

The Utah WaTCH

Wastewater Training Center Happenings

Utah State UNIVERSITY

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Utah Water Research Laboratory Hosts On-Site Wastewater Treatment Forum

The Utah On-Site Wastewater Treatment Training Center at the Utah Water Research Laboratory (UWRL) recently sponsored the first-ever on-site wastewater treatment forum for representatives from the intermountain west as part of its continuing outreach and educational program for on-site wastewater technology. The two-day forum, held at the end of July at Utah State University, brought together over forty on-site wastewater professionals from Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming to discuss such common issues as resources, regulations, and research. The goal, according to Dr. Ronald Sims, Director of UWRL, was to establish a communications network so states in the intermountain west can exchange information, develop collaborative opportunities, and

learn about on-site wastewater treatment advances in other locales. This goal was echoed by forum attendees, who expressed a need for a concerted, regional effort to address on-site wastewater treatment problems.

A number of nationally recognized on-site wastewater experts addressed the forum on the availability of resources, information, and organizational support on the national level. These included keynote speaker, Dr. Mike Hoover, Director of the National Training Center for Land-based Technology and Watershed Technology at North Carolina State University, Raleigh; Dr. Richard Phalunas, West Virginia State University, NETCSC (National Environmental Training Center for Small Communities)/NSFC (National Small Flows Clearinghouse); Ted Loudon, President of NOWRA (National On-Site Wastewater Recycling Association); Dave Lenning, NOWRA Treasurer and Director of the Northwest On-Site Wastewater Treatment Training Center, University of Washington; and Bill Gregory of AIM (Association of Installers and Manufacturers).



Dr. Richard Phalunas, representing the National Environmental Training Center for Small Communities (NETCSC) and The National Small Flows Clearinghouse, addresses the forum participants.

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Their overall emphasis was on the advantages of networking and communications among on-site practitioners—from the engineer to the installer to the homeowner.

Following a panel discussion and question-and-answer period, Ted Loudon facilitated a session on policy and regulations during which Jay Pitkin, Utah Department of Water Quality; Dennis McKenna, Montana Department of Environmental Quality; Bob Erickson, Idaho Department of Environmental Quality; Chuck Graf, Arizona Department of Environmental Quality; Ron Ewald, Wyoming Department of Environmental Quality; Dr. Victor Hasfurther, University of Wyoming; and Lloyd Walker, Colorado Issues Review and Task Force, each addressed in detail the policy and regulatory history in their respective states. Policy and regulatory status varied widely, and while several states have strong regulations in place, the majority are struggling to push for more formal regulations than the loose compilation of policy guidelines that they are currently operating under.

The goal, according to Dr. Ronald C. Sims, Director of UWRL, was to establish a communications network so states in the intermountain west can exchange information, develop collaborative opportunities, and learn about on-site wastewater treatment advances in other locales.

Outreach, research, and education were the focus of the forum's second day session, facilitated by UWRL's Darwin Sorensen. During the session, Roy Mink, Idaho Water Resources Research Institute; Gretchen Rupp, Montana State University; Ron Sims, UWRL; Adrian Hanson, New Mexico State University; and Paul Trotta and Justin Ramsey, Northern Arizona University, each addressed the research, outreach, and educational thrusts being carried out in their respective states. Rupp discussed a number of research projects in Montana, including one dealing with nitrogen removal



Ted Loudon, Michael Hoover, Bill Gregory, David Lenning, and Richard Phalunas (from left to right), were members of the discussion panel of representatives of national on-site wastewater support organizations .

and another on analysis of the performance of alternative systems in cold climates. Idaho, like Montana, has established an effective WET (Water Education for Teachers) program and expends a lot of effort teaching environmental management methods to youth, according to Mink. Utah, too, has a significant outreach program, including workshops taught through the On-Site Wastewater Treatment Training Center by soil scientists Peg Cashell and Judy Sims of the UWRL. New Mexico's Hanson addressed the problem of poverty in his state where a serious lack of resources means homeowners are sometimes unable to put in even the simplest of conventional systems and maintain them properly. Trotta and Ramsey gave a brief history of the concept, design, and actual construction of the Northern Arizona Treatment Center in which they outlined the stumbling blocks and pitfalls they encountered trying to make the treatment center a reality. Though the center is up and running and is a very successful engineering tool for students, Trotta advises would-be on-site educators to think twice before attempting such a project in the middle of an existing university campus.

