

National Onsite Wastewater Recycling Association

Volume 12, No. 1 January-February 2003



Postage & Administrative Services

Model Performance Code Education,
Programs,
Publications &
Conference

- **√2002** Annual Report
- **✓** Regulations
- **✓** Education

President Tim A. Frank 440/636-5111 Vice President/President-Elect Raymond Peat 800/753-3278 Secretary/Treasurer A. Thomas Ferrero, Jr. 267/250-4068 Past President Robert B. Mayer, P.E. 800/345-3132 **Directors** Matt Byers, Ph.D. 800/928-7867 Jean Caudill 614/644-7181 James Converse, Ph.D. 608/262-1106 David C. Flagg, Jr. 636/583-5564 Tom J. Fritts 816/966-8885 Brenda R. Guy 225/665-1666 Roman Kaminski 715/345-5334 Jack A. Myers 941/758-0674 Jeff A. Snowden 512/338-1804 Larry Stephens, P.E. 517/339-8692 Jerry Stonebridge 360/331-6101 Ronnie Thomas 703/594-3001 E. Jerry Tyler, Ph.D. 608/835-9499 Executive Director Linda Hanifin Bonner, Ph.D. 800/966-2942 **COMMITTEE CHAIRS Bylaws** Ted L. Loudon 517/353-3741 Communications/Promotion Michael Stephens 517/339-8692 Conference 931/380-8032 Leeann Whitehead Brenda R. Guy 225/665-1666 **Fundraising** Robert B. Mayer 800/345-3132 **Education & Training** James Converse, Ph.D. 608/262-1106 Peggy Minnis, Ph.D. 203/866-3006 **Government Relations** Robert Himschoot 941/332-1986 Richard K. Bachelder 207/363-2528 License, Certification & Ethics David Linahan 610/644-4254 Membership Robert E. Lee, P.E. 703/737-8931 Performance Requirements/ Model Performance Code Michael F. Corry 608/257-1787 Jean Caudill 614/644-7181 State Association Presidents (Vacant) **Technical Practices** Richard J. Otis, Ph.D., P.E. 608/249-0471 Ralph Benson 513/732-7603

NOWRA Headquarters

P.O. Box 1270

Edgewater, MD 21037-7270 Phone: 800/966-2942 or 410/798-1697

Fax: 410/798-5741

e-mail: NOWRA@hanifin.com Website: www.nowra.org

Secondar Mecycling	Onsite	
	Journal	

National Onsite Wastewater Recycling Association

	DEPARTMENTS
	Frankly Speaking Tim Frank, NOWRA President
	NOWRA Headquarters Update—2002 Annual Report Linda Hanifin Bonner, Ph.D., Executive Director
	State & Province Happenings
	FEATURES
	NOWRA Adopts Code of Ethics
	Model Performance Code Committee Update Mike Corry, Chair
	On the Legislative Front
	NOWRA 2003 Technica Education Program
	"Ride or Get Run Over"—An Interview with Brenda Guy
	Another Member Opinion About RMEs Ralph Macchio
	Becoming a NOWRA State Association or Constituent Group20
	2003 Conference Conference Exhibitor Information
4	ANNOUNCEMENTS
	Communications Committee Seeks Articles
	Onsite Insite Advertising Opportunities & Rates
	Proposed: A New Technical Section for <i>Onsite Journal</i>

FRANKLY SPEAKING...

by Tim Frank, NOWRA President

s NOWRA's September 2002 Conference in Kansas City ended, your officers and board members were immediately involved in a whirlwind of activities developing 2003 programs and budgets, and attending numerous state meetings. This has been one incredible experience; I cannot begin to adequately describe the tremendous work that Association members across the U.S. are accomplishing within the onsite industry. There are literally hundreds of people who are becoming involved with NOWRA as a result of our education programs and state meetings. And, there are even more opportunities ahead for members to become involved in our programs that are designed to provide both long-term professional and economic benefits.

As your president, I have been privileged to speak at various state meetings being held in Michigan, Kentucky, Iowa, Ohio, and with the Texas Board of Directors at their quarterly meeting in Austin. I have been joined in several meetings by NOWRA's vice president, Raymond Peat, who manages to keep me out of the frying pan when I speak about the importance of being involved in NOWRA. I would thoroughly enjoy going to all of the state conferences, and speaking with all of you—and wish we could afford the airfare for them all (I'm told my guys here in Huntsville like it real well when I'm on the road). However, at our November meeting, it was agreed that a NOWRA Board member would try to attend meetings that are close to his/her area, so that the Board is represented and can answer questions about our programs. Our goal is to improve communications, build membership, and provide support to our state groups. We are really fortunate to have corporate board members such as Raymond Peat, Brenda Guy,

Tom Ferrero and Matt Byers to help fill in where I cannot attend.

We had a great time in Kentucky with an excellent technical program and incredibly high attendance. Mike Corry also attended and gave an outstanding presentation on the work of NOWRA's Model Performance Code and Wisconsin regulations; there as well, was Bob Rubin who explained in greater detail the 5-part management guidelines developed by EPA.

The Ohio and Michigan meetings were equally successful, with Michigan topping 500 attendees, which shows that practitioners are interested in learning about what's going on in the onsite industry. Both Michigan and Ohio have new officers with high energy levels for promoting new programs and activities. Onsite systems represent the threshold of a new era in the wastewater industry. This means that if we as practitioners don't raise the bar of professionalism and ensure that states have the education and training support they need, the change will occur without us, and we will be out of business. The Michigan conference involved three major associations—showing the results of teamwork, led by Ted Loudon and others. Tom Ferrero asked if I would help with his grease talk—and of course I said yes because when he does this it makes me look good (thanks Tom)!

The Ohio program featured a pilot education and training qualifier program for installers, and as a result, sixteen installers came away with an Ohio onsite wastewater qualifier installer certificate. On the 10th of January, the Ohio Waste Haulers Association put on the basic training and qualification program for service providers with 56 attendees participating in the course designed and taught by Jim

Anderson & Dave Gustafson—which had great reviews. These courses represent the beginning of the new type of training and education needed to address the EPA management guidelines and move the onsite industry forward.

NOWRA conference & education committees are hard at work in developing the 2003 conference programs—so it is important to get your papers in about the onsite work being done through research or projects. One of the pre-conference sessions is another new program developed by NOWRA: "CPR for Onsite Systems" promises to provide a perfect forum to learn about ways to prevent failures, as well as performing effective customer maintenance. This year's conference site in Franklin, TN, (just south of Nashville) is a great location for the 2003 program. We are looking forward to seeing old colleagues and meeting new ones.

We are also continuing our work on the EPA management guidelines, which can be accomplished as we begin to understand how the states and EPA want us to proceed. The more we get into this subject, the more we have to emphasize the

continued on page 23



Tim is president of Tim Frank's Septic Tank Cleaning—a successful business of installing, servicing and managing onsite systems throughout Ohio.

2002 ACCOMPLISHMENTS LAUNCH 2003 PROGRAMS

Linda Hanifin Bonner, Ph.D., Executive Director

OWRA's Officers, Board and Management Team are excited to report about the numerous accomplishments accelerating the Association's progress as a leader in the onsite industry. A portion of NOWRA's 2002 Annual Membership Report was included in the previous issue of the *Onsite Journal*. This issue provides additional details, and focuses on NOWRA's 2003 Plan for Progress. A complete report is available on NOWRA's website, under the category of "2002 Annual Membership Report."

One important topic in this report is NOWRA's financial health! We do answer the questions—where does NOWRA receive its money, and how is it spent?—and certainly, finances are an essential component in the benefits and services we are able to provide to our members. But perhaps the greatest value of NOWRA membership is derived from the tangible ongoing work and contributions to the industry of NOWRA's Committees, officers and members overall and the intangible satisfaction of serving to advance our industry. It is the collective "power of all of us" that creates this value.

HIGHLIGHTS OF 2002 ACCOMPLISHMENTS

⊃ NOWRA's Professional Ethics Code

- NOWRA Board members unanimously adopted a professional ethics statement as a guide for industry members and standards.
- **⊃** We achieved Federal & Industry Funding for 70% of the Model Performance Code work—which enables NOWRA to have a full-time project manager in 2003.
 - Committee membership 85% completed; we still need partners representing the building, banking and realty industry.
 - Three subcommittees are formed and actively working to advance products and progress.
 - Committee meeting procedures have established regional locations for regulator and member attendance and participation.
 - The first major product—the Numeric Matrices—is completed.
 - Soils matrices work is funded and underway.
 - Work plans for the Evaluation and Guidance Documents are in place, products being drafted and additional funding sought for development.

- NOWRA's Expanded Education Program focused on providing services to those who do not have established training centers and groups in their area.
 - Developed three regional workshops
 - Produced two draft manuals that are being reviewed by the Technical Practices Committee
 - Created two new programs for use in 2003: Builders/Realtors Education and Onsite Cluster Systems for Communities and Sensitive Environmental Areas

⊃ NOWRA's Onsite Journal

- Transitioned from a "newsletter" in 2000 to a more professional publication representing all member interests in 2003
- Focus on member interests and professional services support

○ NOWRA Membership, Services and Products Directory

 Completed and sent to the printer for January 2003 delivery—new format and content designed to provide benefits to members.

⊃ Website Expansion Plan

• A major expansion plan for NOWRA's website was produced and approved by the Board of Directors, with funding being sought for implementation.

○ Management and Financial Restructure

- NOWRA's executive committee and director successfully changed the headquarters work program that achieved a profitable ending to 2002.
- Adopted a 2002 programs and operations budget; developed and adopted a 2003 programs and operations budget
- Expanded NOWRA's professional reputation and credibility by developing partnerships with other organizations—and gained additional financial resources

⊃ Successful 2002 Conference Program

- Best attendance for education programs and exhibitor participation
- Represented a major financial recovery from the aftermath of 2001

Management and Member Services

2003 Budget

Final touches on NOWRA's 2003 budget concluded in December with the Executive Committee's approval on 12/30/02. What a way to end the year! Developing the 2003 budget included production of other "major income" program budgets such as the 2003 conference and education programs. Keeping in mind the guidance from the Board meeting, the education program is not considered to be a major "revenue" producer—as compared to the Conference revenues—but it still has an impact on our finances. This document was discussed by the Board on Jan. 3rd, and approved, representing a "first" for NOWRA—to have an approved budget going into its coming year.

Insurance Program Opportunities— State Groups gain a new membership benefit!

An important operational expense in all of our association work is the Directors' and Officers' Liability Insurance, which we all must have in order to protect our members' financial resources. Since 9/11/01, insurance rates for all programs have increased—and this one was no exception. However, after a three-month investigation, the D&O insurance policy was obtained by NOWRA and, more importantly, the policy premium was \$60.00 less than the previous year! And there is an added benefit to this program. Because of NOWRA's national affiliation with this program, we are able to provide the opportunity for the state groups to

obtain their D&O insurance policies which hopefully would be at a better rate than they currently have with existing carriers. State group leaders should contact the NOWRA Executive Director for more information, and soon details will be available on NOWRA's web site.

EPA Meeting Participation—building membership benefits through national programs!

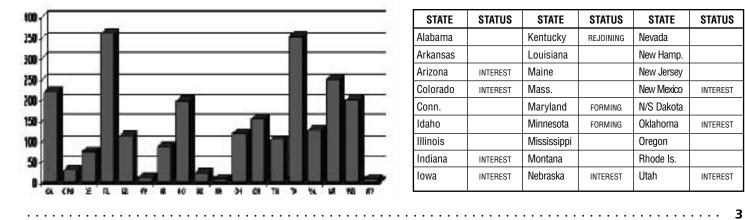
In mid-December, NOWRA was represented at several EPA meetings focusing on their outreach and education programs for the management guidelines, that included the involvement of President Tim Frank and myself. The result of participating in these events is a stronger national presence for NOWRA, which facilitates our working towards making the Model Performance Code for the onsite industry a reality. Why is this important to members? The knowledge gained from these meetings is that NOWRA's work has achieved a significant credibility from other organizations and agencies. This position helps NOWRA in working to obtain funding for state and national programs—and to pass down any benefits to NOWRA members. There are several follow-up activities to pursue, one of which involves developing a regional workshop for elected and appointed public officials to educate them on the technological gains in water quality that have evolved over the past decade within the onsite industry.

Membership Recruitment

November and December were very active months with respect to reaching out to state groups, beginning a heavier involvement of NOWRA leadership in state meetings, and keeping in touch with issues of most concern to NOWRA members. NOWRA's leaders were present at North Carolina, Texas and Kentucky State meetings, in addition to making presentations in Iowa and Nebraska. The many meetings occurring in 2003—particularly in January and February—had, or will have, a member of the NOWRA leadership team available to answer questions, and participate in the program as requested by our state hosts. In addition, education information and materials have been sent to each of the state groups from the national office. A special survey questionnaire is being distributed to gain insights into NOWRA member needs and to help board members and committee chairs develop responsive programs geared to meeting professional advancement needs and opportunities. In addition, all of the 2003 dues notices were sent out before the end of the year to state groups and individuals.

Of the 28 non-member states, Maryland and Minnesota are forming groups, 8 more states are interested and Kentucky is rejoining NOWRA!

