA Partnering Associations include: The National Association of Wastewater Transporters, the National Environmental Health Association, the National Groundwater Association, and the NWRCD Project.

CONFERENCE FEES Late registration is AT CONFERENCE ONLY	Early by 9/15/03		Regular 9/16-10/15/03		Late 10/16		Total
	Member/Partner*	Non-Member	Member/Partner*	Non-Member	Member/Partner*	Non-Member	
Monday Pre-Conference Workshops (must pre-register to receive workshop handouts) <input type="checkbox"/> CPR for Onsite Systems <input type="checkbox"/> Developing a Model Performance Code	\$175	\$225	\$175	\$225	\$225	\$325	_____
Technical Sessions (Tuesday–Thursday) Non-Member price includes membership for 2004 I plan to attend: <input type="checkbox"/> Onsite A to Z Systems Course <input type="checkbox"/> Post-Conference Roundtable Discussion	\$375	\$475	\$425	\$525	\$450	\$550	_____
Technical Sessions—Student Student price includes membership for 2004 I plan to attend: <input type="checkbox"/> Onsite A to Z Systems Course <input type="checkbox"/> Post-Conference Roundtable Discussion	\$125	\$125	\$125	\$125	\$125	\$125	_____
Daily Attendance <input type="checkbox"/> Tuesday <input type="checkbox"/> Wednesday <input type="checkbox"/> Thursday	\$200	\$250	\$225	\$300	\$250	\$350	_____
Other Fees Spouse/Guest (includes Welcome Reception, Awards Luncheon, hospitality room, gift and tour)	\$125	\$125	\$125	\$125	\$125	\$125	_____
Monday, Nov. 3—Welcome Reception	\$30	\$30	\$30	\$30	\$40	\$40	_____
Tuesday, Nov. 4—Prayer Breakfast	\$15	\$15	\$15	\$15	\$15	\$15	_____
Tuesday, Nov. 4—Awards Luncheon	\$40	\$40	\$40	\$40	\$55	\$55	_____
Thursday, Nov. 5—Onsite Systems Field Trip	\$75	\$75	\$75	\$75	\$75	\$75	_____
Total Enclosed _____							_____

PAYMENT INFORMATION Fed. ID Number: 593099430
 Check Visa MasterCard
 Card No. _____
 Exp. Date _____

Mail completed form with check (payable to NOWRA) or fax your registration with credit card information. Registrations are only accepted with full payment in U.S. dollars. After October 15, 2003, registrations are only accepted at the Conference.

NOWRA Conference Registration
 P. O. Box 1270 • Edgewater, MD 21037-7270
 or fax credit-card-paid forms to (410) 798-5741

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GROUP NAME:	National Onsite Wastewater Recycling Association
Group Code/Acct #:	NOWN/7204
PROGRAM DATES:	November 2 – 6, 2003
RATE:	\$99.00 (plus tax)
CUT OFF DATE:	Monday, October 12, 2003

Reservation requests after the cut off date are subject to availability, and rates higher than the group rates may apply.

GUEST INFORMATION

Guest(s) Name(s): _____

Address: _____

City/State/Zip: _____

Home Phone: _____ Work Phone: _____

Fax: _____ Email: _____

Arrival Day: _____ Arrival Date: _____

Departure Day: _____ Departure Date: _____

Number of Rooms: _____

SPECIAL REQUESTS:

(All special requests are on a space availability basis.)

- Smoking Room Non-Smoking Room King Bed 2 Double Beds

Other: _____

RESERVATIONS MUST BE ACCOMPANIED BY A DEPOSIT OR AN ACCEPTED CREDIT CARD NUMBER AND SIGNATURE.

- Guaranteed by first night's room and tax enclosed
(Tax 14.25% TN State and Local)
- Guaranteed by my credit card (please check one):
- American Express Diners Club Visa MasterCard Discover

Credit Card #: _____ Expiration Date: _____

I understand that I am liable for one night's room and tax which will be deducted from my deposit or billed through my credit card in the event that I do not arrive or cancel 72 hours prior to arrival date indicated.

Signature _____

Please fax or mail complete form to Franklin Marriott Cool Springs, ATTN RESERVATIONS, 700 Cool Springs Boulevard, Franklin, TN 37067, Fax 615-261-6148.



2003-2004 Calendar

September 22-23, 2003

12th Northwest On-Site Wastewater Treatment Short Course and Equipment Exhibition

Sponsored By: University of Washington Dept. of Civil & Environmental Engineering & Washington State Department of Health University of Washington, Seattle Washington

For more information, contact:

Christy Roop Pack, Conference Manager

Toll Free: 1-866-791-1275

E-mail: uw-epp@engr.washington.edu

September 24, 2003

Washington OnSite Sewage Association (WOSSA)

Workshop—University of Washington, Seattle, WA

Additional Information: Christy Pack

croop@u.washington.edu or telephone (206) 221-3936

September 25, 2003

12th annual State-County Ground Water Symposium

Sponsored By: Maryland Dept. of the Environment Best Western Hotel and Conference Center

5625 O'Donnell Street, Baltimore, MD 21224

For more information, contact:

Norman Lazarus

Maryland Dept. of the Environment

Water Supply Program

1800 Washington Blvd., Baltimore, MD 21230

e-mail: nlazarus@mde.state.md.us

September 25-28, 2003

Texas Onsite Wastewater Association (TOWA)

Fall Conference

Omni Westside Hotel, Houston, Texas

Additional details contact TOWA state office -

512-494-1125 or visit our web site www.txowa.org.

October 3-5, 2003

TOWA West Texas Chapter Fishing &

Continuing Education

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Contact Ray Stubblefield at 915-658-8792 for details

November 3-5, 2003

NOWRA 12th Annual Conference

Registration: NOWRA Headquarters, 800-966-2942

November 24-25, 2003

7TH Annual Delaware Wastewater Recycling

Association (DOWRA) Conference

Dover Downs Hotel and Conference Center, Dover, DE

Additional information contact David Schepens,

Department of National Resources – 302-739-4761

January 7 & 8, 2004

5th Annual OOWA / OLICA Convention & Trade Show Akron, Ohio

For more information contact OOWA Program Chair,

Tom Grigsby, at 614-644-8663 or

tgrigsby@gw.odh.state.oh.us



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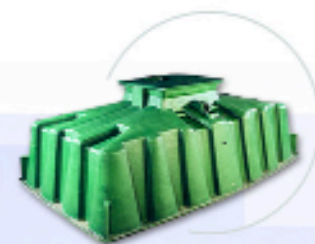
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