A major outcome of the forum was a summary list of the intermountain states' top priorities for on-site wastewater training, many of which were similar. Density and its cumulative effects topped the list, along with providing more effective educational outreach, performing better site characterization, improving

Operations and Maintenance, better monitoring of complex systems, and determining loading rates. Percolation testing and its value and reliability were also cited as an on-going concern. While most states shared these as priority issues, several others had unique concerns, such as the abundance of specific nutrients (nitrates and phosphates) in their ground water, licensing and certification issues, persuading legislatures to turn "guidelines" into rules, and the regulatory problems associated with sparsely populated locales.

The forum concluded with attendees agreeing to forward their education and outreach priorities to UWRL's Steve Iverson, manager of the Utah On-Site Wastewater Treatment Training Center, for inclusion in the Proceedings. That document is currently being assembled and will be mailed out to attendees in the near future. The document will also be available on the internet at <http://www.engineering.usu.edu/uwrl/training/>.

Manager's Corner

We would like to introduce the concept of a new on-site wastewater organization in Utah that we believe can assist in the progress of our on-site wastewater treatment industry - that of a formal Utah on-site wastewater association. Currently we have governmental, private sector, and not-for profit organizations in Utah that promote high principles of stewardship of our land, water, and other natural resources and that have been doing extraordinary service for decades within their specific areas of interest. However, we are not aware of any groups on a state-wide level that are devoted principally to the advance of the on-site wastewater treatment industry and that promote such principles as uniform standards of design, installation, and servicing of on-site wastewater systems, sharing of skills and interests among on-site wastewater professionals and homeowners, or coordination of efforts of other professional stakeholders in on-site wastewater treatment and disposal.

Other states in the nation have faced similar circumstances in their states, as we now face, of population growth, shifts of that population into areas not accessible by centralized sewer systems, and the need for environmentally sound wastewater treatment and

disposal methods and systems in various soil suitability situations. One component of their approach to these situations has been the formal organization of a state on-site wastewater association. Utah does not currently have such an association in place. We certainly see evidence in Utah of a net population growth, shifts of that population growth to canyons and other rural areas, and the need for continued professional approaches to responsible handling of wastewater treatment in those areas. We all enjoy the high degree of commitment to address these situations by our local public health department personnel and our state environmental regulators, all of whom continually take active measures to address these needs. To assist those efforts and the efforts of many others, a statewide wastewater association could serve to bring together all those in the state with a stake in addressing these needs and to coordinate their diversity of skills, perspectives, and resources in order to work together to improve on-site wastewater treatment and disposal in Utah. With such a team approach, we can continue to enjoy the pristine quality of our ground water and surface water in this diverse western region of mountains, basins, plains, and valleys.

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Interactive Poster on NSFC WWW Site Features On-Site Information

An interactive poster has been developed by the National Small Flows Clearinghouse (NSFC) at West Virginia University that allows individuals to utilize the World Wide Web to obtain educational materials about on-site and small community wastewater treatment and disposal options.

The poster, *Small Community Options and Resources*, depicts wastewater treatment options as well as resources about such topics as wastewater management, environmental training, and funding.

Some of the specific topics that are featured include septic systems, sand filters, alternative sewers, home

