



*Breaking news about water resources research and education at Texas universities*

**July 18, 2007**

### **Bacteria TMDL Task Force Report approved**

On June 29, the [Texas Commission on Environmental Quality](#) and the [Texas State Soil and Water Conservation Board](#) approved the recommendations of the Bacteria Total Maximum Daily Load (TMDL) Task Force and asked their agencies to update the TMDL guidance documents to reflect the recommendations. They also authorized establishing a multi-agency bacteria work group to examine the research and development needs identified in the task force report.

**Dr. Allan Jones**, director of the Texas Water Resources Institute, served as chairman of the seven-member task force and gave an overview of the report and its recommendations at the joint meeting.

Other members of the task force were **Drs. George Di Giovanni**, The Texas A&M University System Agricultural Research and Extension Center at El Paso; **Larry Hauck**, Texas Institute for Applied Environmental Research at Tarleton State University; **Joanna Mott**, Texas A&M University–Corpus Christi; **Hanadi Rifai**, University of Houston; **Raghavan Srinivasan**, Texas A&M University; and **George Ward**, The University of Texas at Austin. An expert advisory group of approximately 50 stakeholders and agency staff assisted the task force in developing the report.

The two agencies formed the task force in September 2006 to strengthen their efforts to clean up waters impaired by bacteria, which account for more than half of impairments listed in the Texas Water Quality Inventory and 303(d) List. To view the Bacteria TMDL Task Force Report, click [here](#).

### **Nominations for Water Conservation Advisory Council sought**

The [Texas Water Development Board](#) (TWDB) is seeking nominations for members to serve on the Water Conservation Advisory Council. The 80<sup>th</sup> Legislature directed TWDB to establish the council to serve as an expert resource to state government and the public on water conservation in Texas. The deadline for council recommendations is **July 31**. Each nomination should include a brief bio and contact information.

Members on the council will represent the 23 interest groups outlined in House Bill 4 and Senate Bill 3 including regional water planning groups, federal agencies, agricultural groups and municipal utility districts. Individuals will be selected based on their expertise and availability of time to devote to council activities.

For more information click [here](#), or contact Comer Tuck at [comer.tuck@twdb.state.tx.us](mailto:comer.tuck@twdb.state.tx.us) or 512-936-2343.

## **Regional water planning group solicits new members**

The Brazos G Regional Water Planning Group is soliciting nominations for two voting members with one member needed to represent environmental interests in the Brazos G Regional Water Planning Area. Nominations will be accepted until 5 p.m., **August 3**.

In selecting a voting member for the vacancy, the Brazos G Group will consider the nominee's qualifications to represent the interest category, willingness to devote the time necessary to participate in the Regional Water Planning process, and willingness to abide by the Bylaws. Nominees are invited to visit the [Brazos G website](#) for more information.

## **Fourth annual International SWAT Conference occurs in The Netherlands**

The fourth annual International SWAT Conference took place on July 2-6 in Delft, The Netherlands, in collaboration with United Nations Educational, Scientific and Cultural Organization (UNESCO) – IHE Institute for Water Education. The [U.S. Department of Agriculture's Agricultural Research Service](#) and Texas A&M University's [Spatial Sciences Laboratory](#) also helped sponsor the conference.

This four-day conference featured speakers on a variety of topics including agricultural management, sediment modeling, climate change and hydrological processes. Approximately 147 participants from 37 different countries attended.

Dr. Raghavan Srinivasan, director of the Spatial Sciences Laboratory and one of the conference organizers, said he was pleased with the results and level of participation.

"It was highly successful. There was an exchange in ideas and thoughts and people were extremely positive on how the SWAT model was able to simulate for their environment," Srinivasan said. "Many new ideas were presented that will be developed into action plans."

A regional conference is scheduled in China in September 2008 and the next international conference will be in the United Kingdom in 2009.

## **TWRI grant recipient develops a system to conserve industrial water**

Texas A&M University graduate student Arwa Rabie is working with her advising professor Dr. El-Halwagi from the Artie McFerrin Department of Chemical Engineering to develop a system to conserve water in an industrial setting.

Rabie, originally from Houston and a recipient of a \$5,000 2006-2007 Texas Water Resources Institute (TWRI) research grant, said that processing industries use high levels of fresh water and have a high wastewater discharge into rivers. This wastewater contains many contaminants and because of this the industries have a hard time meeting EPA regulations which may cause a portion of them to close or move to other countries.

"I have developed a systematic procedure to synthesize and schedule optimal batch water recycle networks," Rabie said. "I have developed two mathematical formulations that help me to design a water recycle network where water from sources can be stored in tanks and then dispatched to the appropriate units or sinks when needed."

"First, a structural representation has been developed to embed potential configurations," Rabie said. "In addition to sources and sinks, two sets of tanks have been introduced for storage and dispatch. This new arrangement overcomes previous research limitations."

According to Rabie's final report, this procedure can be applied to any industrial batch process – petroleum refineries, pharmaceuticals, textile and other processes.

Rabie said she hopes to complete her Ph.D. in the next two years and then work in industry. Her research was funded by TWRI through the U.S. Geological Survey as part of the National Institutes for Water Research annual research program. TWRI is the designated institute for water resources research in Texas.

For more information on Rabie's research, visit [USGS Research Grants](#).

### **Four Texas students selected to be Knauss Marine Policy Fellows**

Four Texas A&M University System students in marine science have been selected to be among the 52 Dean John A. Knauss Marine Policy Fellows for 2008. The fellowship is for a term of one year in Washington D.C.

**Jessica Beck** and **Lara Hinderstein** are doctoral students in the Department of Wildlife and Fisheries Sciences at Texas A&M University-Galveston. **Edward Gorecki** is working toward a master of public administration with an emphasis in environmental science from Texas A&M University-Corpus Christi and **Charlotte Hieke** is completing a master of science in oceanography at Texas A&M University.

The [Texas Sea Grant College Program](#), which is part of the National Sea Grant College Program of the National Oceanic and Atmospheric Administration (NOAA) and Texas A&M's College of Geosciences, nominated the students.

"I am extremely pleased that four outstanding graduate students from Texas universities have been selected for the 2008 Knauss Fellows class," said **Dr. Robert Stickney**, director of Texas Sea Grant. "Our four new Fellows will be joining an elite group, and we at Texas Sea Grant know that their year in Washington will be the first step in what will be outstanding careers."

For more information, click [here](#).

### **Galveston Bay Estuary Program announces grant funding**

The [Galveston Bay Estuary Program](#) (GBEP) of the Texas Commission on Environmental Quality announced the opportunity for eligible entities to secure grant funding for up to two years to perform Galveston Bay education and outreach education efforts.

The deadline for responding to this is **September 6**.

GBEP expects to award \$100,000 in fiscal year 2008 federal funds.

Eligible entities that may be interested in applying for a grant include: state agencies; colleges and universities; city and county governments; school districts; political subdivisions of the state (port authorities, river authorities, soil and water conservation districts, groundwater conservation districts); councils of governments and other regional authorities and non-profit 501(c)(3) organizations.

Interested parties are encouraged to apply [here](#).

## **New Publications/ Papers**

["Using Renewable Energy to Pump Water"](#)

**Michael Mecke** and **Juan Enciso**, Texas Cooperative Extension publication L-5457

Solar and wind power can be economical and environmentally friendly ways to pump water for homes, irrigation and/or livestock water wells. This publication explains how these pumps work, the advantages and disadvantages of using renewable energy sources and how to calculate pumping requirements.

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