Membership Status by State/Province



Non-Member State Status

STATE	STATUS	STATE	STATUS STATE		STATUS
Alabama		Kentucky	REJOINING	Nevada	
Arkansas		Louisiana		New Hamp.	
Arizona	INTEREST	Maine		New Jersey	
Colorado	INTEREST	Mass.		New Mexico	INTEREST
Conn.		Maryland	FORMING	N/S Dakota	
Idaho		Minnesota	FORMING	Oklahoma	INTEREST
Illinois		Mississippi		Oregon	
Indiana	INTEREST	Montana		Rhode Is.	
Iowa	INTEREST	Nebraska	INTEREST	Utah	INTEREST

2003 Plan for Progress

- Obtain Funding for NOWRA's "Qualifier" Program
- → Accomplish 85% of the Model Performance Code Work
- Increase NOWRA's membership base by 25%
- **⊃** Provide programs to increase professional education
- **⊃** Re-evaluate NOWRA's structure (governance)
- → Produce NOWRA's first Technical Manuals of Practice
- → Expand member benefits and services

From the November 2002 meeting, NOWRA's board members are assuming a stronger and proactive role in 2003, both with respect to building the association and making major commitments to the programs. Three of NOWRA's committees have leadership changes, which will make a difference by 2004. Tom Fritts is chairing the State Presidents Committee and is focused on re-energizing this group to be more involved in the decision-making and growth of NOWRA. Board member Brenda Guy is working with the Executive Committee and director to implement initiatives that will increase NOWRA's revenues. Bob Himshoot from Florida has assumed the leadership of the Government Relations Committee with goals to interact with all states on their legislative issues in 2003 and in defining needs for 2004. In addition, NOWRA's executive director will make periodic visits to capital hill to lobby for additional funding for the decentralized industry. All of NOWRA's committees are actively engaged in developing work plans and products that achieve the goals defined in the framework. During the month of December, committee meetings were held via tele-conferencing, setting specific tasks to be achieved in 2003.

A NOWRA QUALIFIER PROGRAM—a new prototype effort that advances members' professional status!

NOWRA's leaders made a major commitment to develop a national professional "qualifier" program for onsite industry practitioners in 2003. The first target group is installers. A model program of this type is being pursued in the State of Ohio under the direction of Ralph Benson. A pre-proposal to fund this program on a national level was developed by NOWRA's Technical Practices Committee under the direction of Ralph Benson, and submitted to the US EPA Water Quality Cooperative Agreement Program for 2003/2004 by NOWRA's Executive Director on December 30, 2002.

EDUCATION AND PUBLICATIONS Education and Training – A #1 Priority!

A series of new education sessions is offered and available for 2003. These programs are highlighted in a separate article. These sessions supplement and support State programs. In addition, new manuals for NOWRA Education Programs will soon be available.

Publications 2002/2003 DIRECTORY SUCCESS!!!!

We did it before the end of 2002! And with a very special Thank You to all of NOWRA's supporters for providing the resources to make this product a reality.

Work on completing the Directory was delayed in the fall due to the Conference Program and the need to gain additional advertisers. However, the additional time spent in develop-



ing the new format and integrating the database system is an investment in next year's document. The new Directory has color dividers to address onsite industry products. We believe this one will "sell" to our advertisers—and as a result, 2004 will be even more successful. The goal—"a well-used document" on every regulator's and specifier's bookcase!

NOWRA'S WEBSITE—The beginning of new communication improvements with NOWRA members!

We are continuing in our work to improve and expand NOWRA's website—which is critical to the work of the Model Performance Code and obtaining input from regulators and public officials across the country. During the November Board meeting, a presentation was made on one firm's approach to accomplishing our defined goals. Since that time, two other vendor proposals have been received and are under consideration by NOWRA's Board. Each of the firms has strong capabilities to accomplish our desired task—each has varying levels of sophistication—and, of course, costs. The Board instructed the executive director to proceed, but only when financial resources are available. In the interim, the website has been updated and will be reviewed on a weekly basis to provide timely information to members.

2003 CONFERENCE PROGRAM UPDATE

The call for papers is out—and committee members are diligently at work to plan a successful program and activities in Franklin, Tennessee (just outside Nashville—you know, where "OPRY-LAND" is—and the likes of Alan Jackson and Faith Hill live). NOWRA's 12th annual conference begins Monday, November 3, 2003—with "dual" preconference workshops: one for contractors and one dedicated to other technical areas of interest, as well as highly valuable technical sessions occurring over a 2-1/2 day period.

NOWRA's 2003 Advertising

Campaign has been launched and sent to NOWRA vendors and interested parties. This year, only a 7% increase occurs in ad rates. The desired result is an increase in advertisers, as the NOWRA *Onsight Journal* continues into a new level of professionalism. With Dr. Matt Byers' support, NOWRA will feature a "juried" article in each issue, in addition to special articles for each of the member interests.

4

NOWRA 2002 BUDGET OVERVIEW

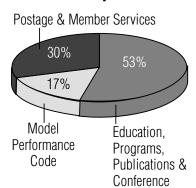
WHERE NOWRA RECEIVED ITS MONEY

Primarily, NOWRA received the money it used in 2002 for its education programs and member services from conference revenues, grants to support specific programs and projects such as the Model Performance Code, publication advertising, membership dues and education. As illustrated, membership dues only fund 22% of NOWRA's Budget.

Advertising 13% 43% 7% 22% Education Conference Dues Grants

2002 Income

2002 Expenses

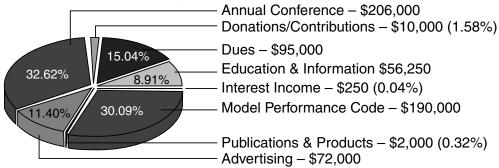


WHERE NOWRA SPENT ITS MONEY

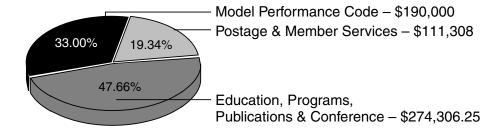
The most significant area in which NOWRA spent its money in 2002 was to fund member education and training, public information, and conference programs. The second represents the administrative costs to run the organization—staff support to implement the programs, and postage fees. The third cost category is NOWRA's work on the Model Performance Code—which will play a significant role in ensuring that water resources are protected while providing needed infrastructure services.

NOWRA 2003 BUDGET OVERVIEW





TOTAL EXPENSES: \$575,614.25



NOWRA's Approved 2003 Program and Operations Budget

November's work efforts during the board meeting in Nashvillefocused on financial management, the 2003 budget, NOWRA's Annual Conference, and preparing for end of year financial reports with greater analysis on the increments within the operations budget. In this process the headquarters office works with the committee chairs and the Executive Committee to define program efforts for the coming year and finding the resources required to implement them.

	2001 Actuals	"Adopted 2002 Budget"	"2002 Actuals as of 12/30"	"Adopted 2003 Budget"
INCOME				
ADVERTISING (Directory, Onsite Journal)	\$ 42,393.67	\$ 49,500.00	\$ 48,947.00	\$ 72,000.00
ANNUAL CONFERENCE	\$ 206,617.00	\$ 241,150.00	\$ 183,210.00	\$206,000.00
DONATIONS/CONTRIBUTIONS	\$ 7,515.00	\$ 3,660.00	\$ 8,480.00	\$ 10,000.00
DUES (Groups, Regular Members, Regulators)	\$ 86,620.00	\$ 94,950.00	\$ 83,148.91	\$ 95,000.00
EDUCATION AND INFORMATION (NEW in 2003)				\$ 56,250.00
INTEREST INCOME	\$ 2,464.07	\$ 600.00	\$ 160.94	\$ 250.00
MODEL PERFORMANCE CODE		\$ 74,850.00	\$ 76,067.30	\$190,000.00
PUBLICATIONS & PRODUCTS	\$ 3,163.50	\$ 6,125.00	\$ 1,157.00	\$ 2,000.00
TRAINING/EDUCATION				
(Changed to Education & Information in 2003)	\$ 14,384.00	\$ 60,000.00	\$ 30,940.00	
TOTAL INCOME	\$ 363,157.24	\$ 530,835.00	\$ 432,111.15	\$ 631,500.00
EXPENSES				
ACCOUNTING (2002 includes year-end audit + model code)	\$ 12,185.00	\$ 4,000.00	\$ 12,686.00	\$ 10,000.00
AWARDS/PLAQUES (Deleted in 2002 – placed in Conf exp.)		\$ 2,000.00		
BANK FEES & FINANCE CHARGES (+ bad debt writeoff)	\$ 94.76	\$ 300.00	\$ 277.36	\$ 300.00
CONFERENCE EXPENSES	\$128,620.82	\$139,700.00	\$ 156,238.60	\$157,475.00
CREDIT CARD	\$ 4,817.42	\$ 1,200.00	\$ 4,544.37	\$ 5,000.00
EDUCATION & INFORMATION (New in 2002)			\$ 27,638.48	\$ 43,331.25
EQUIPMENT	\$ 1,910.02	\$ 1,320.00	\$ 1,308.00	\$ 1,308.00
FILING FEE (Annual State Corp [moved to Legal])		\$ 65.00	\$ 61.25	\$ 150.00
INSURANCE	\$ 2,557.00	\$ 2,000.00	\$ 2,627.00	\$ 3,000.00
LEGAL FEES			\$ 3,249.68	\$ 1,000.00
MARKETING (Moved to Publications/Products in 2002)	\$ 3,420.30	\$ 4,300.00		
MANAGEMENT/MEMBER SERVICES (inc. EPA Contract)	\$ 183,117.45	\$ 78,000.00	\$ 90,697.75	\$ 78,000.00
MEETING EXPENSES	\$ 302.39			
MODEL CODE	\$ 4,338.70	\$ 74,850.00	\$ 76,067.30	\$190,000.00
OFFICE SUPPLIES	\$ 1,320.98	\$ 850.00	\$ 645.15	\$ 450.00
POSTAGE/SHIPPING	\$ 21,365.17	\$ 14,500.00	\$ 11,590.88	\$ 4,200.00
PUBLICATIONS/PRODUCTS (Production & Publication:	· ,	· ,	. ,	· ,
Onsite Journal, Directory, Homeowners Folder)	\$ 42,784.71	\$ 64,099.53	\$ 37,775.58	\$ 73,500.00
REPRODUCTION/PHOTOCOPY	\$ 4,456.33	\$ 4,500.00	\$ 1,238.93	\$ 1,500.00
TAXES	\$ 64.25	\$ 200.00	\$ 121.08	\$ 150.00
TELEPHONE	\$ 8,548.02	\$ 5,200.00	\$ 3,313.87	\$ 4,000.00
TRADE SHOW EXPENSE	\$ 2,842.48	\$ 4,600.00	\$ 30.00	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
TRAINING/EDUCATION (Changed to Education & Information in 2002)	\$ 6,152.58	\$ 46,500.00		
TRAVEL	\$ 6,213.67	\$ 2,500.00	\$ 970.71	\$ 2,250.00
TRUCK/AUTO	+ +,-10101	\$ 500.00	7	-,-00100
WEBSITE (Moved to Education & Information in 2002)	\$ 3,838.00	\$ 2,500.00		
TOTAL EXPENSES	\$ 438,950.05	\$ 453,684.53	\$ 431,081.99	\$ 575,614.25
TOTAL LAI LINGLO	φ 1 00,300.00	φ 1 00,004.00	φ +υ ι,υυ ι.33	φυιυ,U14.20

6



Purified and Certified

It's official!

Orenco's AX20N AdvanTex⁴ Wastewater Trootment System has been certified by NSF International, under Standard 40 for Class I Systems. Advantex is the first packed bed filter ever to pass this testing process.

With effluent averaging 5 mg/L CBOD and 4 mg/L TSS, AdvanTex turns household wastewater into clear, odorless effluent that can be reused for subsurface irrigation. Because AdvanTex is a packed bed tilter, significant treatment begins within

hours of system start up. And AdvarTex provides consistent, reliable treatment, even during "peak flows."

AdvanTex Treatment Systems come as a complete easy-to-install package that's ac compact it fits right on top of its watertight tank. And for peace of mind, AdvanTex also comes with remote telemetry service contract, and three-year warranty.

For more information on our complete line of AdvanTex® Treatment Systems, call Orenco Systems® at 1-800-348-9843.

> AdvanTex* Treatment System AV20N meas the requirements of ANSINSF Standard 40 for Class I Systems



Orenco Systems

Clarging the Way the World Does Watercoate!

1-100-341-9843 www.orenco.com

NOWRA Adopts Code of Ethics

NATIONAL ONSITE WASTEWATER RECYCLING ASSOCIATION CODE OF ETHICS

PREAMBLE

Members of the National Onsite Wastewater Recycling Association (Association) are committed to the highest standards of integrity and professionalism in the onsite wastewater recycling Industry (Industry). They are dedicated to providing quality service, products, education, and research. The members of NOWRA shall uphold this Code of Ethics.

GENERAL OBLIGATIONS

Members shall endeavor to know and understand the local, state/provincial, and national statutes, codes, laws, and regulations applicable to the Industry as well as to their own activities. They shall compete honestly and lawfully, building their businesses through their own skills and merits in the Industry. Members shall avoid any act that might promote their individual interests at the expense of the integrity of the Industry, and avoid conduct that might discredit the Industry or deceive others.