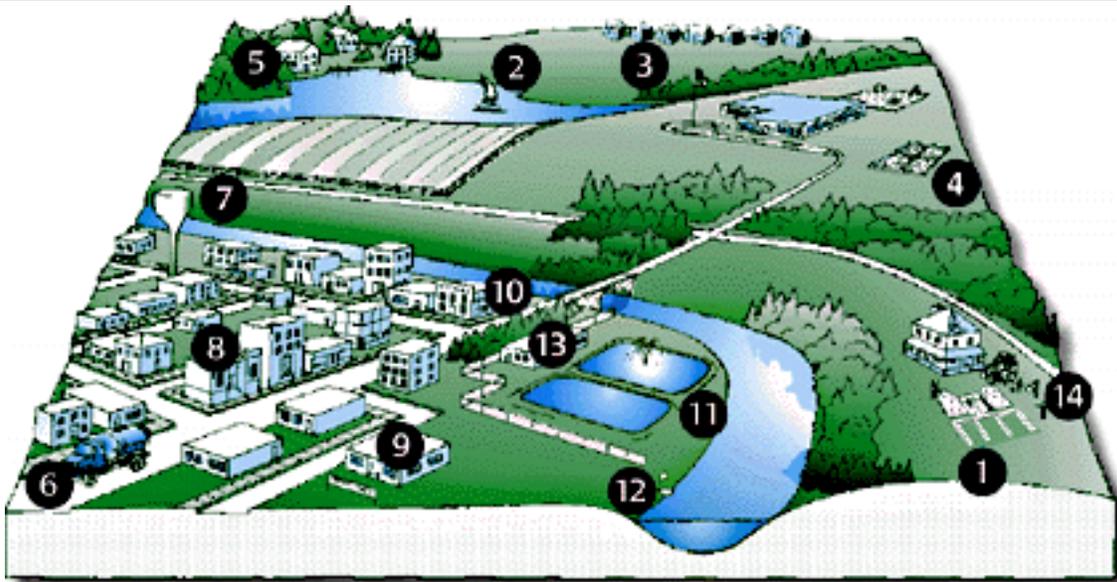
aerobic system units, septic system maintenance, management of on-site wastewater treatment systems, and the use of lagoons for wastewater treatment. In addition, there is also information about public health, financing and funding for wastewater and water systems, training for system operators and maintenance staff, and general wastewater news and information.

Selecting any of these choices (which are shown as graphic icons) will lead the user to detailed information from NSFC newsletters or reports.

The poster is located on the Internet at [http://www.estd.wvu.edu/nfsc/NSFC_optresourc.html].

For additional information, contact the Clearinghouse at (800) 624-8301 or at <nsfc_orders@estd.wvu.edu>

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|---|---|
| 1. Septic Systems | 9. General Wastewater News and Information |
| 2. Public Health | 10. Managing On-site Systems |
| 3. Alternative Sewers | 11. Lagoons |
| 4. Sand Filters | 12. Combined Sewer Overflows (CSOs) |
| 5. Home Aerobic Wastewater Treatment | 13. Training for System Operators and Maintenance Staff |
| 6. Septic System Maintenance | 14. Hiring Consultants |
| 7. Drinking Water | |
| 8. Financing and Funding for Water and Wastewater | |

Update on Proposed Revisions to Utah's Individual Wastewater Disposal System Rules

Late in 1998, the Division of Water Quality of the Utah Department of Environmental Quality (Utah DEQ) and the Local Health Department Advisory Group (formerly called the Wastewater Disposal Technical Review Committee) agreed that the rules for on-site wastewater treatment systems (R317-501 to 513, *Individual Wastewater Disposal Systems* of the Utah Administrative Code) required changes. The Advisory Group and the Division began working on eighteen different issues. Of these issues, six issues will be addressed by the current revision proposal, including septic tank watertightness testing, gravel specifications, the use of effluent filters, testing of each lot in a proposed subdivision as part of a subdivision feasibility study, clarification on groundwater table monitoring, and reorganization of the rule to improve usefulness. The subject matter in the revised rule will be organized into three major areas:

1. Administrative requirements.
2. Design, materials and construction requirements.
3. Alternative and experimental technology procedures and requirements.

As discussions continued, qualifications of designers and testers were also clarified, along with correction of errors and renaming of the rule to the *Onsite Wastewater Systems Rule* to broaden the coverage to include conventional and new technologies or configurations in the future.

The proposed revisions are currently being evaluated by the Advisory Group in a third round of review, with the Division expecting a final approval from that group on or before October 1, 1999. The Division hopes to then take the proposed changes before the Utah Water Quality Board on October 15, 1999 with a request to begin the rule making process, viz., preliminary filing with the Division of Administrative Rules with a 30-day public comment period. Because of the complexities of the filing process, other approaches are being considered to simplify the administrative process.

