



Oregon Onsite Wastewater Association

Spring 2004 newsletter

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2004 Annual Meeting Provides more than "Just the Basics"

by Dick Polson

Congratulations to all 180+ of you that attended this year's annual meeting at Chemeketa Community College. By any measure, this year's meeting was a success, and all attendees should take some credit for making it so.

This year's theme was "Back To The Basics", a repeat of a theme we used two years ago. Emphasis was on information that you could use, whether you were an installer, a designer, or a regulator.

Friday morning began with a keynote address by Dr. George Tchobanoglous, Professor Emeritus from University of California – Davis and a recognized world leader in research and teaching on the subject of wastewater treatment. He emphasized that the future of the industry lies not in sewage disposal, but in reclamation and reuse of a water resource. How to do that makes for very interesting discussion. He was followed by Dr. Mark Gross of the University of Arkansas, who covered this business from a national perspective. He discussed what he sees as the current trends in research and regulation across this country. Finally, Mark Cullington, Oregon DEQ Manager of the Onsite Sewage Disposal Program, delivered an address concerning the immediate and not-so-immediate future of the program here in Oregon. All speakers were well-received and put a lot of ideas on the table for discussion. All that heavy thinking caused us to adjourn for lunch (time to recharge!) and to begin our conversations with some 16 vendors who put on displays of their wares. Friday afternoon saw us divide into groups to attend a number of presentations covering a broad range of topics. Barbara

Rich (DEQ/Deschutes County) discussed research results from the La Pine project, while Dave Morgan (US Geologic Survey) presented the results of their study on the geology and hydrology of the area. Dr. Herb Huddleston (Oregon State) presented the basics of soil profile analysis, with emphasis on how to recognize seasonally wet sites. Installers could attend any of these classes, plus a set of classes designed specifically for them. Classes were conducted on pipes and glues, Bill Stuth presented another great discussion on the operation and maintenance of systems ranging from the simple to the complex, and Dan Bush held forth with another Installer's Roundtable. Jim Bell (Smith and Loveless, Inc., Lenexa, KS) discussed how aerobic treatment systems work and what yardstick should be used in choosing a system for a site, information that ties into the La Pine research at the practical level. In short, there was something for virtually everyone in the industry at these sessions.

Friday evening there was an opportunity to socialize with other attendees and speakers over a nice dinner and maybe a beer or two. Most of us had a really good time doing exactly that.

Saturday morning started a series of classes that included some repeats from Friday as well as new classes. Highlights included a field tour of a 30,000 gallon per day system recently completed at the Mt. Angel Abbey and ably led by Brian Rabe (CES). Uri Papish (DEQ) presented a discussion on the major overhaul of the onsite sewage disposal rules that is now ongoing and scheduled for adoption this summer or early fall. Brad Boisen (Oreco Systems, Inc.) put on a class on how pumps work and what standards should be used when choosing a pump for a given system. Richard Burleigh (Washington State Univ. Extension Svc.) discussed system maintenance from the homeowner's perspective and described how his agency is reaching out to both homeowners and the real estate industry so they can better understand how to take care of these systems.

Dennis Boeger (Poage Engineering, Eugene) discussed practical methods of designing and con-

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structing systems for ease of maintenance, while Bret Weymouth discussed the control of fats, oils, and greases in commercial applications. All the while the vendors were available for further conversations and consultations.

Saturday lunch provided an opportunity for attendees to try their luck at a raffle of prizes ranging from septic tanks to clothing to tools to a color TV. Our hats are off to Mike Kuenne, Spence Waite, and Scott Davis for helping to put this together so successfully.

Last but not least, our collective hats were off to Selina Madson and Marcia Willetts, who handled registration, CEU credits, and anything else that needed to be done to keep the conference moving along smoothly. We couldn't do it without them!

We hope to see all of you again next year. We encourage your input on what you like (or don't) about our meetings. One important question is where we should have next year's meeting. So far, suggestions include Umpqua Community College (Roseburg), Chemeketa Community College (Salem), the Deschutes County Fairgrounds (Redmond), Central Oregon Community College (Bend), or the Lane County Fairgrounds (Eugene). Let us know if you like any of these, or have another idea.

Holly Schroeder Appointed Administrator of DEQ Water Quality Division.

Holly Schroeder has replaced Mike Llewelyn as the DEQ's Water Quality Division Administrator. Since joining DEQ in 1995, Holly Schroeder has been involved in numerous projects to sharpen the agency's planning, processes and organizational flow. Appointed Water Quality Administrator in February 2004, she most recently served as manager of Water Quality's Surface Water Management Program, where she spearheaded efforts with an advisory committee to revamp DEQ's water quality permitting program.