OBLIGATIONS TO OTHERS

Members shall represent themselves and the benefits of the Association faithfully and honestly with integrity and professionalism. They shall convey their credentials, training, experience, and abilities with integrity and pride. Members shall always seek to enhance the reputation of the Industry with others by the way they communicate and interact. Members shall avoid conflicts of interest through disclosure to appropriate parties.

OBLIGATIONS TO PROFESSIONALISM

Members shall strive to maintain and advance their skills and knowledge of the Industry. They will continually seek to improve their own professional expertise by staying informed of scientific and technological developments in the Industry. They shall always seek to advance the integrity of the Industry. Members shall admit and take responsibility for their own errors when proven wrong, and not seek to alter or distort facts in an effort to justify decisions.

Approved by the NOWRA Board of Directors November 21, 2002



8

NOWRA Model Performance Code Update

by Michael Corry, Committee Chair

Corry Changes Employers But Not the Task

The pace of activity in the model code effort has gained momentum in a number of areas due to the hard work of the volunteer subcommittee leaders and the members. To further hasten the process, I have left my job as the Administrator of Wisconsin's Safety and Buildings Division, Department of Commerce, to devote my time to NOWRA and the model code effort. My July decision to change jobs in 2003 foreshadowed the departure of Wisconsin's Thompson/McCallum administration that would have resulted in a job change in any event.

I would like to thank Wisconsin's Department of Commerce for permitting Roman Kaminski and me the opportunity to help develop the model code over the last two years. Leroy Janski and Lynita Docken are other members of the Department who have contributed their time and creative energies to the development of NOWRA. The contribution of staff to national code committees is not entirely a charitable act because the Department recognizes that the existence of good model codes makes the job of adopting and administrating state level codes much easier.

Soils Committee – is responsible for developing the important soil treatment credit tables. The Committee received a grant from the Capacity Development Project to help fund the effort. Jerry Tyler, University of Wisconsin, and Del Mokma, Michigan State University, paid a December visit to their colleagues at the University of Arizona and Extension to learn about onsite wastewater transport and treatment in hot, arid climates. Jerry and Del met with Art Warrick, Jim Walworth and Don Post in Tucson and Kit Farrell-Poe and Charles Sanchez at the University Extension in Yuma. Ed Swanson, Arizona Department of Environmental Quality, also attended the Tucson meeting. When Jerry and the committee are finished with their project, we will have the first nationwide evaluation process for soil treatment capacity and will be able to compare the capacity of soil treatment and pretreatment devices. Guidance Committee – is responsible for developing the document that will assist local and state governments adopting the model code in making informed choices when selecting among the various options for output performance standards and quality assurance programs. Jean Caudill, Ohio Department of Health, is committee chair. The committee, composed of approximately ten members, held a November organizational meeting in Nashville to discuss the scope and direction of the project. Ben Burks, Consolidated Treatment Systems, has drafted a preliminary outline of the document.

Evaluation Committee – is responsible for developing the protocols for evaluating treatment components for listing in the output classification matrix. Fred Bowers, New Jersey Department of Environmental Protection, leads the 12member committee. Fred has developed a prototype program that uses component treatment data and converts it into the categories of the NOWRA output classification matrix. Anish Jantrania, Virginia Department of Health, and Ed Woods, Oregon Department of Environmental Quality, contributed data from their monitoring programs. Carl Thompson of Infiltrator Systems has developed a draft of the component submission document which is under review of the committee at this time. The major issues faced by the committee are the valuation and use of existing data for treatment components and the need to create a national standard(s) for the future evaluation. NOWRA does not intend to enter the business of testing or actual evaluation of treatment technologies but does intend to lead an effort to standardize the evaluation of components and data reporting among the various evaluation agencies.

Model Code Committee – has decided on a schedule of three meetings per year to keep the process moving, while giving the volunteer subcommittees time to do their work. The committee, having developed the components of the output classification matrix, is now working on the proposed code provisions affecting system quality assurance with emphasis on installed system maintenance and

monitoring. The committee meets next on February 27 and 28 in Austin, Texas.

Code Committee Takes a Position on Conflict of Interest

The primary committee, in furtherance of the NOWRA Board's development of a Professional Ethics Statement, adopted a position on conflict of interest between the various classifications of professionals involved in the regulation, design, installation and monitoring of onsite systems. After extensive discussions at the Seattle meeting in May and in Kansas City in September, the primary committee recommended that a serious conflict of interest existed when regulators engage in any activity as provider for which their departments have a regulatory responsibility. The regulator's job is to adopt and enforce codes. If the regulator conducts the site evaluation and selects/ designs the treatment system, he/she has a direct conflict when enforcing the code on the system, especially when requiring the owner to repair a failing system that the regulator designed. The committee intends to insert a provision in the model code to prohibit this form of conflict.

The committee also discussed conflicts between the various classifications of providers. Is it a good business practice to have the soil assessor specify the treatment design? Should the inspecting plumber provide the repairs to correct the problems he/she discovers? Should a system designer specify equipment that is sold by the designer's company? While these practices are common in many industries, the committee felt they should be avoided by professionals if full disclosure of the business relationships is not disclosed to the owner. The committee did not believe that these business relationships are a topic to be regulated through the onsite code.

Model Code Briefings – I had the opportunity to join two NOWRA leaders in making presentations at the December annual conferences for the Indiana and Kentucky onsite associations. NOWRA President Tim Frank and board member Matt Byers made presentations on technical and NOWRA-related topics.

continued on page 10

Model Code Update—

I was invited to brief both organizations on the NOWRA model code effort and, in Kentucky, on Wisconsin's 10-year experience in modernizing the state onsite code. Both Kentucky and Indiana are in the process of updating their codes and the industry—both regulatory and vendor—is struggling with the process.

My observation about updating onsite codes in the absence of an accepted national model code is that each state code evolves along a common slow and painful evolutionary path guided by the unique culture and relationships between the regulatory, research and vendor community within the state. Lessons learned in other states have only a minor effect on the process. The codes, vendor and regulatory capability all mature in stages in a process similar to the human maturation cycle. It does not appear that a state, operating in the current regulatory environment, can skip a developmental stage, any more than the average child can skip the turmoil of the middle school years. The key external influences—like a national model code, guidance from EPA and published research—can only hasten the maturation process.

Several speakers in both Kentucky and Indiana alluded to the onsite maturation process and urged the combined regulatory, research and vendor communities to work as a team in improving both the code and the quality of service delivered to the public.

NEXT MODEL CODE COMMITTEE MEETING DATE: FEBRUARY 27 & 28, 2003 AUSTIN MARRIOTT NORTH

2600 LaFrontera Blvd., Round Rock, Texas (IH 35 Exit 251)



NOWRA MODEL PERFORMANCE CODE SPONSORSHIP PROGRAM

The work to produce the Model Performance Code is currently supported through private donors, limited EPA and NDWRDCP funding. In 2003, this work load will increase and additional financial resources will be needed. NOWRA members can make a special donation to the MODEL PERFORMANCE CODE, by following the easy steps listed below.

- 1. Completely fill in the information on the form below, and sign your name representing the donor organization.
- 2. Identify the amount to be donated, and designate it to "The Model Performance Code Education Fund."

Name			
Organization (if applicable)			
Address			
			StateZip
Amount to be donated: ☐ Visa ☐ MasterCard ☐ Disc	•	enclosed check	request invoice credit card
Credit Card Number		Expiration Date	
Name on Card		Signature (required)	
Other organization contacts			
Do you want to be included on t	he list for meeting notices	s and undates? □ Ves	□ No

...On the Legislative Front...

SPOTLIGHT ON CALIFORNIA—

A Proactive Program to Integrate a Legislative Agenda with Membership Building

Two of the most important issues and messages state groups and NOWRA leaders continually face are how to build an effective membership base, and make state policy officials aware of their organizations legislative needs. Plainly stated by one of NOWRA's state presidents during last month's meeting—"we just can't seem to get the attention of the State legislators to recognize the issues facing the onsite industry." Other state presidents report about the challenges to building their membership roles, with many of their colleagues questioning the need to become involved by asking "what are you—or NOWRA—doing for me to address the legislative and regulatory issues that affect my business?" In many ways, this whole scenario is a "catch-22." Some state groups have limited or no financial resources to focus on legislative lobbying, while others make it their "primary mission" and hire professional lobbyists to make certain that the policy officials know about the interests and needs of the onsite industry. The bottom line—all of NOWRA's members need to work together and build both of these efforts because both of these efforts are critical to the interests of the industry!

"It's an awesome challenge," says
COWA president, Pete Lescure, "but not
unattainable. We had a mission and a
desperate need to solve a major problem,
so we examined the best course of action
that allowed us to have a significant role
on future legislation in California that
would affect us as business owners. It
also provided us with a unique opportunity to educate state regulators about the
new technology, and to build our membership base." This action plan during
the past year (2002) became COWA's

continued on page 12

KEY STEPS TO MEMBERSHIP & COALITION BUILDING AND EDUCATING PUBLIC OFFICIALS

- **1.** If none exists, identify natural leaders in the onsite industry—they need to start the state or local organization. Get all segments involved early—including regulators. It helps to have a hot issue—talk it up.
- **2.** A key component is coalition building—builders and realtors are important political players in the process. Find out what they need in a code and see if it can be rolled into a package. It is better to have them on your side than against the initiative. Reasonable ideas attract more support than unreasonable proposals. If you can't get the whole thing (goal) take a strategic bite. Team up with related associations—pumpers, installers, well drillers, soil evaluators, and academics. New groups to include are folks involved in storm water management.
- **3.** Identify the issues affecting the onsite industry in your area and the impacts—work with the coalition to develop a draft strategy to resolve them, that includes an education component.
- **4.** Learn the names and relevant information about the state or local regulator(s), or council member(s) who is responsible for onsite codes and regulations, and their role in these matters (and, find out the name of the key staff person to whom you will have to introduce yourself in order to make contact with the person). Comment: the state regulators should be part of the onsite association. Get them into the association to create a "we" solution set as opposed to a "we-they" conflict.
- **5.** Remember, regulators and politicians prefer dealing with Associations more than individuals—unless the individual is a constituent or a friend (so make the acquaintance of your local legislator). Consensus on issues is easier to reach and implement than with a mob of individuals all pointed in different directions.
- **6.** Consider hiring a lobbyist—they are expensive but they are worth their weight in gold—especially if the organization can focus on some narrow issues. A good first issue is certification and mandatory continuing education—almost everyone likes certification. Continuing education is a strategic action tool to get people involved and raise Association funds.
- **7.** Schedule a meeting with local news reporters to introduce yourself (and NOWRA's work). Help to educate them about the important role of the onsite industry in protecting water quality in the area.
- **8.** Schedule a meeting first with the appropriate legislative staff person and provide information about NOWRA and its work in the onsite industry (the NOWRA office can provide new brochures and information). Define the critical issues affecting the onsite industry in your area/state, how they are affecting the business of members, and offer a way to help resolve them. Then schedule a meeting with the legislator to present the case and action plan—pledging NOWRA's support, if he/she will become the public advocate.
- **9.** Organize and sponsor a 1-day work session (with NOWRA headquarters' support) about the basics of onsite systems—inviting key legislators, business people (chamber of commerce), the media, realtors, developers, environmental groups, league of women voters. Incorporate membership into the registration fee.
- **10.** Publicize the program—sending out press releases or taking a small ad in the local newspaper—providing contacts in order to obtain additional information.
- 11. Hold the event, and acknowledge supporting roles of the legislator.
- **12.** Publicize your achievements—short articles, accompanied with photos and great graphics, about how the work improves water quality. P.S. Don't forget to mention NOWRA's website!

...On the Legislative Front...

sole focus, in working on the "California On-site Wastewater Treatment Systems Regulations (AB885)." Throughout the year, COWA sponsored and conducted workshops where members could learn more about the bill's overall effects to the industry, and allow them to voice their ideas and express concerns. It was a unique process that required proactive communication steps to contact members and non-members within the onsite industry, educating state policy and regulatory staff, and at the same time, increasing the membership ranks nearly two-fold. After each of the work sessions on AB885, COWA's Board of Directors would then reconvene for a weekend retreat to "hammer out COWA's position" representing the onsite industry.

The work sessions about regulations focused on discussions about whether the regulations were meeting the legislative mandates, how they were being organized, the appropriate level of detail and to what levels of treatment and management should be established. Participants registering for the workshops were encouraged to become COWA members through a higher registration fee—that included voting rights on a COWA position paper. This process has now enabled COWA to organize their first conference, scheduled to occur May 1 & 2 in Sacramento. Core topics of the conference will focus on-Tomorrow's Technologies Under Today's Rules, Verifying Technology Performance, Quality Assurance—Getting It Right, and Management.



REPORT ON PROPOSED REVISIONS TO CHAPTER 62-640, F.A.C.

On November 21, 2002, the Florida Department of Environmental Protection conducted a workshop to develop rules and possibly, implementation dates relating to the land application of Class B biosolids. This was one of three meetings. There will be two more meetings, one in Tampa and another in West Palm. These meetings will be scheduled and announced at a later date.

The meeting was chaired by Richard Drew, Chief of Water and Wastewater for the DEP. Maurice Barker from that division is collecting input. His email is: maurice.barker@dep.state.fl.us.

The meeting was held as a result of complaints made to various DEP offices, news articles of problem areas and national media attention on the land application of biosolids.