As the rule making gets underway, there is a goal to provide the rule in a technical report format that would include guidance, policies and if practicable, history on each segment in order to improve the utility of the rule to administrators, applicants and designers.

The document will be available from the Division of Water Quality and possibly on the Internet website of the Utah DEQ following action by the Water Quality Board. You may contact Kiran L. Bhayani, Manager of the Design Evaluation Section, for further information on availability of the document and feedback on the issues proposed for the change. He may be reached at (801) 538 6080, by fax at (801) 538-6016 or by e-mail at <kbhayani@deq.state.ut.us>.

DEQ Search for On-site Wastewater Engineer Continues

The Division of Water Quality of the Utah Department of Environmental Quality recently reopened the job search for an environmental engineer to work in the on-site wastewater treatment program. Gennaro Dicaldo, who had been previously selected for the position, as reported on the last issue of the Utah WaTCH, declined in order to take another job. The duties of the position include technical assistance and consultation to local health department staff and the general public on on-site system rules, policies, practices, and technologies. The appointee will also conduct evaluations of new technologies and trends, current industry and statewide practices, and available products for on-site treatment systems.

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Evaluation of a Soil Profile: Parlo Series

Editor's note: As a new newsletter feature, we will periodically select a Utah soil type, and using soil survey information, evaluate the potential of the soil to treat and dispose of wastewater from on-site systems.

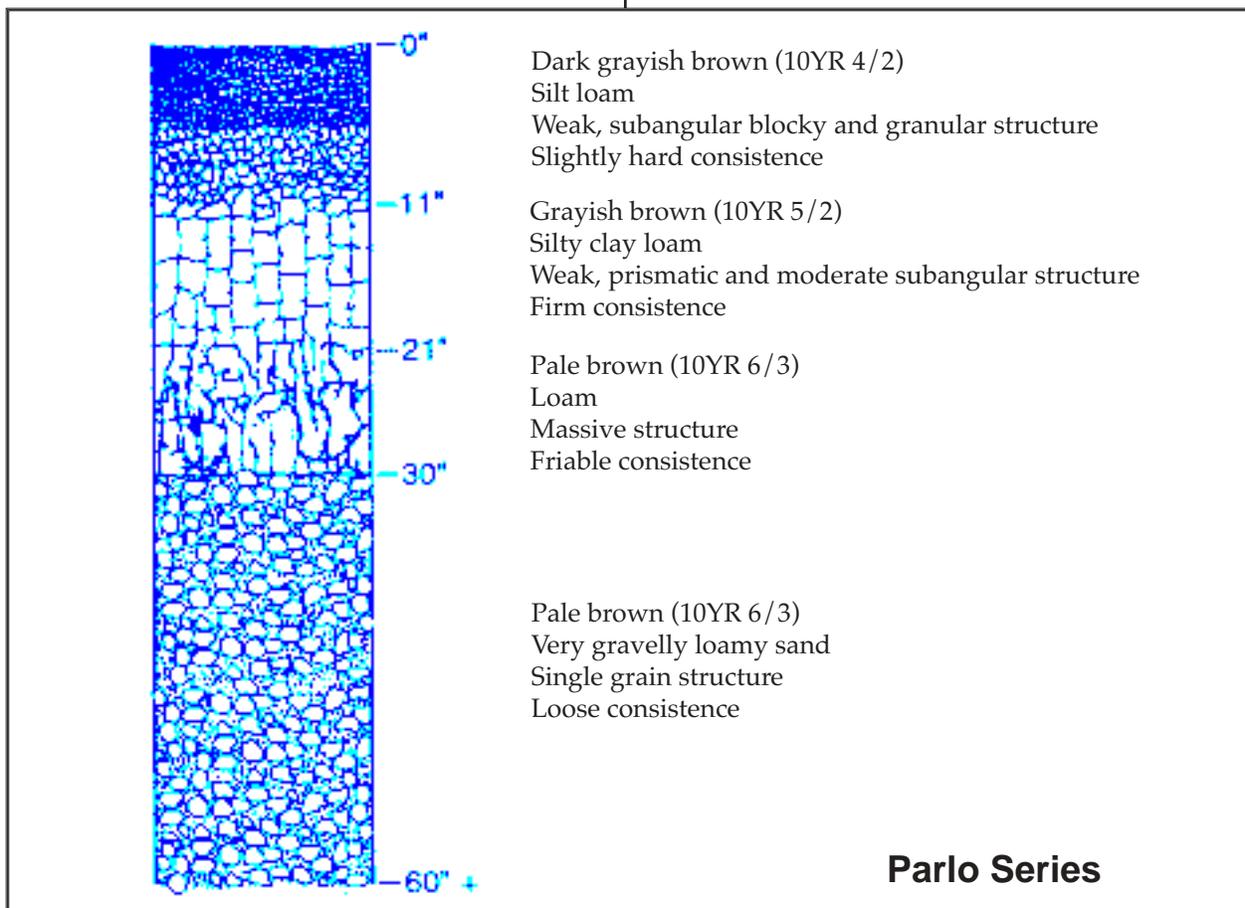
The Parlo Soil Series consists of well drained soils that formed in mixed lake sediment derived from limestone, sandstone, and quartzite. It occurs on medium and high lake terraces at elevations of 4500 to 5100 ft., with slopes ranging from 0 to 10%. About 3000 acres of the Parlo Series occur in Cache and Box Elder Counties.