Upon her arrival at DEQ, Schroeder was a Solid Waste Program permit project coordinator in the agency's Northwest Region office. She moved to the agency's Management Services Division in early 1997, serving

as organization improvement coordinator. Promoted to Management Services policy manager in 1999, she helped oversee agency-wide budget and legislative issues and implement improvements in the agency's budgeting and human resources systems. In 2002, she became acting administrator for Management Services. In May 2003, she assumed her role as Surface Water Management Program manager.

Schroeder has Bachelor of Arts degrees in chemistry and French from St. Olaf College, Minn., and a master's degree in applied information management from the University of Oregon.



Just when you think things are looking up!

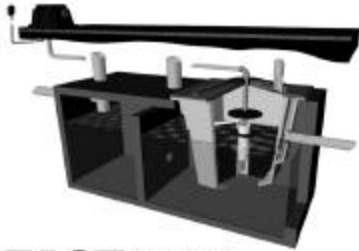
What is a "Reasonable Repair"?

by Zan Ewing

Designing and installing an *adequate* septic system repair on a small lot is one of the greatest challenges the onsite professional may encounter. Repairs on 1½ or 2 acre lots typically do not involve nearly the problems and difficult choices of the small ¼ to ½ acre lots. Many of these affordable suburban properties were developed after WW II and were provided with wells and septic systems. As these systems age, our lifestyle has changes and improved. As a result more and more of these systems are beginning to fail. When dealing with these properties, hard choices usually must be made in order to fix the systems. Like it or not, the designer, installer, regulator and homeowner must all roll up their sleeves and make some difficult choices between the "lesser of evils" for a workable repair. This thought process occasionally involves essentially throwing out the rulebook in the interest of public health to get sewage off the ground.

Continued next page

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Politically, it's not an attractive option to deny a repair permit because the site can't comply with current codes, then condemn the home. All parties involved in the process must try to do the best job they can, given what they have to work with, to fix the problem. Each has a stake in getting a satisfactory end product. The designer must submit a reasonable proposal for the system repair. The regulator must be reasonably comfortable that the proposal will work to issue the permit. The installer needs to be able to get heavy equipment into the area to physically do the job. And lastly, the homeowner needs to be able to pay for the work.

Every situation has it's own unique set of challenges and there may be NO consensus as to the right solution.

A "reasonable repair" is often interpreted differently from person to person and site to site. Dealing with these problems, usually hard decisions and compromises must be considered. Some examples of the tough choices we may need to ponder might be as follows:

- On a site with extremely limited space, the existing drainfield is located 65' from the well but all neighboring wells are 100' or farther away. Given the limited space available, will we be allowed to

install replacement lines 75' from the well? If not, would this decision change if the existing drainfield was left connected since it is still functioning but just can't take all the load?

- To maximize the limited space, will encroachment of the required property line or building setback be allowed if it will let us install an additional drainline?
- If city sewer is scheduled to connect the property in the near future, does what will be a short term repair need to be as complicated as otherwise might be necessary?
- Is it necessary to require the amount of total drainfield length prescribed by current code when the existing 175' of line lasted since 1968?
- Will a treatment system be required in order to get the code length of drainfield footage installed even if you suspect this expense will be unaffordable for the property owner?

Ultimately we must ask ourselves, "By doing it this way, are we improving an existing bad situation? Will this proposal work? Will this be enough? Will this decision cause us trouble?"

Through the years, many code requirements have changed, some have become more restrictive, some less. These code numbers are ideals but in many cases we need to take a closer look at how they may limit our choices on a site.

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THE 2004 ANNUAL CONFERENCE



COMMUNICATION



EDUCATION



VENDORS DISPLAYS



NETWORKING



NEW PRODUCTS



GOOD FOOD



SOCIALIZING



RAFFLE



Thirty or so years ago when many of these systems were installed, the minimum drainfield to well separation was 50 feet, now it's 100 feet. There was a period in the mid 70's that the property line setback to all parts of the septic system was 25'. Later this setback was reduced to 10'. The sky didn't fall. In 1995 this 10' property line setback from all portions of the system was relaxed to effect only the disposal trench and 5' was allowed for all other components. This points out that some of these numbers, although important and necessary, may be somewhat arbitrary and not necessarily based on hard science but rather common sense. It is important to know which setbacks are most important and may have potential consequences with their relaxation.

The economic impact of the repair has to be considered important in many situations. All too often, small lot size, failing septic systems, and lower economic conditions go hand in hand. Requiring excessively complex and expensive repairs may discourage people with problems from coming forth and applying for the required permits. Instead of doing it right, they may choose the unlicensed, inexperienced “weekend contractor” to try his hand at

fixing the problem. There will always be someone out there willing to fix the system “real cheap!”

