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New Waves

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

New Waves – June 30, 2009

Watershed planning short course Aug. 17-21 in Bandera

The Texas Water Resources Institute will be presenting a Texas Watershed Planning Short Course Aug. 17-21 in Bandera.

The course will be held at the Mayan Dude Ranch, 350 Mayan Ranch Rd., about 47 miles northwest of San Antonio.

"This is one of the few courses that builds upon the nine essential elements for watershed planning as identified by the Environmental Protection Agency," said **Kevin Wagner**, an associate director at the institute and course leader. "People attending this course will come out better prepared to develop plans according to EPA guidelines."

Well-considered, holistic watershed protection plans involving as many stakeholders as possible are becoming a widely-accepted approach to protecting Texas surface waters, Wagner said.

"The goal of the Texas Watershed Planning Short Course is to equip watershed coordinators and water professionals with the tools they need for effective watershed protection efforts," he said.

The course will address watershed protection planning, building partnerships, watershed assessment, and how to identify solutions and create and implement a plan.

Wagner added that the Texas State Soil and Water Conservation Board and Texas Commission on Environmental Quality, the two state agencies responsible for Texas' water quality, are financing the creation of more than a dozen watershed protection plans statewide.

"The course will benefit those involved or interested in watershed restoration and protection projects to improve the water quality of the state's rivers, streams and estuaries," said Aaron Wendt, the soil and water board's state watershed coordinator.

Upon completion, participants will receive continuing education units from the National Registry of Environmental Professionals.

Course registration is $350 if postmarked by July 17 and $375 thereafter. Registration does not include lodging and meals.

A block of rooms at the Mayan Dude Ranch has been reserved at a special rate of $121 per night, which includes all meals as well as lodging. Reservations must be made by July 31 to receive this special rate, and participants should identify themselves as short-course attendees when making reservations.

The upcoming short course is the third such program to be held in Bandera.

For more information, visit http://watershedplanning.tamu.edu/ or contact **Wagner** at klwagner@ag.tamu.edu or **Courtney Swyden** at cswyden@tamu.edu.

(Story from AgNews)

WRAP Course offered July 8-10

Texas Water Resources Institute (TWRI) is offering River/Reservoir System Modeling with WRAP, a continuing education course, July 8-10 at Texas A&M University.

The two and a half-day course will begin at 1 p.m. on July 8 and end at 5 p.m. July 10. It will be held in Room 214 of the Centeq Research Plaza, 1500 Research Parkway in College Station.

The course is designed for engineers and scientists employed by water agencies and consulting firms working in Texas or worldwide. The course will include lectures, discussions and computer modeling exercises that will cover WRAP in its entirety, focusing on fundamentals.

WRAP is a generalized modeling system for simulating the development, management, allocation and use of the water resources of a river basin. The public domain WRAP software and reference, users, and supplemental manuals are available at http://ceprofs.civil.tamu.edu/rwurbs/wrap.htm.

Dr. Ralph Wurbs, P.E., will serve as an instructor for the WRAP course. Wurbs, a professor of civil engineering and TWRI associate director, developed WRAP and has been involved with its continued development and application since its inception in the late 1980s. **Richard Hoffpauir** will also be teaching the course, and has several years of consulting experience in applying WRAP both in Texas and abroad. He is nearing completion of his doctorate at Texas A&M with his dissertation research focusing on expanding WRAP modeling capabilities.

Early registration of $875 must be received before June 19 and all registration received on or after June 19 is $900. To register online visit http://watereducation.tamu.edu/. For more information contact Swyden at cmswymden@ag.tamu.edu or 979.845.1851.

Two Texas A&M Continuing Education Units will be awarded for completion of the course. Attendees are responsible for their own hotel reservations and travel. Information regarding local accommodations is available at the TWRI Training Course Web site.

TAMMI Conference to be held in Round Rock

The Texas Animal Manure Management Issues (TAMMI) Conference is scheduled for Sep. 29-30, 2009, at the Austin Marriott North in Round Rock. Registration for the two-day event is $75 until Aug. 1 and $125 there after.

The TAMMI Conference will provide education on proper animal manure management for both a thriving animal industry and environmental protection efforts in Texas, in the context of an evolving regulatory environment. The two-day program will include keynote speeches, information on federal and state regulations and policies affecting livestock and poultry manure management, and regulatory and engineering ethics training.