The Cache Valley Area, Utah, Soil Survey Report gives this soil a slight limitation for septic tank filter fields in the 0 – 30 inch zone, and a severe limitation

below 30 inches because of the possibility of ground-water contamination due to rapid permeability.

Assume that your site evaluation matches the representative profile for this soil series. Based on the information given in the soil survey report, we can make some generalizations about the use of this soil as a soil absorption field. The soil above 30" appears to be suitable for a conventional on-site system. In this zone, wastewater would move through the soil slowly enough to treat wastewater, yet quickly enough to remove the water. Even though the profile has a silty clay loam texture (high clay content) in the 11 – 21 inch zone, sufficient structure exists to allow movement of the water. Water would also percolate through the massively structured 21 – 30 inch zone because of the coarser texture (loam).

However, because of the abrupt boundary at 30 inches and the underlying coarse textured soil, the water will not move into the substratum until the soil



above it is saturated. The matric potential (tension) in the finer-textured soil in the 0 – 30 inch zone is stronger than gravitational pull and the relatively weak matric potential exerted by the very gravelly loamy sand. Therefore, water can only move into the substratum when the soil above saturates, and water is able to move by gravity. This would greatly reduce the flow of water through the profile and may even result in surface seepage or sewage backing up into the home as the trenches become filled.

Installing trenches deeper than 30 inches may also present some problems. Wastewater would move away quickly enough for disposal, but may move too rapidly for treatment, resulting in surface or ground-water contamination. Since the soil survey report only gives the soil characteristics to 60 inches, we don't

know what lies below this material (although it does extend beyond 60 inches). If the gravel and sand continues for an extended depth, and if ground water is shallow or surface waters are in close proximity to the system, we can assume that wastewater will not be held in the soil long enough for treatment, and contamination may occur.

A possible design approach for this site is to install long, shallow trenches. This design would optimize the treatment capability of the upper soil horizons (where there are more microorganisms to accomplish degradation of organic materials and pathogens, and the potential for evapotranspiration of the water to the atmosphere is greater) and spread the wastewater over a large area so that higher localized saturation under the trenches would not occur.

On-Site Wastewater Treatment Satellite Conference

More than 25% of the homes in the United States use on-site systems to treat wastewater. Wastewater generated by residences may pose a serious threat to human health and may degrade surface water and groundwater quality if not properly treated. Conventional septic systems do an excellent job of treating wastewater when properly located, designed, installed, operated, and maintained.

However, in some residential situations with small lots, shallow bedrock, high ground water, or poor soils, conventional septic systems may not provide adequate treatment. Solutions to wastewater problems in these situations may be found by using alternative treatment methods or by treating wastewater for a group of homes on a nearby site.