There was a preponderance of complaints of objectionable odors as well as accusations of illnesses created by the land spreading of biosolids in Desoto County. There were numerous speakers relaying pictures and other evidence of untreated or, at the least, improperly treated waste. The individuals were accusing the larger waste transporters of improper land spreading practices. The individuals were stating their dissatisfaction with the DEP, the DOH, and the DOT for failure to enforce the various regulations that are supposedly in place to protect the environment and their property values.

In addition to a strong contingent of individuals from Desoto County, there was the chairman of Desoto County Commissioners representing the BCC, stating it is their intent to put a stop to

the land application of biosolids in their county. They had already enacted an ordinance to prohibit land application but it was struck down by a federal judge. They are in the process of creating another ordinance basically requiring the sludge to meet a Class A standard. Other counties represented that supported Class A biosolids were: Glades, Hendry, Hardee, Okeechobee and St. Lucie.

On the other side of the issue, representatives from Gainesville Regional Utilities, Palm Beach County, Synagro and American Water Works spoke in favor of relying on science to make Class B the most efficient and economical use of biosolids. Other points raised were the differences between biosolids and septic waste and raw sewage. Proper treatment and spreading practices will not create problems. The issues are compliance, enforcement and training. The chairman of biosolids for the Florida Water Federation called for: compliance and enforcement of rules and laws, not enacting rules without enforcement, and not confusing septic wastes with biosolids.

For the most part, septic tank waste, portable toilet waste, and food establishment wastes were not specifically addressed. There were references made to the fact that material found on the ground of several sites would lead one to believe that municipal sludge was not the generator of the material. The DOH had a representative at the meeting as an observer.



...On the Legislative Front...

HOPES OF NEW HSTS LEGISLATION IN OHIO

The Ohio Onsite Wastewater Association (OOWA) is staying involved with the recently renewed effort to establish basic Household Sewage Treatment System (HSTS) legislation in Ohio. Representative Tom Niehaus has developed draft legislation and is making a serious effort to gain a high level of consensus prior to introducing a bill. OOWA had a seat at the table for an Ohio Department of Health Ad Hoc Sewage Advisory Committee meeting held in August 2002, with Representative Niehaus using this meeting to gather broad stakeholder input.

OOWA has sent letters of support and recommendations on this draft legislation and the OOWA President-elect, Rick Novickis, has met with Representative Niehaus at his office. OOWA President, Conall Stapleton, who lives in Representative Niehaus's district, arranged for a TV news brief on Cincinnati's Channel 12 and included Representative Niehaus in this opportunity to explain the need for legislation and subsequent rule revision. OOWA sees this basic legislation as necessary to provide a foundation for future legislation to support the long term goal of statewide contractor certification.

It is expected that Household Sewage Treatment System (HSTS) legislation will be introduced in the 125th Ohio General Assembly in early 2003. If you have any questions concerning OOWA or this HSTS legislative effort, contact Communications Chair, Jean Caudill, at 614-644-7181 or jcaudill@gw.odh.state.oh.us.

AN EXPLANATION

Due to the time needed to produce NOWRA's new Membership, Products and Services Directory—together with the end-of-year membership billing and office move—we combined Onsite Journal issues Nov./Dec. and Jan./Feb. We will catch up this month and make adjustments to our advertisers.





National Onsite Wastewater Recycling Association 2003 Technical Education Program

Education and Training ensure that consistency about the value and the need for properly designed and maintained onsite wastewater treatment systems is achieved to protect and enhance water quality. NOWRA's mission is to educate and inform its members and the public about the most current technologies and methods to achieve water quality excellence using onsite wastewater treatment and recycling.

NOWRA'S ROLE—Fulfilling a Vital Education Need

For years, traditional septic systems have had a reputation of having a limited life span, and were often associated with inadequate or failing treatment technology. These opinions resulted from several significant factors. First, and foremost, installing septic systems in urban areas was viewed as a temporary solution to the wastewater infrastructure, until municipal or public sewer connections became available. Ensuring that owners of these systems were provided with education about a proper maintenance program or operations was not a high priority. Similarly, regulations requiring that effective long-term treatment technology be used, and that installation procedures were inspected, were not major concerns of public officials. As a result, many of the perceptions that exist today about onsite systems and treatment technology are still associated with the use of yesterday's older septic tanks that frequently affected groundwater pollution.

In the 1990s, public officials in cities and municipalities throughout the U.S. began to realize that municipal wastewater treatment plants and older forms of dispersal systems cannot provide the needed capacity requested by every home site, business, or commercial center. The reasons these conditions exist are the costs to expand existing municipal facilities and the inability to address the differences in the soils in various areas. As a result, the use of onsite wastewater treatment systems in the 21st century is extensively accepted as an effective solution to the challenges associated with unfavorable soil conditions.

KEY FACTS

- Over 25-30% of the residential population throughout the U.S., today uses onsite systems for wastewater treatment.
- Nearly 40% of all new U.S. home construction now uses some form of onsite system.
- Due to the huge demands placed on existing municipal wastewater treatment systems to eliminate or treat extraneous wet weather flows, it is anticipated that the percentage of onsite systems associated with new construction will significantly increase throughout the decade.

The Education and Training programs have been developed and conducted exclusively by NOWRA educators, researchers and leaders who are recognized for their national expertise and skills within the onsite industry. In addition, industry members representing a significant group of manufacturers and distributors also participate in these sessions to provide additional technical expertise and answer questions about the operation of certain equipment. Because of these credentials, certificates of course completion issued to NOWRA program participants are accepted and can be applied to the professional continuing education requirements in various states. NOWRA's programs, as described below, are offered either as educational sessions or specialty workshops. These programs are adaptable to meet the legal and code requirements of the various states and of the technologies that work within the specific geographic area.

NOWRA SPECIALITY WORKSHOPS

A New Paradigm For Onsite Systems—Integrating Planning and Management into Local and Regional Planning

This comprehensive one-day session focuses on one of the leading and emerging activities in the onsite industry—how to manage the newer technologies for onsite systems, as prescribed by the EPA guidelines. It dispels the aged views and myths about older septic tanks with vital information on the highly successful technology used in the newer onsite system. Most of all, this session answers the essential questions as to how to effectively manage large numbers of onsite treatment systems and thus achieve an overall goal of water quality protection.

WHO Should Attend?

Private and public sector planners, regulators, public and elected officials, and public health and water resource management specialists involved in the planning, location and management of onsite wastewater treatment systems.

What You Learn

Organization prescribed in EPA's Voluntary Management Guidelines and developing plans for management and utility districts. Highlights:

- An Overview of the New Technology in the Onsite Industry
- Interfacing Management Procedures of Onsite Systems with Land Use Planning
- Developing a Business Plan for Managing Numerous Onsite Systems
- Case Studies of Local Monitoring and Tracking Programs with Private Maintenance Companies
 - A Public Management Entity with Homeowner-Owned Systems
 - Public Management with Operator Permits
 - Publicly Owned Management Entity
 - A Unique Public Management Entity
 - A Quasi-Private Management
 Entity—Operation of a Regulated
 (Private) Management Entity

Onsite Cluster Systems and Technology—The Infrastructure Solution for Small and Rural Communities and Sensitive Environmental Sites A One-Day Specialty Workshop

This workshop focuses on one of the most important approaches to the future of communities and the wastewater infrastructure.

What You Learn

A comprehensive introduction of Cluster Systems and their Technology—their relationship to gravity systems, design and management considerations. Using the EPA Design Manual, cluster system technology and its applications illustrate their effectiveness in sensitive environmental conditions. It addresses the core areas of Regulating, Managing and Permitting, and Owning Onsite Cluster Systems, through the presentation of case studies. Special attention is given to understanding how to integrate onsite cluster systems with land use planning, "smart growth principles" and desired open space.

Workshop Topics include:

- Effective Use of Cluster Systems
- EPA Management Guidelines
- EPA Design Manual Principles
- Cluster System Challenges
- Sanitary Permits and Storm Water Regulations
- A Regulator's Perspective on Cluster Systems
- Case Studies
- Political Challenges, Public Barriers and Funding.

Drip Distribution Systems for Wastewater Recycling

A "hands-on" education and training forum designed to advance the knowledge about the value of onsite drip dispersal systems and water quality protection, and the needed expertise to make them work!

What You Learn

■ HOW Onsite Drip Dispersal Systems solve community and individual needs for effective wastewater treatment facilities located in outlying and

- sensitive environmental areas (endangered and threatened streams where point discharges are unavailable); onsite systems also provide affordable answers.
- WHY Drip Dispersal Systems are rapidly achieving acceptance as one of the more advanced treatment methods of wastewater.
- WHERE Drip Dispersal Systems have demonstrated proven capabilities in providing the greatest flexibility for managing complex soil and environmentally sensitive site conditions, as well as addressing other limitations associated with traditional wastewater treatment discharges.
- ABOUT the high tech automated processes, designed to ensure that proper preventive maintenance occurs on a regular basis for effective Drip Dispersal Systems.

This two-day workshop concentrates on the latest technology in drip dispersal used for large onsite or decentralized wastewater systems.

DAY 1

Drip Distribution Systems Overview—defines the various systems, answers the basic questions about drip distribution, presents the core principles, system components, and presents a typical layout.

Designing at the Boundaries—identifies the appropriate wastewater loadings and other relevant information, such as boundary conditions.

Soils Characteristics and Site Conditions—preferred loocations and soil profile characteristics necessary for a quality design, in the context of understanding effluent quality, loading rates, and soil morphology.

Drip Distribution Design Concepts—when to use these systems, the most appropriate applications, and how drip distribution is better suited than other land application systems.

Regulations Affecting Onsite Systems—addresses the various approaches of state and local regulations for onsite designs—what's good—what's needed.

DAY 2

Construction and Start-up—guidance for a drip distribution system, the types of equipment needed and issues affecting start-up procedures.

Operation and Maintenance—routine procedures, emergency operations, controllers and monitoring (meters, gauges, alarms, data logging, and telemetry).

A four-hour field trip concludes the session.

12.0 CEU credits are issued as a certificate at the end of the session.

Developers, Real Estate Industry Education Workshop

This unique half- or one-day session provides an excellent overview for the building and realty industry on the many topics relating to onsite wastewater treatment, and why decentralized systems provide the solutions to tomorrow's wastewater infrastructure.

What You Learn

Concise presentations by NOWRA experts explain soil absorption systems and the highly important advances achieved over the past decade in both technology and management. This session covers everything from the basics of onsite wastewater treatment, such as the traditional septic tank, through the most advanced mound and drip irrigation systems, to the use of clusters for communities and sensitive environmental areas. However, since most onsite systems today use soils as the final method of dispersal, and much of the cost of the system depends on the soils, this topic receives special attention.

From the perspective of property owners, and sellers, participants are informed about the process of an onsite wastewater system inspection and how they are evaluated for loan transactions. The result of the time spent in this session is a significantly broader understanding about what to expect during the operation and performance of onsite systems—and especially, how to avoid costly surprises.

continued on page 16

NOWRA 2003 EDUCATION PROGRAMS

NOWRA's education programs are fully developed and ready to be conducted upon request.

Please call either the headquarters office at 1-800-966-2942

or contact the Education Chairpersons:

203/866-3006

Jim Converse (jcconver@facstaff.wisc.edu)
608/262-1106
and
Peggy Minnis (mmminnis@aol.com)





Water & Wastewater Systems Specialists

6 South Fourth Street P.O. Box 32 Reading, P6 19603 ph: 410.070 4567 to 610.070,7557 800 Horth Centre Street P.O. Ecx 389 Pottselle, Pd 17461 ph 570 488 5847 fc: 570 488 5847

www.entecheng.com







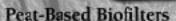
Premier Tech Environment

The convenience of a one-stop shop for turn-key solutions.



Our reputation is based on the performance and the reliability of our products and our unequaled service, before during and throughout the life of the septic installation.

In addition, we give our local partners total support and service in order to help increase the success of their businesses.





EFT-080 8" Fiftuent Filter



High Performance Septic Tank



Premier Tech

37 Evergreen Drive
Portland, Maine 04103
1-877-295-5763
fax 1-877-436-3896
Upte@premenech.com
www.premiertech.com



Tank Adapter



Filter Container

Ride or Get Run Over

The utility "train" is coming, and pumpers and installers have a clear and simple choice to make, says Delta Environmental's Brenda Guy

by Ted J. Rulseh

Prenda Guy wishes she knew what it would take to persuade members of the onsite industry to get involved on the issue of using utilities—or "responsible management entities" (RMEs)—to install and maintain treatment systems.

Unless the industry gets involved, Guy believes, utilities in some areas will gain monopoly control over onsite systems, to the detriment of private service contractors, treatment system manufacturers, and homeowners alike. Rural electric cooperatives and other established utilities in some parts of the country have openly expressed interest in entering the onsite treatment business.

Guy is owner and president of Delta Environmental Products, Inc., based in Denim Springs, La. The company, founded in 1985, is dedicated to the research, development, marketing and sales of onsite wastewater treatment equipment for residential and commercial uses.

Among her industry activities, Guy serves as a board member of the National Onsite Wastewater Recycling Association (NOWRA) and as chairperson of the National Sanitation Foundation (NSF International) Certification Council. Guy presented her viewpoints on RMEs in a panel discussion at last September's NOWRA 2002 annual conference in Kansas City. In this *Pumper* interview, she expands on her comments.

Pumper: Based on your interactions, how would you characterize the attitude of established utilities toward the onsite industry?

