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TEXAS A&M UNIVERSITY

New Waves

Texas Water Resources Institute's E-Newsletter
Breaking news about water resources research and education at Texas universities

July 30, 2009

Getting in Step workshops to cover watershed education and outreach

Getting in Step, a workshop on educating and motivating audiences to protect water quality, will be held in Houston, Austin and Dallas, on Sept. 22, 23 and 24, respectively.

These workshops, organized by the Texas Water Resources Institute (TWRI), developed and led by Tetra Tech, and funded by the U.S. Environmental Protection Agency, will teach participants how to conduct watershed outreach campaigns to help reduce nonpoint source (NPS) and stormwater pollution, improve water quality on a priority watershed basis, and facilitate greater total maximum daily load and watershed-based plan implementation.

"One of the most critical steps to improving water quality is obtaining stakeholder buy-in, support, and action," said **Kevin Wagner**, an associate director at TWRI. "This workshop does a great job of showing participants how to conduct effective watershed outreach campaigns to reach stakeholders and get their involvement."

The course will increase participants' outreach and social marketing knowledge and skills, identify opportunities for agencies and organizations to partner to conduct and improve outreach efforts, and promote the adoption of social marketing and outcome-based methods to improve effectiveness of outreach efforts targeted at adults.

Workshop attendees are encouraged to bring samples of their previous or current outreach efforts that relate to NPS pollution or watershed protection.

For more information or to register the workshops, visit TWRI's Training Course Web site or contact Wagner at klwagner@ag.tamu.edu.

Graduate students receive water research scholarships

The Texas Water Resources Institute (TWRI) recently funded Mills Scholarships to 10 Texas A&M University graduate students for the 2009-10 academic year to pursue water-related research.

TWRI's Mills Scholars Program, an endowed fund that supports research in water conservation and management, provided the $1,500 scholarships to the students to use for education-related expenses. TWRI uses the Mills Scholars program to encourage and assist current and prospective Texas A&M University graduate students addressing priority water resources issues facing Texas.

Students receiving the scholarships are:

- **Hannah Childress** and **Di Long**, Department of Biological and Agricultural Engineering
- **Bhavna Arora**, Water Management and Hydrologic Science
- **Takele Dinka** and **Leonardo Rivera**, Department of Soil and Crop Sciences
- **Chandana Damodaram, Celso Moller Ferreira, Marcio Hofheinz Giacomoni** and **Sanjay Tewari,** Zachry Department of Civil Engineering
- **Yixiao Liu**, Department of Landscape Architecture and Urban Planning

This year's Mills Scholars research includes such topics as using the hydrologic footprint model to model best management practices and determine downstream effects, examining the effects of land use, using UV light disinfection to reduce the concentration of tetracycline-resistant genes, and investigating the use of green roof technology to mitigate stormwater runoff.

Mills Cox, a former chairman of the Texas Water Development Board, funded the W.G. Mills Endowment, which provides the scholarships.

For more information on the Mill's Scholarship Program or to learn more about the students' projects, contact Cecilia Wagner, TWRI project manager, at 979.458.1138 or cawagner@ag.tamu.edu or go to http://twri.tamu.edu/mills.php.

Golf tournament raises funds for turfgrass studies

Golfers have a chance to raise money for turfgrass education and research at Texas A&M University while enjoying a competitive round of golf.

The Texas AgriLife Research and Extension Urban Solutions Center at Dallas will host the A&M Invitational Golf Tournament on Monday, Sept. 14 at the Brookhaven Country Club in Dallas.

Gene Stallings, a former Texas A&M football coach and current member of the Texas A&M System Board of Regents, is tournament host.

Since its inception in 1998, this tournament has raised more than $700,000 to support research, education and extension programs in turfgrass science within the Department of Soil and Crops Sciences at Texas A&M University through the Texas Turfgrass Research, Education and Extension Endowment.

The endowment, began initially by the Texas Turfgrass Association in 1997, has funded research on developing grasses and management systems that have less demand for water and pesticides and are environmentally friendly.

More information about the tournament is available at http://dallas.tamu.edu/tamuinvitational/.

TEEX develops ECLOX protocols to detect toxins in drinking water

Protecting and monitoring the quality of the state's drinking water supply is the goal of a joint effort by the Texas Commission on Environmental Quality (TCEQ) and the Texas Engineering Extension Service (TEEX)—an effort aimed at detecting a variety of toxins that could contaminate a community's water supply, either accidentally or intentionally. After 9/11, many public water systems across the state and nation acquired an ECLOX field analyzer to measure drinking water contaminants.

But there was a big problem, says TEEX Water and Wastewater Laboratory Instructor **Keith McLeroy**: the equipment came with minimal instructions and no protocols for establishing baseline data for comparing the ECLOX readings. TCEQ turned to the TEEX Water and Wastewater Program to establish baseline data for 24 public water systems in Texas, and to develop a protocol for effectively measuring possible contaminants. Following the 2008 TCEQ project in which TEEX developed specific protocols for the ECLOX luminometer, TEEX has become recognized for its expertise in ECLOX baseline data development, protocols and training.