The University of Minnesota Extension Service will be providing alternative treatment information to home

and cabin owners, local elected officials and staff, and industry professionals via a live satellite conference on Thursday, October 28, 1999, from 6:00 p.m. - 8:00 p.m. (Mountain Standard Time). Conference participants will learn how and when alternative treatment systems such as single-pass and recirculating sand and peat filters, constructed wetlands, aerobic tanks, and drip irrigation might be used to solve problems. Treatment results from research projects, interviews of homeowners using these systems, and discussion with local officials permitting and monitoring the systems will be featured. In-studio experts will present additional information and respond to participant questions via telephone or fax.

Four downlink sites in Utah will be available for attending this broadcast, and a member of the local health department will assist with the event at each site. There is no fee for attendance. The transmission will be received at the following locations:

Davis County Health Department
Room 216
28 East State Street
Farmington, UT
Facilitator: Brett Shakespear

The Utah WaTCH

Tooele County Health Department

Tooele County Extension Office - Conference Room
151 North Main
Tooele, UT
Facilitator: Bryan Slade

Wasatch City - County City Health Department

Wasatch County Administration Building
Downstairs Meeting Room
Heber City, UT
Facilitator: Richard Jex

Bear River Health Department

Agricultural Science and Technology Education
Building - Room 108
1498 North 800 East
Logan, UT
Facilitator: Steve Iverson

If others in Utah want to receive the broadcast or to assist with a local downlink site, please contact Steve Iverson at (435) 797-3159 or e-mail: siverson@cc.usu.edu

If others outside Utah wish to participate, contact Ken Olson at the University of Minnesota Extension Service at (800) 719-2825.

Workshops Scheduled for October 1999

The Utah On-Site Wastewater Treatment Training Center will conduct two workshops at the Crossroads Senior Citizen Center in Roosevelt, Utah on October 19-21, 1999.

Basic Site Evaluation Techniques and Percolation Test Training for On-Site Wastewater Treatment is a two-day course that will emphasize assessment of soil characteristics and application of those characteristics to the ability of a soil to treat and dispose of wastewater. This course is designed for those who are interested in learning the fundamentals of soil science as related to on-site wastewater treatment as well as the tools necessary to perform an accurate evaluation of a site for potential installation of an on-site wastewater treatment system.

The first day includes classroom discussions and demonstrations. Topics will include soil formation,

texture, structure, mottling, and permeability. Participants will receive hands-on experience in determining these soil properties. The second day consists of an all-day field session. Activities will include evaluation of site characteristics and soil profiles for potential use for on-site wastewater treatment systems and percolation test training.

Fundamentals of On-Site Wastewater Treatment Systems is a one-day classroom course that will include discussions and demonstrations on composition of wastewater (including grey and black water), septic tank construction and maintenance, effluent filters, wastewater distribution and treatment in conventional soil absorption systems, design of trenches and beds, use of alternative systems in Utah, and water conservation techniques.

Further information on these courses can be obtained from Steve Iverson at (435) 797-3159, email: <siverson@cc.usu.edu>. You can also visit our web site at [<http://www.engineering.usu.edu/uwrl/training/workshop.html>].

Calendar of Events

October 18-19, 1999

Planning for Water from the Town Up, 5th Annual Utah Ground Water Conference. Zion Park Inn, Springdale, UT. Contact: William Damery, General Chairperson, Utah Department of Environmental Quality at (801) 538-6032; e-mail: <wdamery@deq.state.ut.us>.

October 19-20, 1999

Workshop: *Basic Site Evaluation Techniques and Percolation Test Training for On-Site Wastewater Treatment*. Crossroads Senior Citizen Center, Roosevelt, UT. Utah On-Site Wastewater Treatment Training Center. Contact: Steve Iverson at (435) 797-3159; e-mail: <siverson@cc.usu.edu>; Internet: [<http://www.engineering.usu.edu/uwrl/training/workshop.html>].

October 19-21, 1999

On-Site Wastewater System Technology: Teams, Tools, and Training. Fifteenth Annual On-Site Wastewater Treatment Conference, North Carolina State University, Raleigh, NC. Contact: Joni Tanner at (919) 513-1678 (voice); (919) 515-7494 (fax); or e-mail: <joni_tanner@ncsu.edu>.