Guy: In my private conversations with utility representatives, it saddens and surprises me that they are so completely intractable in their attitudes. I would like to see our industry—including the utility

industry—engage in dialogue toward changing the way we approach the problem of managing onsite systems. Each player in this debate will have to give in order to make this a successful venture. *Pumper:* What do you mean when you

Pumper: What do you mean when you say that utility representatives are intractable?

Guy: Utilities in my observation are reluctant to change the way they do business. They are the big boys on the block. They are coming from the outside, wanting

"I think management entities are

a good thing. I am in favor of

management standards. But I am

not in favor of having the utility

industry overrun the well estab-

lished decentralized wastewater

industry to accomplish the goal.

We have to allow all players in this

industry to have the right to

become RMEs if they want to,

so long as they are qualified."

to play in an industry where they have no real experience, yet they are coming in a dictatorial fashion. I believe that if they are going to move into this arena, they need to be inclusive of the opinions of manufacturers, installers, pumpers, and all the other groups that are

stakeholders in the decentralized treatment industry today. If they took an inclusive approach, they would get a lot more cooperation from the industry. Without such an approach, what I fear will happen is that each of the stakeholder groups will engage with their various Congressional representatives in a way that will stymie any progress toward management entities. *Pumper:* What is your opinion on the merit of RMEs in certain situations, as in Levels 4 and 5 of the EPA's Voluntary Guidelines?

Guy: I think management entities are a good thing. I am in favor of management standards. But I am not in favor of having the utility industry overrun the well established decentralized wastewater

industry to accomplish the goal. We have to allow all players in this industry to have the right to become RMEs if they want to, so long as they are qualified. We must structure a framework that will allow that to happen and let the free market economy determine who is successful.

Pumper: In general terms, how do you think that can be accomplished?

Guy: First, the definition of an RME needs to be clarified. We need to write the definition in such a way that everyone

who is qualified has equal access to becoming that entity. If ABC Company wants to become an RME, they should have just as much access to that opportunity as an established electric utility.

The definition must not be written in such a way that ABC company cannot become a

RME because some rule creates a hoop that is too big to jump through. The rules should be structured so that they are not slanted toward big business. They should be equally applied. Then, let the free marketplace work.

Let homeowners decide who they want coming into their back yards to service their onsite systems. ABC Company may be able to provide that homeowner with equal or better service than an electric utility, and at a cheaper price. As a homeowner, I should be able to decide if I want my utility company to do the work, or if I want ABC Company to do it.

Pumper: Why do you think entities like rural electric cooperatives are so interested in the onsite industry?

Guy: The utilities provide electricity. That is what they care about. I think they see the onsite industry as a means to providing electric service to more outlying areas. It is a vehicle by which they will be able to get more meters—more paying customers. That's all it is for them.

In rural areas that are yet to be developed, the linchpin is how to treat the wastewater from these new homes. Municipalities are no longer able to provide service to those areas. The utilities want to see land developers buy into the management standards that the EPA is proposing. In return for that buy-in, developers will receive funding to get these wastewater systems in place, thereby allowing them to build homeowner communities,

Interest in the onsite industry is not limited to small electric cooperatives. For example, the Tennessee Valley Authority, one of the largest utilities in the nation, is very much interested. They are developing a drip system standard that they plan to showcase at the next NOWRA conference. They plan to get that standard

which in turn, for the electric co-op,

means paying customers.

implemented to facilitate the creation of new electric customers. What will happen, an eventual outcome, is that once one large utility has a standard, the others will start to adopt it.

Pumper: From a practical perspective, what's wrong with having onsite systems in these rural communities managed by electric utilities?

Guy: There is nothing wrong with the concept of management entities, but the control of the management function by utility monopolies would have negative consequences for the onsite industry as it exists today.

The federal government and state governments want to see management of onsite systems. So does the manufacturing community. What I fear is that because of the way utilities currently do business, they will standardize on one or two products. That will put the other manufacturers out of the loop, and the ultimate result will be a stifling of research and development into new and better ways to treat wastewater. Technology advancement requires viable businesses

who can do this kind of research.

Furthermore, the Model Performance Code that is being developed by NOWRA acknowledges that you can have different soil conditions from house to house. It's

"Let homeowners decide who they want coming into their back yards to service their onsite systems. ABC Company may be able to provide that homeowner with equal or better service than an electric utility, and at a cheaper price. As a homeowner, I should be able to decide if I want my utility company to do the work, or if I want ABC Company to do it."

going to be very hard for a utility to standardize on any one type of product when the soil conditions at a given site should dictate what is used there. And ultimately, where the choice of a system is concerned, the homeowner should be able to say yea or nay.

Pumper: There are those who say utility management will not hurt installers or pumpers because utilities will subcontract those services to existing businesses,

"The installer community, the pumper community, the hauler community, are all somewhat in a state of denial about what is going to happen to them. It will be too late, once they finally realize that something has happened, to do anything about it."

rather than provide them directly. What is your response to that argument?

Guy: If you look at the utility industry historically, if you look at line management, pole management and other functions, they have tended to prefer having direct employees rather than subcontractors. It may well be that the decentralized wastewater industry is so large, and the locations are so varied, that utilities will find it cost-prohibitive to have direct employees do the work. It may well be that because of the nature of the industry, it will be more conducive for them to subcontract the work to pumpers and installers. But

the reality is that nobody has had that discussion from a national perspective.

Pumper: From what you observe, how well are pumpers, installers and other service providers prepared to deal with the

coming of management entities? *Guy:* The installer community, the pumper community, the hauler community, are all somewhat in a state of denial about what is going to happen to them. It will be too late, once they finally realize that something has happened, to do anything about it. There is a train coming down the track. You can

people will either be run over by it, or they will ride it.

Pumper: How can members of the

onsite industry respond effectively

see the lights in the distance. And

to these changes? *Guy:* Members of the industry need to become very active. The utilities are highly organized and very well funded. They have resources that we can't imagine. In order for the members of the onsite industry to protect themselves and be meaningful players, they have to become organized.

Pumpers, installers, and haulers need to partner. They are the heart and soul of this industry. They are the people who get

out there and do the work in all kinds of weather. They respond to customer needs. Most of them are really good and very diligent people who care about the industry. These groups need to come together and say to the EPA and the utility industry: "We're not going to be run over. We want you to be inclusive. We want you to recognize our contributions to this industry. We want you to recognize our expertise and make us equal players at the table in this debate."

The pumpers, installers and haulers need to put aside their differences and realize that they have a common goal to work toward for the good of an entire industry. They will create a huge, grassroots force of opinion and expertise. The politicians care about the vote, and the members of the industry need to understand that. They need to start talking to their local politicians and to their representatives in Congress, and they need to do it in a very organized, articulate way.

Reprinted by permission of *Pumper*

Another Member Opinion about RMEs—

Reactions to the RME Roundtable Discussion at NOWRA's 2002 Annual Conference

by Ralph Macchio

What came as a surprise to me was that many of the NOWRA practitioners' and manufacturers' concerns regarding Levels 4 and 5 (of the utility management concept) were similar to those of NAWT and the pumpers.

It seems very clear how creativity and innovation can become stifled when customer choice and competition is replaced with uniformity for the sake of financial efficiency and control, as might be the case with utility type operations.

Most of the panel agreed that there is much to be done with regard to technology, standards, record keeping, data and public education for "onsite systems"—most of which is now done by small to mid-sized manufacturers and maintenance companies. All agreed that the guidelines are a step in the right direction and will go forward on their own momentum—except for levels 4 and 5, which produced controversy.

The roundtable discussion did allow for diverse persons to express their views. The problems seemed well defined, as illustrated in the first round of "after thoughts"; however, solutions seemed harder to find.

Manufacturing technology, operation and maintenance coupled with ultimate disposal of waste produced from "onsite" systems represent a mix to be put together to allow existing practitioners to be participating parties. Perhaps joint ventures of these diverse groups would be a place to start.

The challenges are out there—and the opportunities are great. These are exciting times in the onsite business.

BECOMING A NOWRA STATE ASSOCIATION OR CONSTITUENT GROUP

—What are the Steps Involved and How Do You Start?

In the 21st century, in wastewater infrastructure planning, more recognition than ever before will be focused on NOWRA and its affiliate state groups to ensure that properly designed, installed and maintained onsite sewage treatment and disposal systems are the most cost-effective and efficient means of water quality management. This recognition is being accomplished through effective education and training, and the development of performance standards and sound ecological practices—the essential steps in the work carried out by NOWRA and its constituent group members. These activities illustrate the leadership role that NOWRA members play-working as partners, with open doors of communication, they promote the principles and programs on both the national and local levels.

Building NOWRA membership is a highly important goal that occurs primarily through the states. To provide the direction and guidance to achieve this mission, NOWRA has a Constituent Group Leadership Manual that is available to interested parties. The Manual identifies the basic steps necessary to start or form a Constituent Group of the National Onsite Wastewater Recycling Association, Inc. (NOWRA). It builds upon the work of NOWRA's founders who, in 1991, established an association to represent and serve all aspects of the onsite wastewater industry, that includes installers, field practitioners (inspectors), suppliers, distributors, engineers, research professionals, consultants, educators, governmental regulatory personnel and manufacturers. Excerpts

of the updated Manual are provided for this article and the complete document can be obtained from NOWRA headquarters office by calling 1-800-966-2942.

What is a NOWRA Constituent Group?

It is an autonomous group within a specific geographic area, who have organized to function as a legal entity with the same purpose and objectives as the national association—to advance and promote the onsite wastewater industry. The difference is that this group has the ability to provide a more frequent and active educational/social forum between onsite industry professionals. At this level, constituent group members meet to exchange experiences, ideas and knowledge with a group of local peers on a more regular basis.

Forming A State Group

The first step is to obtain a commitment from potential members to financially support this new entity and its mission. In order to emphasize the benefits of joining a state group, you need to define the proposed group's mission statement, goals and objectives. Often, a small group of individuals assume the role of an "organizational or steering committee" to develop a mailing list of potential members and organize the first meeting. A survey included with the initial invitation helps to identify some of the local issues to be discussed at the organizational meeting and facilitates framing the groups mission and strategic plan.

One of the more successful strategies in forming state groups is through the use

of an education and training workshop—where NOWRA education leaders provide needed expertise and skills, and CEU credits are issued. The headquarters office, or Education Chairperson Jim Converse, can assist in developing this program. The most recent example of a state group using this strategy is Pennsylvania—they started with 6 people and gained a membership group of 106.

At the first meeting of prospective members, NOWRA's programs and benefits are introduced, together with a proposed dues structure that recommends and allows for constituent group members to be affiliated with the national association. (Refer to NOWRA's dues billing policy so you are aware of when these dues are to be paid and how to add new members during the year.) At this meeting, commitment forms are distributed in order to obtain a more permanent commitment for dues payments. At this meeting, officers are elected, or at least a temporary organizational team is appointed, to develop the bylaws and attend to the administrative tasks to register the group with the state or province and IRS (or Canadian authority). After a determination of the available revenues for the year is made, it is then easier to design a financial forecast of projected revenue and expenses for the upcoming yearthat eventually becomes the organization's format for an annual operating budget.

Legal & Administrative Actions

- 1. As a legal entity, the constituent group must obtain a tax identification number from the IRS (USA only). This information is then used to open a bank account and for other documents required. You may request a "Form SS-4" either by telephone or fax. With a fax, the information is normally received within days.
- 2. To charter the organization within your state of operation, contact the Secretary of State's office for the necessary applications as a 501(3) or (6) entity. In chartering the organization, the advantage and disadvantages of incorporation must be considered.

Although somewhat more complicated and expensive, incorporating tends to limit the scope of liability to the corporation as a legal body.

- 3. The organizing committee of the constituent group is responsible for filing all appropriate non-profit income tax returns with all federal, state and local agencies. There are some disadvantages to the tax exemption status, such as eligibility for membership, sources of revenue, and amounts and kinds of business activities. Make sure you are familiar with the type of activities you may and may not engage in as a non-profit organization.
- 4. The basic framework of an association requires identifying the rules of authority in order for decisions to be made. Such basic rules are known as the constitution, bylaws, or both, and are combined with a mission statement to clearly state the intent of the organization.
- 5. Bylaws are the legal tools to build the foundation of the association, with the following sections commonly used to create this document.
- The organization's name
- The association's goals and objectives
- Description of general, honorary and other types of membership
- Membership dues, responsibilities and privileges with a membership
- General and Board of Directors meetings; how and when they are held
- Board of Directors' responsibilities and functions
- Members of Board of Directors
- · Officers of the association
- Committees, their functions, roles and responsibilities
- Fiscal accountability and auditing procedures
- Procedures to change or amend the bylaws

Meetings

Board of Directors meetings are held at least quarterly to summarize activities/ concerns and to plan for the next quarter. A financial summary of all accounts is presented for review and approval.

The last meeting of the year should recognize outgoing officers and elect new officers. All meetings are documented by the secretary. Minutes of all board meetings and quarterly financial reports are sent to all board members, and often mailed to the whole membership.

A general meeting should be held at least once a year to invite the general membership to make comments on the activities/ action of the Board for that calendar year and to elect new directors. Again, all major comments and decisions should be documented and distributed to the membership, along with an annual financial report. This meeting is an excellent opportunity to recruit future leaders and brainstorm new ideas, programs and events.

