Winter 2009

# Legislative Priorities Report

By: Morgan Lawrey

On January 13, 2009, the 81st Regular Session of the Texas Legislature convened in Austin. As with the 80th Legislative Session, water policy will again be one of the most important issues this legislature must tackle. Historic actions in the last legislative session regarding water conservation, environmental flows, reservoir site designation, and funding for the implementation of water management strategies in the 2007

State Water Plan were significant investments in the future of Texas.

As required by the Texas Water Code, the Texas Water Development Board (TWDB) must submit a report to the Governor and members of the legislature at the beginning of each legislative session. The report must include a statement of the agency's activities

and recommendations for necessary and desirable legislation.

This year's report summarizes TWDB's legislative priorities, which include changes in requirements for the Economically Distressed Areas Program, authorization to

issue and incur additional General Obligation Bonds, and a request to increase General Revenue appropriations to provide funding for the administration of the Development Fund Program.

In the report, TWDB emphasizes expanding the eligibility of applicants to the Water Infrastructure and Colonia Self-Help funds, developing guidelines for work on private property in disadvantaged communities, and

implementing possible financing from a federal economic recovery package.

The report also includes the agency's requests and suggestions regarding reservoir site acquisition, annual water loss audits, and the purchase of items for promotional purposes. Summaries of recommendations for interbasin transfers of surface water, establishment of the Floodplain Management Account, the State Participation Program, and water reuse

are also addressed. In addition, the report presents exceptional item requests, organized by topic and priority in conjunction with recommendations for legislation.

Prior to preparing this report, TWDB also submitted its Strategic Plan and Legislative Appropriations Requests to the Governor and legislature.

The report was distributed to members of the legislature in mid-January, and an electronic version is available at www.twdb.state.tx.us/ publications/publications.asp.

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# **Recent Reports Released by TWDB**

By: Jorge Arroyo, Radu Boghici, and Kathleen Ligon

### Changes in Water Levels in Texas, 1990–2000

This report compares water level readings taken in 1990– 1991 with those taken in 2000–2001 at more than 4,200 wells to assess changes during the decade. Most of the statewide changes in water levels were less than 25 feet. There were 2,325 wells that showed water level declines of up to 25 feet, and 1,243 wells that recorded rises of up to 25 feet. The median statewide water level change was a decline of 3.0 feet.

### Water Quality in the Carrizo-Wilcox Aquifer, 1990–2006

The Carrizo-Wilcox Aquifer is one of the most prolific groundwater sources in Texas. In 2005 and 2006, TWDB analyzed 331 groundwater samples for major and minor ions, trace elements, and radionuclides in this aquifer. The study indicates that groundwater in the aquifer is predominantly fresh to slightly saline. Although the quality of the groundwater was generally good, some of the samples exceeded the maximum contaminant levels and secondary standards for nitrate, lead, fluoride, chloride, sulfate, iron, manganese, and total dissolved solids.

## The Future of Desalination in Texas

On December 1, 2008, TWDB submitted this biennial report to the Governor, Lt. Governor, and Speaker of the House. The joint efforts of the Brownsville Public Utilities Board and TWDB over the last biennium have moved the Seawater Desalination Initiative one step closer to its primary goal of installing a production and demonstration seawater desalination facility in Texas. The report discusses the progress to date, remaining challenges, and recommendations for future activities to advance the development of seawater desalination supplies in Texas.

## Far West Texas Climate Change Conference Study Findings and Conference Proceedings

In mid-December, TWDB delivered this report to the Texas Legislature. As directed by Senate Bill 1762, 80th Texas Legislative Session, TWDB, in coordination with the Far West Texas Regional Water Planning Group, conducted a study regarding the possible impact of climate change on surface water supplies from the Rio Grande. The report documents study findings and proceedings from the Far West Texas Climate Change Conference held June 17, 2008, in El Paso. The report also includes speaker presentations and conference discussion sessions.

To view or obtain a copy of these reports, please visit our Web site at

www.twdb.state.tx.us/publications/publications.asp.