These are some of the hard questions the onsite professional must evaluate in these difficult septic system repairs. Every situation will have its own unique set of challenges and there probably will be **NO** consensus as to what is the right solution. The “right answer” may remain in the eye of the beholder. These small sites present the ultimate test of the onsite professional, requiring all their experience and a fair amount of common sense. We will be required to be inventive and think “outside of the box”. We should keep as our ultimate goal, to do the best job possible replacing the septic system while keeping all the factors of each situation in perspective. The bottom line is, with difficult sites, we may not have the luxury or security of relying solely on the “code book”. Using a thoughtful and realistic approach to the problem, hopefully we may be able to install a workable system that will last for another 30 or 40 years or until sewer arrives.

It's for solving problems on difficult sites like these that they pay us the “Big Bucks”!

“Iowa's Vanishing Outhouse”

by Bruce Carlson:

The history of the quarter-moon on the door of the outhouse goes way back. Most serious historians who are students of the subject are of the opinion that the custom started in Europe in the 1500s or the 1600s. It was common practice, back then, to identify which outhouse was which by means of a circular symbol on the door of the mens' and a quarter-moon on the ladies'. The use of symbols rather than words was necessary due to the widespread illiteracy of the times. When a feller can't read and is headed for the outhouse, he sure doesn't need some incomprehensible hieroglyphics on the door to figure out. The circular symbol and the quarter-moon were Europe's version of the Chinese Yin and Yang. The circle was representative of the sun which symbolized masculinity. The more subdued and submissive moon, on the other hand, represented femininity.

The use of the circle and quarter-moon was especially common at inns and houses for "lodging. Not only was illiteracy a problem, but also the clientele of such places was more likely to be travelers from another country and another language. These universal signs were easy to make and easy to "read", so most such places had the little houses out back so designated, one with a circular sign, and one with the quarter-moon.

So why is the quarter-moon applied in more recent times to outhouses in general? The answer to that apparently lies in the economics of maintaining outhouses. If one of the outhouses at an inn, for example, were to have fallen into a state of disrepair, the solution was often to transfer, if necessary, the quarter-moon onto the surviving structure. It was reasoned that the men could always simply step into the shadows of the trees. An outhouse had to be kept for the ladies, of course, so whatever outhouse fell apart first was automatically the men's. This practice became so widespread that in many cases only a women's outhouse would be available to those who frequented such public places. Since those carried the quarter-moon, that symbol soon evolved into the sign for any outhouse, in general, rather than one for ladies only."

O2WA Elects Two New Board Members and President

Two new board members were elected at the O2WA Annual Conference replacing retiring members. Mike Hamer was elected to fill Mike Madson's position on the board representing installers. Mike Madson was the last of the original founding board members giving the organization 10 years service on the board of directors. Ron Smith was elected to replace John Smits in the Sanitarians position. John served on the board many years and his contributions appreciated.

At the March Board of Directors meeting, Zan Ewing was elected O2WA president replacing Dick Polson. Dick has worked very hard as president the last few years organizing the annual conference and other board duties. Dick wants to trade the responsibilities of president for the luxury of being "just a board member".

Brief biographies:

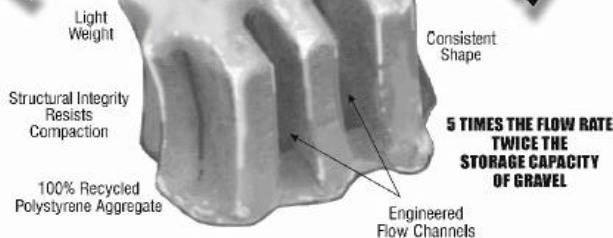
Mike Hamer thinks the two-hole outhouse that his family used until he was 11 began his interest in the field of onsite sewage disposal.... In 1987 Mike began working for Hanks Concrete Products in Lebanon, building septic tanks and repairing small tank problems. Over the next few years, becoming more familiar with the products, Mike began selling pumps and other onsite accessory products to local installers. In 1997 he purchased the repair side of Hanks Septic Service and got his installer license. In 1999 he began working for United Pipe & Supply as an independent salesman selling Orenco pumps and components. Mike currently is more involved with the installation side of the business but still sells equipment

for United. Mike is interested in installer training and O & M and would like to help increase the O2WA membership ranks.

Ron Smith graduated from Portland State University and began his career as a sanitarian working in Klamath and Lake County for 4 years. His work involved all the DEQ and Health Division programs. Ron moved to Corvallis and worked for Benton County until his retirement last year after 27 years. Working in Benton County, Ron's duties were mainly in the DEQ onsite program and rural water supply issues. Ron continues to work for Benton County part time, works on restoring a house in the country and has started a consulting business. Ron wants to be involved with the development of new technology and would like to help promote septic system maintenance.