Annual Program Goals

The Board of Directors conducts an annual strategic planning meeting to brainstorm ideas for association activities and programs. Once the activities have been defined, persons responsible for implementing them and establishing a timetable for completion of the activities—along with approval of any necessary funding—are assigned.

Member Communication

One of the best ways to communicate with members is through a regular newsletter. You might include meeting information, a calendar of future events, news of members, news of the organization's activities and progress, spotlight on individual members, and articles of technical interest and education. To help fund the cost of the newsletter, you may wish to accept advertising. The newsletter is also an excellent tool to use for soliciting new members.

Are You a Member?

NOWRA headquarters now has new brochures and materials available for organizing a State Constituent Group. Don't hesitate to call—we need your group involved as we move forward with the important work within the onsite industry.

.....State Group Happenings.....

California

California Onsite Wastewater Association

Special NOTE: COWA's "Western Onsite Wastewater Exhibition and Technical Conference" has been changed from February 5 and 6 to May 1 and 2.

Starting the New Year is always exciting. We enter it with our New Year's Resolutions and the feeling that we have a clean slate. We also begin with the hope that we can accomplish all of our "needs" and some of our "wants."

COWA heads into the new year with some continuing commitments from 2002 and also some goals for 2003. The big news in California is the awaited "California Onsite Wastewater Treatment Systems Regulations." The draft process with the State has been delayed and extended. A "final draft" was presented for consideration and after committee meetings and a COWA General Membership meeting, was found wanting. The largest complaints were that the draft regulations did not meet all of the legislative requirements, were not organized clearly and had not addressed many of the issues raised by the Stakeholder Committee. The result was the organization of a small stakeholder committee to draft a set of regulations, for presentation to the State, that will satisfy the legislative requirements and address the stakeholder concerns in an acceptable manner. The new draft regulations will be a major part of the discussions at COWA's "Western Onsite Wastewater Exhibition and Technical Conference" to be held in Sacramento on May 1 and 2, 2003. Please note that this is a change from the original dates of February 5 and 6.

In 2003 there will be an increasing need for education, training and certification of all those involved in the design, manufacture, installation, maintenance, management and monitoring of onsite wastewater systems. COWA has made a commitment to be a leader in the delivery of such programs that will satisfy this demand. This need is brought on by new regulations, new technology and the growing understanding of the need for long-term management, maintenance and monitoring.

Cliff Trammel, Executive Director

Florida

Florida Onsite Wastewater Association

FOWA's legislative committee reported to the board that its PAC in its first year contributed to eleven candidates. Ten of the eleven candidates are now either representatives or senators to the Florida House. Also, the board approved the agenda for the upcoming legislative session which will start in March 2003. Two issues, fees collected from permits to fund training center grants and language in the state statutes regarding the licensing of portable restroom operators, are at the forefront of Florida's 2003 legislative session. The committee will address language in the state statutes that MANDATE connection to central sewer WHEN it becomes available. Florida's development law requires central sewers in all but the rural areas. As density increases, central sewers are required. There currently is no consideration given to performance-based (engineered) systems with maintenance agreements. We will need a lot of help on this because we will run against the likes of: The League of Cities, State Association of County Commissioners, the engineering community, and the Underground Utility Association. Additionally, we will monitor The Florida Department of Environmental Protection's workshops on changing the rules regarding land spreading biosolids. We have just been made aware of the State's starting to write rules requiring biosolids to be at least Class A before land application.

Michigan

Michigan Onsite Wastewater Recycling Association (MOWRA)

MOWRA would like to congratulate and welcome the incoming officers for 2003 and 2004 (biannual election): President – William Gregory, President Elect – Dan Milan, Vice President – Bruce Gruner and Secretary/Treasurer – Mike Stephens. One of the priorities for this incoming group will be to help establish a system for advancing and recognizing the professionalism of individuals/entities within the onsite industry across the state. The hope is to build off of the training program for onsite wastewater

practitioners that is being developed cooperatively between the Consortium of Institutes for Decentralized Wastewater Treatment and NOWRA. What a great benefit something like this can be to state groups such as MOWRA. We anxiously await a final product from which to build on.

Jon Morrison, MOWRA President

Minnesota

The Minnesota Professional Organization of Wastewater Recycling

(MPOWR) has been organized as a state chapter of the National Onsite Wastewater Recycling Association (NOWRA). MPOWR is scheduled to hold its charter meeting on March 7, 2003, at the Radisson Suite Hotel in St. Cloud, Minnesota.

MPOWR Mission:

Provide vision and leadership for the empowerment of all professionals and businesses engaged in the wastewater recycling industry in Minnesota while adhering to the core values of protecting consumer rights and enhancing both the environment and public health.

MPOWR Vision:

The foremost wastewater recycling industry advocate in Minnesota for the advancement of innovative and sustainable design, construction, manufacturing, regulatory and management practices.

MPOWR intends to uphold its mission and vision through a dedicated membership who is interested in advancing the onsite wastewater industry in Minnesota. MPOWR's role in water quality management and protection will include education, training, system management, technical guidelines and public information dissemination.

Those interested in learning more about MPOWR and the charter meeting please contact the Charter Secretary, Peter Miller at millerenvironmental@msn.com or 763-370-5961.

22

····· State Group Happenings ·····

Pennsylvania

Pennsylvania Associations Engage in Dialogue

A couple of months ago a couple of POWRA board members met with board members of both PASEO (PA Association of Sewage Enforcement Officers) and the PSMA (PA Septage Management Association). The purpose of the meeting was to come to an understanding of the role of the three associations. PASEO represents about 200 or so of the 600 state certified SEOs, and PSMA represents about 10% to 20% of the service providers. Pennsylvania does not license installers, pumpers, or designers. SEOs, for the most part, are hired by the local municipality to issue permits for the construction of individual and small community systems under a very prescriptive code. The results were productive in beginning a long overdue dialogue.

POWRA has been asked to give a presentation (90 minutes) at the upcoming PASEO convention March 3rd and 4th. The SEOs will get 1.5 hrs of continuing education credits for attending the session. The session topic is Sewage Management. But, an overview of NOWRA could also be useful. POWRA will have a booth. The Convention has had up to 400 in attendance in the past, but I do not think we will have as many, as most of the SEOs were recertifiated last year. We tried to get NOWRA's A to Z course approved for CECs but PA DEP said the A to Z course is too general and covers alternatives that the SEOs are not allowed to issue permits for. In Pennsylvania, the Local SEO only can issue permits in accordance with the code. For all other systems, PA DEP issues the permits. We could use NOWRA's help at the booth. Bob Lee came to PASEO two years ago and got us off to a good start. If the NOWRA tabletop exhibit is available along with some handouts, it could be a big help. POWRA also was asked to co-sponsor a Water Reuse Symposium (see the link below). http://www.dep.state.pa.us/dep/deputate/watermgt/WSM/WSM TAO/Reuse/

Reuse_Sympos.htm I hope POWRA can

exhibit here as well.

We (POWRA) have been talking to Jim Converse about putting on the A to Z course anyway. And I have recently talked with Larry Hepner (POWRA board member) about developing a couple of under- and post-graduate courses, using the A to Z course as a springboard. We also see the need for a Sewage Management Forum.

POWRA is in the process of electing officers, sending out invoices for dues, and planning our programs. We have incorporated but we have not filed our IRS paper work for our tax status (I guess we have the same for the State).

David V. Linahan, PE Acting President

Texas

Texas On-Site Wastewater Association

At the last board meeting (end of November), TOWA decided to proceed with a new training program, called the CERTIFIED MAINTENANCE PROVIDER program. The purpose of the CMP program is for TOWA to train and "certify" participants in the concepts and techniques in properly maintaining and trouble-shooting all types of OSSFs (onsite sewage facilities) in Texas.

The first two days of the training would include a basic coverage of these, with the second two days a more advanced and technical review. Participants who complete the entire course, including both written and hands-on examinations, will be granted a TOWA CMP certification.

It is hoped that such a level of competency will increase the quality of O & M work on all systems in Texas.

The first offering of the course will probably be in June, 2003, at the TOWA conference in San Antonio.

FRANKLY SPEAKING...

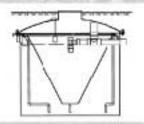
importance of education to NOWRA members. More will make it fine—less means being left behind!

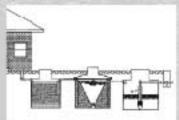
There is another new subject matter on the horizon that the onsite industry must address. It is called Capacity Management Operations & Maintenance— CMOM. This new program, also under the direction of the US EPA, will change the way cities and small communities examine their sewer collection systems for things like build-up in lines, lift pump station failures, deterioration of lines, infiltration, and sewers that may be undersized for the amount of liquids they carry. When this program goes into effect, guess what happens? Municipalities will start to form sanitary districts (as the answer to growth). And, because these newly found conditions result in limited flow capacity at existing municipal treatment plants, the newly formed sanitary districts will use "onsite systems" as their solution. The end result will be sanitary districts around the municipal systems—already approved and under way.

These issues present a whole new set of questions affecting NOWRA members. Does the city engineer design, install and manage these systems? If so, what do they know about onsite systems? As potential business, do we lose or do we get to them? I say, let's charge forward and make these city engineers highly aware of NOWRA. Here is a whole new set of opportunities for our industry. If you are one of the industry practitioners, get subscriptions to all of the trade magazines and prepare for the new wave of issues and business opportunities as a "responsible management entity." And—in order to be considered to be an RME—businesses will need to be incorporated and registered within the state.

There's more to read in the journal—but remember, we need to hear from you—to know what your needs are in order to provide the best member benefits.

The Difference is Gloar





Model DF-50 Aurobic Treatment Pant



- Residential and Commercial Wastewater Systems
- Certified to ANSI/NSF Standard 40 Class 1
- Fiberglass or Concrete Construction Available
- · Models from 400 to 1500 gallons per day
- Modular Systems Available
- Pre-Engineered Drip Systems,
 Electrical Control & Alarm Panels Available



Delta Environmental Products, Inc.

Call 1-800-219-9183 for more information or visit online at www.deltaenrironmental.com





WORK SMARTER, NOT HARDER

VITH THE NEV THATE MINITERM REMOTE MONTORING THAT FROM SUFFRICABLS

Work smarter, not harder with the NEW advanced **Data Minder** panel from SJE-Rhombus. With it's **user friendly**PDA interface and **data logging** (logs the last **4,000** system events) capabilities, you can set, check and troubleshoot your systems with ease!

The remote monitoring option (11F) allows the service provider to access the **Data Minder** parel from a personal computer via a cedicated or shared telephone line. This allows you to troubleshoot your system prior to sending out service personnel to the site, saving you time and money! Call today to see how the **Data Minder** panel can work for you!





AMERICAN MANUFACTURING Company, Inc.

www.americanonsite.com

Bull Run Valve™

Dial-A-Flow™

Perc-Rite® drip equip.

Timer Controls







.





Toll free: 1-800-345-3132

P.O. Box 549 Manassas, VA 20108

Decentralized Systems— The Changing World of Wastewater Treatment

12th Annual Conference & Exposition Prospectus & Registration

Attention Conference Exhibitors

The National Onsite Wastewater Recycling Association's 12th Annual Conference, the premier educational event for our industry, begins Monday, November 3, 2003, in Franklin, Tennessee (just south of Nashville) with two unique workshops geared toward the Building/Development Industry and Operations & Management. This year's events are designed to provide the 2003 NOWRA conference attendees with more interaction within the facilities in order to promote stronger education and knowledge about your products and services for the design, management and operation of onsite wastewater systems. Our mission is to ensure that you have, and leave with, numerous successful opportunities in 2004.

Exhibitors at the 2003 Conference will find the facilities at the Marriott Cool Springs Conference Center a particularly advantageous location to develop new contacts and build upon existing relationships with professionals in the onsite industry. All social activities and break events are held within the exposition area in order that maximum interaction takes place between conference attendees and the service industry. We are marketing this event much earlier than in previous years. The bottom line is that...few onsite industry events offer the chance to market products so directly to your most important customers, as NOWRA's Annual Conference.

Enclosed in this prospectus is the new exposition layout that provides ample traffic flow to all exhibitor locations, at affordable fees. The spacious booth layout enables potential exhibitors to select either a double or single booth, with ease of passage through the aisles. A second room is available for additional exhibits, as well as access to a parking area that can be used for equipment. More importantly, 2003 exposition rates have only increased 5%! Our goal is to ensure that you have a highly successful event.

In response to feedback about NOWRA's 2002 Conference Exposition, the exhibit area is open only during the two-day "prime-time" meeting period. Educational programs are being planned as incentives for contractors to attend the conference and visit exhibitors. Similar opportunities are planned for regulators to maximize their time with the onsite industry exhibitors. We hope that through these changes and actions, we demonstrate our commitment of support to you.

Should you have any questions about the Exposition after reading the enclosed materials, please do not hesitate to contact us. We look forward to an exciting Conference and Exposition—and most importantly, to seeing you there!

Sincerely,

Tim Frank, President Raymond Peat, Vice President Linda Hanifin Bonner, Ph.D., Executive Director

portant Information

WHEN AND WHERE? EXHIBITORS' SCHEDULE

The NOWRA Exposition will be located in the Marriott Cool Springs Conference Center in Franklin, Tennessee.