The latest research on the following specific topics related to manure and mortality management issues will also be provided:

- Manure Nutrient Balances and Flows
- Manure Management and Water Quality
- Manure Management and Air Quality
- Disposal of Catastrophic Animal Mortality - Lessons from Hurricane Ike
- Advanced Manure Conversion: Bioenergy and Value-Added Products
- AFO Siting Considerations and Performance of Manure-Management Systems

Texas nutrient management specialists may earn 8.75 continuing education units. Managers of concentrated animal feeding operations may earn nine Dairy Outreach Program Area credits. And professional engineers may earn one hour of ethics training and eight professional development hours.

For more information, visit the TAMMI Web site.

From Dust Bowl to Mud Bowl conference scheduled for September

"From Dust Bowl to Mud Bowl: Sedimentation, Conservation Measures and the Future of Reservoirs," a conference sponsored by the U.S. Department of Agriculture's Cooperative State Research, Education, and Extension Service, Kansas State University, and the Soil and Water Conservation Society, is scheduled for Sep. 14-16, in Kansas City, Mo.

The conference seeks to expand opportunities for multi-state interdisciplinary collaboration regarding conservation practices and the sustainability of reservoirs, examine current scientific research and technological issues related to sediment loading, and formulate recommendations regarding strategies to address sedimentation in reservoirs.

The Texas Water Resources Institute (TWRI) is part of the conference planning committee, and TWRI Acting Director **Dr. B.L. Harris** will be leading a conference session on "Consequences of Nutrient Loading and Sedimentation on Eutrophication."

See the conference's Web site for more information.

Water issues and technologies workshop

A short course titled "Water Issues and Technologies: Process Water, Wastewater and Desalination - A Hands-on Workshop" will be held Aug. 2-4, at Texas A&M University. The 5th annual short course is presented by the Separations Science Lab, Department of Petroleum Engineering, Global Petroleum Research Institute and Texas Water Resources Institute.

The workshop will include valuable information on the latest water pre-treatment technologies, membrane/filtration operations, and post-treatment technologies. Continuing education credits will be available to participants who complete the course.

For more information, visit the workshop's Web site.

McKinney, AgriLife Research and Extension unveil Green Gardens

The McKinney Green Gardens, a public demonstration of water conservation and green infrastructure in landscape design, officially opened on May 30. The gardens were created in an educational partnership between the city of McKinney and the Texas AgriLife Research and Texas AgriLife Extension Service Urban Solutions Center in Dallas.

The one-acre gardens were designed by the AgriLife Urban Solutions Center using research-based information and techniques, said **Clint Wolfe**, project coordinator with the center.

The grounds were designed to demonstrate that landscape, through proper plant selection, can be beautiful and conserve water at the same time, Wolfe said. The gardens will help educate children, homeowners, developers and landscapers about water-conservation practices.

"It is a beautifully designed collection of six small gardens that contain native plants and grasses or those well adapted to the North Texas environment," he said. "Visitors can stroll the property on winding paths or congregate in the center."

The gardens' educational program is supplemented by a free interactive Web site where visitors can view a layout of the grounds and review pictures and descriptions of plants and grasses. Learn more about the gardens at http://McKinneyGreenGardens.tamu.edu.

The McKinney Green Gardens project is a product of a public-private relationship between McKinney and the AgriLife Urban Solutions Center, Wolfe said. Forged in March 2007, the partnership combines the center's expertise and the city's desire to integrate water conservation policies and practices in an ever-growing community that imposes increasing pressures on the region's water supply.

Socolofsky wins hydraulic award

Dr. Scott Socolofsky, assistant professor in the Coastal and Ocean Engineering Program of the Zachry Department of Civil Engineering, received the 2009 Karl Emil Hilgard Hydraulic Award from the American Society of Civil Engineers during the Environment and Water Resources Institute Annual Congress May 17-21 in Kansas City, Mo.

He received the award for his paper, "Experiments on Mass Exchange between Groin Fields and Main Stream in Rivers," in the *Journal of Hydraulic Engineering*. According to Socolofsky, the

paper covered contaminant mixing problems in navigable rivers, where there is potential for accidental spills and the need for a predictive response capability.