October 21, 1999

Workshop: *Fundamentals of On-Site Wastewater Treatment Systems*. Crossroads Senior Citizen Center, Roosevelt, UT. Utah On-Site Wastewater Treatment Training Center. Contact: Steve Iverson at (435) 797-3159; e-mail: <siverson@cc.usu.edu>; Internet: [<http://www.engineering.usu.edu/uwrl/training/workshop.html>].

October 22-23, 1999

Septic System Basic Training and Inspector Certification Course. National Association of Waste Transporters (NAWT), Reno, NV. Contact: (800) 236-NAWT; Internet: [<http://www.NAWT.org>].

October 28, 1999

The Next Generation of Sewage Treatment ("Flushing in the New Millennium"). On-site sewage treatment satellite conference, University of Minnesota Extension Service, 6 - 8 p.m. Sponsored in Utah by the Utah On-Site Wastewater Treatment Training Center. Contact: Steve Iverson at (435) 797-3159 or e-mail:

<siverson@cc.usu.edu>. See p. 7 & 8 for information on downlink locations in Utah.

October 31-November 4, 1999

American Society of Agronomy / Crop Science Society of America / Soil Science Society of America 1999 Annual Meetings. Salt Lake City, UT. Contact: David Kral at (606) 272-8080; Internet: [<http://www.asa-cssa-sssa.org/olr99/>].

November 4, 1999

The Next Millenium's Landscape? 51st Annual Convention, Utah Association of Conservation Districts, Provo, Utah. Contact: Gordon Younker at (435) 753-6029, ext. 31 or Sylvia Talbot at (435) 753-6029, ext. 8.

November 4-6, 1999

New Ideas for the New Millennium. 8th Annual National Onsite Wastewater Recycling Association (NOWRA) Fall Conference & Exhibit. Jekyll Island, GA. Contact: NOWRA Headquarters at (800) 966-2942; e-mail: <103061.1063@compuserve.com>; Internet [<http://nowra.org>].

November 4-5, 1999

Conference of Local Environmental Health Administrators (CLEHA), St. George, UT. Future CLEHA meetings are scheduled in 2000 for Feb. 17-18 in Wendover; May 18-19 in Moab; and Aug. 10-11 in Provo. Contact: Joel Hoyt (CLEHA President) at the Bear River Health Department at (435) 753-5135.

November 8-9, 1999

Seminar: *Decentralized Sewage Treatment: Alternatives to the Big Pipe*. British Columbia Water and Wastewater Association, Burnaby, BC. Contact : (604) 540-0111 (voice), (604) 540-4077 (fax), e-mail: <bcwwa@bcwwa.org>; Internet: [<http://www.bcwwa.org>].

January 12-15, 2000

Small Drinking Water and Wastewater Systems: Technology for the 21st Century. Technology Expo and International Symposium, National Sanitation Foundation (NSF) and the Rural Water Research and Education Foundation (RWREF), Phoenix, AZ. Contacts: Joseph Cotruvo at NSF International: (202) 289-2140; e-mail: <cotruvo@nsf.org> or Diane Snyder at RWREF: (505) 830-1669; e-mail: <rwref@nm.net>.

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February 16-17, 2000

3rd Southwest On-Site Wastewater Conference & Exhibit at Laughlin, NV. Contact: Dan Smith, Conference Chairman: (520) 226-2713 (voice); (520) 226-2711 (fax).

February 16-19, 2000

20th International Pumper & Cleaner Environmental Expo. Cole Inc., Nashville, TN. Contact: (800) 257-7222 (voice); (715) 546-3786 (fax); Internet: [<http://www.cleaner.com>] or [<http://www.pumper.com>].

March, 2000

Basic Site Evaluation Techniques and Percolation Test Training for On-Site Wastewater Treatment and Fundamentals of On-Site Wastewater Treatment Systems. Cedar City, UT. Utah On-Site Wastewater Treatment Training Center. Contact Steve Iverson at (435) 797-3159 or by e-mail at <siverson@cc.usu.edu>.