Booth Set-Up	Sun., Nov. 2	4:00 p.m.
•	Mon., Nov. 3	8:00 a.m 3:00 p.m.
Opening Reception	Mon., Nov. 3	5:00 p.m 7:00 p.m.
Exhibit Hall Open	Tues., Nov. 4	8:00 a.m 12:00 noon
•		2:00 p.m 4:00 p.m.
	Wed., Nov. 5	8:00 a.m 3:00 p.m.

Breakdown Wed., Nov. 5 3:00 p.m.

Booth staffing during technical sessions is optional. Breaks will be held in the Exposition Hall. Security will be provided during setup and exhibit hours.

NOWRA reserves the right to remove other materials and to reject a registration for any reason.

WHAT DOES THE SPACE COST?

The NOWRA Member rate for a	10 X 8 booth	\$850
	20 X 8 booth	\$1500
Non-NOWRA Member rate for a	10 X 8 booth	\$1000
	20 X 8 booth	\$2000

Reservations received after August 15 will be accepted on a space available basis, with an additional late fee of \$200.

WHAT IS INCLUDED IN THE SPACE?

Each 10 X 8 both includes:

- 1 7" x 44" one-line, black on white identification sign to include booth number
- 1 8' x 30" x 30" table topped in white vinyl and skirted on three sides
- 2 chairs
- 1 wastebasket

Each 10 X 8 booth registration includes:

Two full conference registrations

Company name in the Exhibitors' Listing in the Conference Program Directory and Exposition Hall signage as of publication date.

One-time use of a set of mailing labels of all conference registrants available, upon request, until May 30, 2003.

All booths are being set up as defined in the floor plan. Booth back drapes are 8' high with two 36"-high side dividers, supported by a steel framework. All drapery is clean, properly hemmed and flameproof in accordance with local fire regulations. The hall has permanent carpet.

RESERVING SPACE

Complete and sign the "Exhibit Space Reservation Form" on page 28. Send it with your check (payable in U.S. \$\$) to NOWRA, P. O. Box 1270, Edgewater, MD 21037–7270; or fax the form with credit card payment. (410/798–5741)

WHEN WILL SPACE BE ASSIGNED?

The space assignment process begins March 30, 2003.

CANCELLATION

If an exhibitor cancels on or before September 30, 2003, a full refund, less \$50 processing fee, will be made. If an exhibitor cancels after October 1 but prior to October 15, there will be no refund, unless the Exposition is sold out and the space can be reassigned, in which case the exhibitor will pay 50% of the total contract fee.

Exhibitors must first call NOWRA if they must cancel their space reservations. A **cancellation is not effective until it has been received** *in writing* **from the exhibitor**. Signed cancellations sent via facsimile will be accepted (1–410–798–5741).

VISIBILITY FOR YOUR COMPANY

Become a Conference Sponsor at NOWRA's 12th Annual Conference and Exposition and receive company visibility and recognition among collegues in the onsite industry. For additional information about sponsorship opportunities, contact Brenda Guy at 1–225–665–1666.

Don't miss this wonderful marketing opportunity!

The conference Program will go to press October 3, 2003.

The deadline for reserving prime advertising space is August 1, 2003.

The deadline for advertising copy to be submitted to NOWRA is August 29, 2003.

Conference Program Advertising is separate from other advertising opportunities. Advertisement rates are:

Full Page	\$1000
1/2 Page	\$750
1/4 Page	\$450
Professional Business Card	\$250
Back Cover	\$1500
1/2 Inside Back Cover	\$850
Full Inside Front or Back Cover	\$1200

HOTEL RESERVATIONS

All Lodging Reservations for NOWRA's Conference will be made by individual attendees directly with Marriott reservations. Please remember to ask for the National Onsite Wastewater Recycling Assn (NOWRA) group rate. Individual cancellations must be made more than 72 hours prior to arrival. After this time, attendees will be charged for the first night of their reservation or forfeit their individual deposits. All Hotel Rooms are \$99.00 per night + taxes. Please see the Reservation Form for additional information.

Other lodging facilities in the area include the Hampton Suites and Ramada Inn.

CONFIRMATION AND EXPOSITION KITS

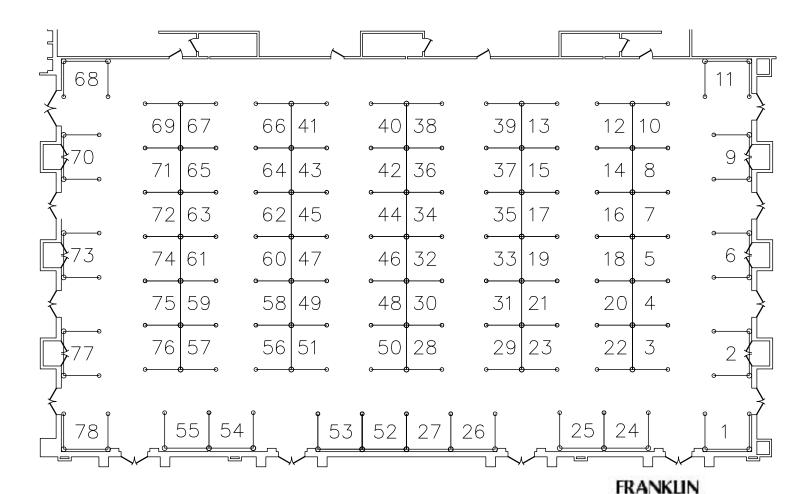
When registration is complete, your company will receive confirmation, booth space assignment and exhibitor kit from the exhibitor services firm (allow a number of weeks). The exhibitor kit includes order forms for electrical, telephone, water, carpeting, and any other booth needs.

LIABILITY

NOWRA is not responsible for, and does not carry liability insurance for, the safety of your exhibit materials or equipment against theft, robbery, accidents, damage by fire or any other cause prior to, during, or subsequent to, the conference period. Valuables should be removed from all booths when not staffed. Please check with your insurance carrier regarding Conference coverage.

26

Exposition Hall Layout



Guest Room Reservations

NOWRA's 12th Annual Conference & Exposition - Nov. 3-6, 2003

ast Name (please print)	First Name	First Name Company/Organization			
itreet Address	ldress City State/Province			Zip/Postal Code	Country
Daytime Phone	Fax	Sharing Room	With		
Arrival Date Arrival Time	Departure Date	☐ Smoking ☐ Non-sm	oking		
All rooms are \$99.00 + tax. Check prefer	red type □ Single □ D	Oouble 🗆 Triple 🗆 C	Quadruple		
☐ American Express ☐ Visa ☐ Maste	erCard □ Discover Card Cr	edit Card Number		Exp. Date	
Name on Card		Signature (required)			

Reservations by attendees must be received on or before Sunday, October 12, 2003. At the cut-off date, the Hotel will review the reservation pick up for the Event, release the unreserved rooms for general sale, and determine whether or not it can accept reservations based on a space- and rate-available basis at the group rate after this date.

Mail or Fax Form to: Franklin Marriott Cool Springs

700 Cool Springs Boulevard

Franklin, Tennessee 37067

(20 minutes south of the Nashville, TN airport)

Fax: 615-261-6148

or call Marriott Reservations at 615-261-6100

For reservations online, please visit www.marriott.com

Exhibit Space Reservation Form

NOWRA's 12th Annual Conference & Exposition

Decentralized Systems-The Changing World of Wastewater Treatment

COMPANY INFORMATION

Address City Slate Country Zip/Postal Code Phone Number	Company / Organization (plea	se print)					
Phone Number Fax Number Website: Company name exactly as it should be listed CONTACT PERSON INFORMATION Person to creation for space estignment: Phone: Fox:	Address						
Company name exactly as it should be listed CONTACT PERSON INTORNATION Person is contact for spose resignment: Final Fi	City			St	tate	Country	Zip/Postal Code
CONTACT PERSON INFORMATION Parson to creative multirality: Phrene: Fina: Fi	Phone Number		Fax Number	W	Vebsite:		
Parson to cented for space exisjument: Fax: Email:	Company name exactly as it s	hould be listed					
Feron to receive materials: Title	CONTACT PERSON INFORM	MATION					
Person to receive meterials: Address Gity Street Address (If PD box is used above) BOOTH PERSONNEL AT CONFERNCE Attendee PL Lost Name First Name First Name First Name First Name First Name Nome on budge (if different from First Name) Steet Address Gity Desprime Phone SPACE RESERVATION REQUEST While every effort will be made to accommodate your placement request, preference in booth assignments is given first to NOWRA Member rate NOWRA Member rate SR75 (credit card) Double (20' x 8') Double (20' x 8') Booth choice(s) for our company are: Ist: 2nd: 5rd:	Person to contact for space assignment:			Tit	tle:		
Street Address (IF PD box is used above)	Phone:		Fax:	En	mail:		
Size Address (If PO box is used above) BOOTH PERSONNEL AT CONFERENCE Altendes #2 Lust Name	Person to receive materials:			Tit	tle:		
Altendee \$71 Lost Name First Name Name on bodge (if different from First Name)	Address						
Altendee #2 Last Name	City			Sto	tate	Country	Zip
Altendee #2 Last Name Name on badge (if different from First Name)	Street Address (If PO box is used above)						
Altendee #2 Lost Name Name on bodge (if different from First Name) Street Address City State/Province Zip/Postal Code Country Daytime Phone Fox Email SPACE RESERVATION REQUEST While every effort will be made to accommodate your placement request, preference in booth assignments is given first to NOWRA's Corporate Sponsors, Company Donors and Sustaining Members. NOWRA's Corporate Sponsors, Company Donors and Sustaining Members. Double (20' x 8') Double (2	BOOTH PERSONNEL AT CO	ONFERENCE					
Stock Province Zip Postal Code Country	Attendee #1 Last Name	Attendee #1 Last Name Name on badge (if di			e (if different from First Name)		
State/Province Tap/Postal Code Country	Attendee #2 Last Name		First Name	No	ame on badge	e (if different from First Name)	
Payment Phone Fax E-mail	Street Address						
SPACE RESERVATION REQUEST While every effort will be made to accommodate your placement request, preference in booth assignments is given first to NOWRA'S Corporate Sponsors, Company Donors and Sustaining Members. Size of space Requested Single (10' x 8') Double (20' x 8') Double (20' x 8') Member Number: Member Num	City			Sto	tate/Province	Zip/Postal Code C	ountry
While every effort will be made to accommodate your placement request, preference in booth assignments is given first to NOWRA'S Corporate Sponsors, Company Donors and Sustaining Members. Size of space Requested Single (10' x 8') Double (20' x 8') Double (20' x 8') Double (20' x 8') Double (20' x 8') Member Number: Member Number: Member Number: Member Number: Non-member (Membership enclosed—\$140) Non-member rate \$1000 Double: \$2000 (check or credit card) Non-member rate \$1000 Double: \$2000 (check or credit card) Non-member rate \$1000 Double: \$2000 (check or credit card) Non-member rate \$1000 Double: \$2000 (check or credit card) Non-member rate \$1000 Double: \$2000 (check or credit card) Non-member rate \$1000 Double: \$2000 (check or credit card) Non-member rate \$1000 Double: \$2000 (check or credit card) Non-member rate \$1000 Double: \$2000 (check or credit card) Non-member rate \$1000 Double: \$2000 (check or credit card) Non-member rate \$1000 Double: \$2000 (check or credit card) Non-member rate \$1000 Double: \$2000 (check or credit card) Non-member rate \$1000 Double: \$2000 (check or credit card) Non-member rate \$1000 Double: \$2000 (check or credit card) Non-member rate \$1000 Double: \$2000 (check or credit card) Non-member rate \$1000 Double: \$2000 (check or credit card) Non-member rate \$1000 Double: \$2000 (check or credit card) Non-member rate \$1000 Double: \$2000 (check or credit card) Non-member rate \$1000 Double: \$2000 (check or credit card) Non-member rate \$1000 Double: \$2000 (check or credit card) Non-member rate \$1000 Double: \$2000 (check or credit card) Non-member rate \$1000 Double: \$1000 Dou	Daytime Phone		Fax	E-1	-mail		
Exhibiting Company Authorized Signature 1/2 Page=\$750	While every effort will be no modate your placement re in booth assignments is ging NOWRA's Corporate Spondonors and Sustaining Medical Size of space Requested Description of the Size of space Requested Description of the Size of Space Requested Description of the Size of Space Requested Description of Size of Space of Spa	reserve exhibit e certify that the pwledge the pay- uniform and to accomquest, preference oven first to sors, Company embers. Single (10' x 8') Double (20' x 8') mpany are: reserve exhibit the certify that the re used in the pwledge the pay- uniform many purification.	Booth rental fees: NOWRA Member rate Double: \$1500 Name: Member Number:New member (Membounder) Non-member rate \$100 Double: \$200 Late fee \$200 CONFERENCE SPONS Platinum—\$2500 Silver—\$750 CONFERENCE PROGE	\$850 (check) \$875 (credit ca) (check or cred bership enclosed 00 00 (check or cred Gold-\$150 Bronze-\$5 RAM ADVERTI	d-\$140) dit card) DN 00 500 TISING	full payment in U.S. Dolla checks payable to NOWRA 2003 Conference Enclosed is our check # MasterCard Amount \$ Credit Card Number Expiration Date Name on Card Signature (required) Mail Completed & Signed with Payment in Full to NOWRA Exposition Regis	ars. Please make te Exposition. for \$ Discover Car I Registration Form
1 Commined	Ü ,	Ü	□ 1/4 Page-\$450	☐ 1/2 Inside Cover–\$85 ☐ Back Cover–\$15	Back 50 500	or FAX Credit Card Paid F 410-798-5741 Pmt. Recd En	tered

Announcement...Announcement...Announcement...