"Since this paper, we've applied similar methods to several other shallow water flows to learn more about mixing in natural water bodies," Socolofsky said.

Socolofsky earned his doctorate in civil and environmental engineering from the Massachusetts Institute of Technology in 2001 and joined Texas A&M in 2003.

X. Ben Wu named Presidential Professor

Dr. X. Ben Wu, professor of ecosystem science and management at Texas A&M University's College of Agriculture and Life Sciences, has been named as one of two winners of the Presidential Professor for Teaching Excellence Award.

In addition to teaching courses and mentoring graduate students, Wu conducts research focused on landscape ecology, wetland restoration ecology, landscape pattern and hydrology in rangeland and urbanizing watersheds, and ecology education. He earned his degrees from Lanzhou University in China and the University of Tennessee, and after completing postdoctoral research at The Ohio State University, Wu joined Texas A&M in 1995.

Wu says that his teaching philosophy is centered on "a passion for teaching, genuine care for students, and well-designed materials and approaches to foster effective learning."

The award was established in 2003 to underscore the importance of teaching at a major research university and includes a stipend of $25,000, believed to be the highest in monetary value of its type in the nation.

(Story from the College of Agriculture and Life Sciences)

Call for papers: 2010 Land Grant and Sea Grant National Water Conference

The 2010 Land Grant and Sea Grant National Water Conference will be held Feb. 21-25, 2010, in Hilton Head Island, South Carolina.

Proposals for workshops and symposia are due July 15 and proposals for oral and poster presentations are due Sep. 15.

The conference will include presentations on the following topics: agricultural best management practices, rural and coastal environmental protection, conservation and resource management, watershed assessment and restoration, human dimensions of water resources. Additionally, 150-200 posters and exhibits will highlight results on research, education and extension programs addressing water quality and quantity issues locally, regionally and nationally. The conference will also include tours providing exposure to water resource management experiences on the Southeast Atlantic Coast.

The National Water Conference provides opportunities for water scientists, engineers, educators and managers to share knowledge and ideas, to identify and update emerging issues, and to network with leading researchers, educators and innovators from academia, government and the

private sector. The conference is hosted by a team of educators from Land Grant and Sea Grant institutions around the nation in cooperation with national program leaders from the U.S. Department of Agriculture and National Oceanic and Atmospheric Administration.

For more information, visit the conference Web site.

New Publications/ Papers

Precision Irrigators Network: On-Farm Research Demonstration to Evaluate Irrigation Scheduling Tools in the Wintergarden and Texas High Plains, Giovanni Piccinni, Daniel Leskovar, Wyatte Harman, B.L. Harris, Texas Water Resources Institute Report TR-351, 2009

Due to constraints such as water pumping and allocation limits, the need arose for growers in the High Plains and Wintergarden to shift their irrigation strategies from full water application to minimal use supplementing rainfall and available soil moisture. Recognizing the need for agricultural producers to become more efficient in their water use, the Texas Water Development Board funded this project, known as the Precision Irrigators Network or PIN II. Texas AgriLife Research and Extension scientists worked with growers to demonstrate the need for real-time knowledge of crop water use and the necessity of careful attention to the amount of water available to effectively irrigate and manage crops to optimize economical production. The results of this project continue to help High Plains and Wintergarden growers increase irrigation efficiency and improve irrigation strategies, as well as provide crop coefficients and water use requirements of agronomic and vegetable crops.

Soil Testing Following Flooding, Overland Flow of Wastewater and other Freshwater Disasters, Tony Provin, Sam E. Feagley, John L. Pitt, Mark L. McFarland, E-522, 2009

Freshwater flooding can seriously affect soil fertility and the physical and chemical properties of soil. This publication explains how to reclaim flooded soil. Having the soil tested for microbes, pesticides, hydrocarbons and other contaminants is an important step.

TWRI Water Resources Training Courses

Texas Watershed Coordinator Roundtable Meeting	July 8, 2009
River/Reservoir Modeling with WRAP	July 8-10, 2009
5th Annual SWAT Conference & Workshops	Aug. 3-7, 2009
Texas Watershed Planning Short Course	Aug. 17-21, 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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