"We are rewriting the ECLOX protocols, which will further enhance the overall effectiveness of the ECLOX luminometer as a multi-purpose analyzer for both security and daily monitoring of drinking water," McLeroy said.

Read the full story at www.teex.com.

Early registration for TAMMI conference nearing

The Texas Animal Manure Management Issues (TAMMI) Conference will be held Sept. 29-30 at the Austin Marriott North in Round Rock. Registration for the conference is $75 through August 1 and $125 there after.

The TAMMI Conference will provide education and information on proper animal manure management for environmental protection and a thriving animal industry in Texas, in the context of evolving regulatory and public relations environment. Continuing education units will be available to participants. For more information, see the TAMMI Web site.

New Mexico Conference

The 2009 New Mexico Water Research Symposium, a one-day technical symposium hosted by the New Mexico Water Resources Research Institute (NMWRRI), will be held on Aug. 11 at the Macey Center & Jones Annex, New Mexico Tech, Socorro, NM.

The registration fee is $20 per person, but the fee will be waived for students presenting a paper or poster. For more information on the symposium or to register, please go to the symposium Web site.

The Research Symposium is dedicated in fond memory of **Robert S. Bowman**, 1950-2009, member of the Symposium Planning Committee and longtime supporter of the New Mexico water community.

NMWRRI will also hold the 54th Annual New Mexico Water Conference Oct. 14-16 at the Isleta Casino and Resort, located south of Albuquerque. "Water Planning in a Time of Uncertainty" is the title of this year's conference.

Early registration is $175, due by Sept. 4, and full-time student registration is $75. Please visit the conference Web site for more information.

New Publications/ Papers

Evaluation of Canal Lining Projects in the Lower Rio Grande Valley, A. Karimov, E. Leigh, G. Fipps, Texas Water Resources Institute Report TR-353, 2009

Since 1999, seven irrigation districts in the Lower Rio Grande Valley of Texas have installed six different types of synthetic canal lining materials, totaling approximately 21 miles. In 2005, we began a program to track the long term effectiveness and durability of these lining projects and to document the damage caused by such factors as UV, animal traffic, intentional and unintentional vandalism, and normal irrigation district operational and maintenance activities. Each project was evaluated using a visual inspection process during which performance/condition ratings were assigned. Without question, the best lining system is a synthetic liner with a protective barrier of shotcrete. The synthetic liner significantly reduces seepage, while the shotcrete protects it from damage. This lining system needs little to no maintenance. There were two types of liners used: PVC and polyester. Each performed equally as well. Additional details are provided in this report, along with suggested considerations when planning a lining project. A summary of the findings for each individual lining project is presented in the Appendix B of this report which is published separately.

Evaluation of Smart Irrigation Controllers: Initial Bench Testing Results, C. Swanson, G. Fipps, Texas Water Resources Institute Report TR-354, 2009

A smart controller testing facility has been established by the Irrigation Technology Center at Texas A&M University in College Station. Six manufacturers donated controllers for initial laboratory set-up and evaluation. For evaluation purposes, the controllers were programmed for College Station, Texas using the virtual landscape as defined in the IA (Irrigation Association) SWAT (Smart Water Applicator Technologies) 7th draft testing protocol. However, the controllers could not be programmed with all the parameters required to define these virtual landscapes. The controllers were then run over an eight-week period. The results are compared to the actual ETo during the test periods and to the irrigation recommendations of the TexasET Network. The irrigation amounts produced by the controllers varied significantly, even for the same zone. In addition, all exceeded the irrigation recommendations of TexasET. Four of the controllers produced irrigation amounts that were higher than the ETo (potential evapotranspiration) that occurred during the test period. Such high irrigation amounts may be related to the source and values for the ETo used by the controllers and/or in the methodologies used to account for rainfall. The results will be used to establish protocols for further testing.

TWRI Water Resources Training Courses

5th Annual SWAT Conference & Workshops	Aug. 3-7, 2009
Texas Watershed Planning Short Course	Aug. 17-21, 2009
Getting in Step (Houston)	Sept. 22, 2009
Getting in Step (Austin)	Sept. 23, 2009
Getting in Step (Dallas)	Sept. 24, 2009

New Waves is an e-mail newsletter of Texas Water Resources Institute, part of Texas A&M University College of Agriculture and Life Sciences, Texas AgriLife Research, and Texas AgriLife Extension Service. **New Waves** publishes timely information about water resources news, results of projects and programs, and new water-related research projects, publications, papers and faculty, at universities in Texas.

If you have information for possible inclusion in **New Waves** please e-mail **Leslie Jordan** at lhjordan@ag.tamu.edu, or call 979.862.7139, and include your contact information. All submissions may be edited for grammar and style.

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