The Communications & Promotions Committee of NOWRA is looking for articles for the *Onsite Journal*. Below you will find the proposed issue themes for the 2003 calendar year. We are also developing a "Contractor's Corner" feature for the publication, which will be themed articles authored by an installer/contractor. Other features include the "Ask The Expert" question and answer column and State & Province Happenings.

- ✓ Articles submitted for publication should be 1 to 3 pages in length in MS Word format
- ✓ Graphics and visuals that support the article content are encouraged (and digital files of these should also be sent, not just embedded in the MS Word document)
- ✓ Electronic files are preferred and should be e-mailed to Mike Stephens at scscons@yahoo.com

If you are interested in submitting an article for this publication, please contact the Committee Chairperson, Mike Stephens at (517) 339-8692.

Onsite Journal 2003 Advertising

As you are aware, we have made substantive changes in NOWRA's main publication—the *Onsite Journal*—during the past two years. These changes are now resulting in numerous benefits to you, our advertisers, and to our membership. The feedback we have received is that one of the advantages from the increased circulation is that your information is reaching potential customers such as regulators, developers and public officials. With the increased circulation, we are receiving more calls and e-mail requests for NOWRA's members who are equipment manufacturers, suppliers, installers and designers.

A NEW 2002 BENEFIT! Each issue of the *Onsite Journal* is placed on NOWRA's website—complete with advertising! And, we are planning to provide another opportunity for additional contacts. With the new website enhancements, we will be able to link your products directly from the site to your contact. In 2002 we expanded our technical content to focus on a theme for each issue; in 2003 we are adding "juried" articles. We are also considering 4-color sections to respond to advertising requests. All of these changes have had a positive effect with regulators, manufacturers and others requesting additional copies of the newsletter.

Issue	Theme	AD Deadline
January/February	Regulations, Education and Certification	January 3, 2003
March/April	April Maintenance and Operations	
_	Preliminary Conference Announcement	February 22, 2003
May/June	Treatment Technology/Conference Registration	April 19, 2003
July/August	Conference Registration/ Model Code Annual Update	June 21, 2003
September/October	Research/Solids Management	August 23, 2003
November/December	Annual Report/Membership/Financial Management	October 18, 2003

Rates

Page Size	Single Issue	1	Annual (6 issues)*	1	Identify if Color is desired**
Full page	\$1,050		\$6,000		
1/2 Page	\$775		\$4,325		
1/4 Page	\$525		\$2,950		
Business Card (2.33"x1.5")	\$150		\$ 837		
1/2 Outside Back Cover	\$1,050		\$5,859		Taken
1/2 Inside Back Cover	\$875		\$4,883		
Full Inside Back Cover	\$1,550		\$8,649		
Centerfold Spread	\$2,400		\$13,020		

^{*}Payment terms to be addressed with headquarters office. **Rates will be determined if there is ample interest

All NOWRA publications are produced on a Macintosh G4 system using QuarkXpress. Our preference is to receive ads via e-mail as eps or pdf files. We can also accept hard copy but caution that the quality of a scanned ad may not be as crisp as the original. Questions on the formatting specifics of an ad should be addressed to Susan Rutter, NOWRA publications designer, at 757-599-9035 or e-mail sbrutter@cox.net.

Company:	Contact Pers	son	
Phone: Fax	x:	email:	
Address:	City:		State: Zip
Bill Company □ Check Enclosed □ Credit Cardo Card No			
Visa \square Master Card \square Discover \square	Name on Card:		Exp. Date:/
Authorizing Signature:			

...Proposal...

It is proposed that the *Onsite Journal* include a new section dealing with technical articles, called Technical Notes or Briefs. Papers published in this section will be selected through a peer review process. Qualifications for papers and guidelines for authors will be similar to ASAE Transactions guidelines, modified for NOWRA's purposes. A peer review board will be selected, as will a technical editor.

Papers submitted will be accepted, accepted with minor changes, accepted with major revisions, or rejected. The focus will be onsite and onsite-related articles. Any paper submitted must have a solid scientific and technical basis. Reviewers will look for sound experimental design, replication, good sampling techniques, good writing technique, following format and guidelines, applicable subject matter, proper citations. Papers may be methods topics, such as "how to correctly install and use pan lysimeters" or "environmental factors affecting sampling design." Review articles may be published annually.

Each article will be limited in length to 2-3 pages. Authors will be expected to make their thesis focused, clear and address all technical matters within a brief format. The goal is to ensure that articles are usable and readable. A true peer review process will make the articles citable and industry acceptable.

Small-Scale Wetland Project Seeks Data

A project team working on behalf of the Water Environment Research Foundation (WERF) recently launched a website (www.wetlandsurvey.org) to collect data necessary to assess the distribution, performance, field conditions, and regional differences of small-scale wetland systems via a survey.

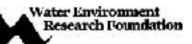
The project, Feasibility, Design Criteria, and O&M Requirements for Small-Scale Constructed Wetland Wastewater Treatment Systems (01-CTS-5) was initiated in July 2002 to establish up-to-date information on small-scale constructed wetland treatment systems, including those serving single-family homes.

Most existing databases and design documents on constructed wetland performance focus exclusively on larger systems (greater than 50,000 gallons per day). As more and more communities are turning toward onsite decentralized facilities for their wastewater needs, there is a greater necessity for accurate design and operation information on these systems.

Information developed from this project will be available in an easy-to-use format that is accessible to designers and regulators who have to solve the wastewater problems of small communities. This project will result in a better understanding of treatment wetlands, as well as improved performance of these systems.

Please visit the project website to complete the one-page survey. Scott Wallace, P.E., of North American Wetland Engineering, P.A. is serving as the principal investigator for the project. He can be reached at

swallace@nawe-pa.com for more information.





2003 Calendar

February 26-28, 2003

NOWRA – Model Performance Code Committee Meeting Austin Marriott Hotel-North 2600 LaFrontera Blvd., Round Rock, TX Contact: NOWRA Office – 1-800-966-2942

February 28 - March 1, 2003

Oregon Onsite Wastewater Association Annual Meeting Chemeketa Community College Salem, Ohio Call 541-673-6731

March 7, 2003

Minnesota Professional Onsite Wastewater Recycling Association Charter Meeting – 8:30 a.m. to 5:00 p.m. St. Cloud Radisson Suite Hotel 404 W. Germain St., St. Cloud, MN 56301 Contact: Peter Miller – 763-370-5961

March 24-29, 2003

Small Flows Regulators Meeting Las Vagas, NV Contact: Peter Casey – 800-624-8301

March 24-26, 2003

Ontario On-site Wastewater Conference & Exhibition Delta Meadowwale Hotel and Resort Mississauga

Contact: Remo Petrongolo – 519-824-4120

March 27-29, 2003

North Carolina Septic Tank Association Annual Convention & Expo Holiday Inn-Airport in Greensboro, NC Contact: Doug Lassiter – 336-345-8357

March 27-28, 2003

Colorado School of Mine Conference Topic: NOWRA Model Performance Code Contact: Bob Siegrist

March 3 - April 18, 2003

Florida On-site Wastewater Association Training Courses

March 3 - April 24, 2003

Northwest Onsite Wastewater Training classes Contact WOSSA office at 253-297-2837

March 3 - April 23, 2003

Minnesota Onsite Continuing Education Courses Contact: Sara Heger Christopherson – 612-625-7243

June 8-11, 2003

National Environmental Health Association Conference Reno/Lake Tahoe, NV

30

Step Out of the Stone Age ...

Compared with stone and pipe systems, Infiltrator septic chambers offer comparable wastewater treatment with up to a 50% smaller footprint. Infiltrator chambers are the modern solution when it comes to top quality products, long-term performance and design flexibility. There are more than 27 million Infiltrator chambers installed in the United States and 13 other countries.





A. I.

(After Infiltrator)

Out of en sal

Our chamber technology is based on fundamental principles of physics, soil science and topography and is scientifically engineered for the job. Today, it's more important than ever to safeguard our precious natural resources. With Infiltrator

> chambers there's no stone, which means less site disruption and more efficient use of space.



Visit our website at www.infiltratorsystems.com where you can download all the latest Infiltrator literature and CAD drawings.



6 Business Park Road P.O. Box 768 Old Saybrook, CT 06475 800-221-4436 fax 860-577-7001 www.infiltratorsystems.com

K-RAIN 4000 & 6000 ONSITE WASTEWATER DISTRIBUTING VALVES... THE SOLUTION FOR POOR PERCULATION!



The K-Rain 4000 & 5000 distributing valves offer a reliable, economical way to automate multiple zoned wastewater systems.

K-Rain 4000 and 5000-RCW Onsite Wastewater Valves.

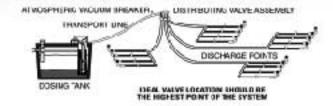
The wastewater valves can be ordered to automatically cycle from 2 to 8 drainage fields. Simplicity in design allows for easy maintenance and a long product life. Both have highly visible purple caps designating wastewater usage.

4000 High-strength, non-corrosive ABS polymer construction.

Operates with flows as low as 10 GPM and at pressures of 2 to 75 PSI

6000: Durable, long-lasting metal die-cast body designed for high pressure applications.

Operates at a minimum of 15 GPM and at pressures of 2 to 150 PSI.





Packed with patented K-Rain technology and time-proven features, the ProPlus RCW Rotor is the Professional's Choice!

K-Rain ProPlus RCW Rotor. With an adjustable 40° to 360° arc and a wide range of nozzles for flexibility in system design, you can't find a more adaptable or dependable series in the market.

- · Patented Arc Set degree markings.
- Supplied with 4 low angle interchargeable nozzles.
- Arc adjustment from 40° to a continuous 360°.
- Radius cf 22' to 44'.
- Flow rate of 1.5 to 8.6 GPM.

Simplicity, Versatility, Dependability. K-Rain Wastewater Systems.

1640 Australian Avesue Riviers Beach, FL 33404 1.890,735,7246 Fsx: 961,842,9453 Web: www.krain.com Email: krain@krain.com

© 2003 F Rain Manufacturing Corp.



CALL FOR PAPERS

NOWRA's 12th Annual Conference and Exposition Franklin, TN • November 3-6, 2003

NOWRA welcomes members and non-members to submit proposals for papers to be presented at the Annual Conference in Franklin, TN. All papers accepted will be included in the Proceedings distributed to conference participants and be available for sale.

Conference topics represent a diverse field of subjects, ranging from technical research on effluent treatment to community aspects involved in implementing a managed onsite district to new technology and maintenance and operation. In general, our membership consists of regulators, practitioners, contractors, designers, academics and community activists.

Proposed papers are given consideration only if the materials requested in this form are delivered complete and in a timely way. E-mail submission of the proposal is preferred, and arrangements can be made for faxed submissions (see below*).

Please provide the following information in a Microsoft Word or WordPerfect document:

Presenter's Name, Organization and Job Title

Street Address, City, State/Province, Zip/Postal Code, Country

Phone, Fax, Email

List of Co-authors

Regular Abstract – The abstract should provide enough information for the Program Committee to determine how the presentation fits into the Program. Describe the information to be presented, the status of the work, the insights gained. This abstract should be no more than 200 words. Please do not submit a finished presentation or a PowerPoint presentation. Keep it simple. **Short Abstract** – Condense the abstract to its essence. This brief statement will be used in Conference promotions and in fulfilling CEU credit requirements from various states.

Biographical Information - current position and education. (Not a detailed résumé.)

Length of Presentation - 25 minutes or 50 minutes.

Please send this Word document as an attachment to Peggy Minnis at: MMMinnis@aol.com Fax: 203-866-4070 – *only* if absolutely unable to send information by e-mail. **Abstracts cannot be accepted after March 30, 2003.**

*This can also be downloaded as a pdf file from NOWRA's website.



NOWRA Publications

Hot Off the Press!

NOWRA has just published an updated Homeowners' Folder and four new brochures with important and helpful information:

- Who we are...and our role in water quality protection
- The Evolution of a NOWRA Model Performance Code for Onsite and Decentralized Wastewater Systems
- Important Facts about the NOWRA Model Performance Code Project for Onsite and Decentralized Wastewater Treatment Systems
- NOWRA's Model Framework for the Unsewered Wastewater Infrastructure

To order any or all of these publications for yourself, your business or your organization, please contact NOWRA Headquarters at 1-800-966-2942.



PRESORT STD U.S. POSTAGE **PAID** Permit #2 NORFOLK, VA

Better Water FAST®



Single Family Dwellings



Clustered Subdivisions

FAST® wastewater treatment systems help you build environmentally advanced yet simple and affordable projects. Ideally suited for use in single family dwellings, clustered residential developments and subdivisions, restaurants or other high strength commercial applications, a versatile FAST system is ready to serve your needs. FAST can even be used to retrofit a failed conventional septic system, giving home owners and small communities the innovative solutions they seek.

Dependable, affordable...FAST.

Discover the Difference

FAST was ewater treatment systems





High Strength Commercial



Failed System Renovation

8450 Cole Patkway Shawnee, KS 66227 • 800-753-FAST(3278) • Fax: 913 492 0808 www.biorricrobics.com