Zan Ewing graduated from Portland State University and began his career in 1974 with the Linn County Health Department. After 5 years, he left Linn County and joined Terry Rahe as Cascade Earth Sciences first employee. During the lean recession years of the early eighties, Zan accepted two assignments working for the United Nations in refugee programs on the Thai, Cambodian and Laos border refugee camps. In 1982 he went on his own and started his installation and consulting business, Sani-Tech System. In 1997 he rejoined the regulatory side being hired by the Marion County Building Department. Some of Zan's goals are to build on O2WA's potential by soliciting more membership involvement. He would like the organization to become more than an annual conference.

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...and Septic Systems

The installation business is for people who are serious about their profession and constantly work to build their knowledge and skills.

By Gil Longwell

Quality installation of septic systems, on lot or onsite wastewater treatment systems in today's parlance, requires specialized skills, equipment and knowledge.

Quality installations are what focused professional installers deliver. Quality installations are not a sideline activity. Ask most excavators if they install septic systems and they reply, "Septics? Yeah, I can do that." To many excavators, septic installations are an afterthought. Check out the Yellow Pages under the heading: "Septic Tanks & Systems - Contractors and Dealers." Even in this focused category, a typical listing would be: "Jones Brothers Excavating, Driveways & Septics."

The listings for installers who focus their business on septic system installations are the standouts that catch the reader's eye and draw in the careful buyer.

Three toolboxes

Installation begins long before the equipment arrives at the job site, and it is not over until well after that equipment is at work at the next job site. The installation actually begins with the first customer contact, which is often over the telephone, or today over the Internet.

Professional installers are an information resource, interpreters of regulations, explainers of system options, and guides for landowners. The pros know the regulations, the regulators, the soils in their service area, and how all of these factors come together to influence the final job.

Professional installers have at least three types of tool boxes. Each contains a different complement of resources; each enables a more comprehensive view of the job and a better installation execution.

First, the traditional box is loaded with laser levels, shovels, a transit, lime, string line, and more. Second is the cerebral tool box where practical experience meld with an appreciation of equipment capabilities, technology tradeoffs, and the vision to recognize the site's opportunities and limitations.

The last and newest toolbox is the hard-wired CPU on under the desk or carried in the palm that enables faster, more accurate estimating of materials and task-times, faster, better-looking proposal preparation, job cost tracking, and more. It is also a communications tool by which to receive contacts from potential customers and send information in response.

A valuable resource

A site diagram with distances to each component from two fixed reference points, all manufacturers' warranties, a copy of the permit, a warranty statement with contact information from the installer, and a simplified service interval recommendation sheet round out this final resource for the customer.

An eye on details

While every resource may not be applicable to every job, a true professional knows when and how to selectively use the most appropriate tools. Seldom will a professional be heard saying, "I wish I had a digital whatchamacallit for this one." Often, he will have several tools that could do the job and can select the one best suited to each set of job conditions. Many installers say that the actual installation activities are the most enjoyable part of the job. Working outside with the aroma of freshly turned soil, hydraulic fluid and PVC solvent in the air, the sliding rattle of aggregate tumbling from the bucket in to the excavation, and the feeling of accomplishment when water jets to a common height from each lateral end cleanout just can't be beat!

Yet even after the site is backfilled and graded and the tender shoots of grass are poking thru the straw mulch, the most critical operational details may still not be completed. The homeowner briefing is an opportunity - indeed, a requirement in some jurisdictions - for the professional installer to impart essential knowledge on the system's new owner.

This is where the do's and don'ts of system operation are explained. A walk over familiarizes the owners with the locations of the system components, their respective functions, and specific operation and maintenance requirements. The homeowner packet the professional has assembled will include all the information covered in this meeting.

If the installer also offers pumping services, or has a relationship with a professional pumper, a referral card, first pump-out discount coupon, and contact information will also be provided.

The professional installer is indeed a valuable resource that landowners will recognize and value - before, during and after installation. They will tell their friends and new neighbors, and that good will in the community will go much farther than any job done by a one-day wonder. The professional also becomes known in the regulatory community, and his work is appreciated there as well.

Problem-free

When a system shows signs of problems, a common question is, "Who installed this system?" Often, the answer points to a specific and repeating problem that a particular installer has included with every job. It may be installation during a period of excessive soil moisture; it may be a poorly supported effluent delivery line that has snapped; it may be any number of things.

Some installers become known by the problems they build; some become known for their problem-free installations. It's not hard to predict which one, in the long run, will prosper in business, and which one will elevate the stature of the industry.

Gil Longwell is executive director of the Pennsylvania Septage Management Association. He can be reached at 717-763-7762 or by email to paseos@aol.com

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