June 15-18, 2000

Onsite Wastewater Systems Conference. National Environmental Health Association, Denver, CO. Contact: (303) 756-9090 ext. 0; Internet: [<http://www.neha.org>].

Septic System Information Package for Homeowners Available from NSFC

The National Small Flows Clearinghouse (NSFC) recently announced the release of a septic system information folder, which was developed by NSFC and reviewed by the National Onsite Wastewater Recycling Association (NOWRA) and the Pennsylvania Septic Management Association.

The Homeowner Onsite System Recordkeeping Folder (Item #WWBLPE37) provides a place to organize information about a septic system and its maintenance. On the cover of the folder are sections for recording permit and local health department information and household information (source of water, number of bedrooms, bathrooms, and residents, and use of garbage disposals, dishwashers, water softeners, and hot tubs) as well as a description of the system. This description consists of a checklist that covers the septic tank and pump tank sizes, soil treatment system dimensions, system accessories, and any additional treatment components. Inside the folder are sections for sketching the location of the system and recording names, addresses, and certification information on the

system's site evaluator, designer, installer, pumper, and operation and maintenance provider. Tips on safety and how to find a previously installed system are also included. On the back of the folder is a section to record system maintenance activities. The cost of the folder is only 40 cents.

For \$2 (Item #WWPKPE28), the folder can be obtained containing a packet of information that gives a homeowner a comprehensive overview of septic systems. Included are several brochures on how to maintain and use a septic system and how to prevent failures, three issues of the NSFC newsletter, *Pipeline*, that focus on septic system operation, maintenance, and inspection, and a fact sheet on the use of alternative, less toxic household cleaning materials.

To order either the folder alone or the complete information package, call the NSFC at (800) 624-8301 and request the product by item number. Orders can also be placed by e-mail at <nsfc_orders@estd.wvu.edu>.

This article was adapted with permission from an article printed in the September 1999 issue of *Pumper*.

Regional On-Site Wastewater Treatment Priorities Survey

On July 27-28, 1999, the Utah On-Site Wastewater Treatment Training Center hosted the Intermountain States On-Site Wastewater Treatment Forum (see page 1 for a summary report of the Forum discussions). State representatives presented concerns in their state in the areas of (1) on-site program policies and regulatory issues, (2) outreach activities and educational programs, and (3) research needs and opportunities. Participants gained a much better understanding of regional concerns and opportunities from these discussions. In order to further broaden our perspective of these regional concerns and opportunities, we would like to invite our readership to submit their perspectives of specific priorities in their state in these subjects. If you would like to share your perspective, would you complete and return the form to us? We will summarize the responses and include the summary on our website.

State: _____

Name: _____

Organization: _____

	<u>Focus Area</u>	<u>Concern</u>	<u>Priority of Concern</u>		
			<u>Critical</u>	<u>Mid-Level</u>	<u>Low</u>
1.	On-Site Program Policies and Regulatory Issues				
2.	Outreach Activities and Educational Programs				
3.	Research Needs and Opportunities				

Please return to: Ivonne Harris, Utah Water Research Laboratory, Utah State University, 8200 Old Main Hill, Logan, UT 84322-8200, or by e-mail at <iharr@pub.uwrl.usu.edu> or by going to our website and submitting the form at: [<http://www.engineering.usu.edu/uwrl/forms/survey.html>].

The Utah WaTCH

Manager's Corner

(Continued from Page 3)

We would like to introduce the concept of a new on-site wastewater organization in Utah that we believe can assist in the progress of our on-site wastewater treatment industry—that of a formal Utah on-site wastewater association.

Through the professional resources of the land-grant Utah State University and the Utah Water Research Laboratory, we have the capacity to assist in the formation of such an association. If you have an interest in this, would you please contact us with your questions, suggestions, or comments?

Steve Iverson
Manager

Utah State UNIVERSITY

Utah Water Research Laboratory
Utah On-Site Wastewater Treatment
Training Center

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Peg Cashell—Soil Scientist
Judith L. Sims—Environmental Biologist/Soil Scientist,
Newsletter Editor
Darwin L. Sorensen—Microbiologist
Blake Tullis—Hydraulic Engineer
Ivonne C. Harris—Information Dissemination Coordinator

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