# TWDB Selects Wendy M. Foster as Director for Governmental Relations



Wendy Foster comes to TWDB with extensive experience in the water and governmental arenas. She received her B.A. from Texas Tech University in Agricultural Communications and has worked at the local, state, and federal levels on rural and economic development programs, water supply projects, and issues pertaining to rural affairs,

Wendy M. Foster

agriculture, water, land use, property rights, and public utilities.

Most recently, Wendy was a member of the Winstead Consulting Group where she provided clients strategic counsel on legislative and regulatory issues and grassroots coordination.

Prior to joining Winstead, Wendy served as project director for WaterTexas, the first privately funded company in Texas dedicated exclusively to the systematic development of wholesale water projects using private equity. In her position, she directed water development projects by coordinating and communicating with project consultants, landowners, local entities, and WaterTexas.

In addition, Wendy served as a legislative assistant for a former Speaker of the Texas House of Representatives on issues relating to land use, agriculture, economic and rural development, workforce, the state parks system, and protection of the Texas coast. In this capacity, she worked with over 12 state agencies, numerous policy boards, lobbyists, and state and local elected officials.

"Wendy brings to our agency sterling credentials, a wealth of knowledge on water issues, and a proven record of leadership," said J. Kevin Ward, Executive Administrator for TWDB. "She will provide an immense resource as we prepare to embark on the legislative session and will be a significant addition to the executive team as our agency continues to strive toward excellence in meeting our mission."

### **TNRIS-Sponsored Technology Workshops**

TNRIS offers a variety of technology workshops, from basic ArcGIS 1 through more advanced topics such as Arc Hydro. For more information, to view a current schedule, or to register online, please visit www.tnris.org/Workshops.aspx?id=1026.

# Eagle Pass Recognized

By: Diane Hyatt

The U.S. Environmental Protection Agency selected the City of Eagle Pass to receive two awards—the fourth annual Performance and Innovation in the SRF Creating Environmental Success (PISCES) award and the Drinking Water State Revolving Fund (DWSRF) Award for Sustainable Public Health Protection. Nominated by TWDB, the city is receiving the awards in recognition of projects that increase the sustainability of water and wastewater.

The Eagle Pass project demonstrated 1) innovation in financing, 2) creative use of partnerships, and, 3) efficient use of water resources. The city has been able to establish financial integrity and affordability through the coordination of state and federal grant and loan programs. With the help of these programs, Eagle Pass has achieved regional utility system improvements that meet the water quality and health standards of the Clean Water Act and the Safe Drinking Water Act.

Using the CWSRF, the city replaced two aging interceptor lines and several high-maintenance lift stations with two gravity-flow interceptors sized to extend service to colonia areas located in the county as well as accommodate the population of the city. A water reuse system was also constructed to save water to be used in municipal irrigation. In addition, the project used the CWSRF to construct sewage collection systems in under-served colonia communities, which are outlying residential areas often built without adequate water and sewage facilities.

The city used the DWSRF to construct a new 19 milliongallon-per-day water treatment plant, three new major water transmission lines, and three new elevated storage tanks. Eagle Pass also used the funds to purchase a failing water supply corporation. This project allowed the city to become a regional water provider serving about 97 percent of the residents of Maverick County. The purchase of the El Indio Water Supply Corporation enabled the city to upgrade the quality and quantity of safe drinking water to minimum state standards for many of the colonia residents living in areas near the city. All of the city residents benefit from the new water treatment plant that incorporated ultra-filtration membrane technology, which allows the treatment of poor quality raw water from the Rio Grande to current drinking water standards. TWDB Board members and staff are scheduled to present the awards on February 13 at 1:00 p.m. in Eagle Pass.

# TNRIS Deploys a Web Accessible Viewer for Emergency-Related Events

#### By: Kathleen Mack

In response to Hurricanes Katrina and Rita, the Governor's Division of Emergency Management through the Federal Emergency Management Agency (FEMA) awarded a grant to TWDB's Texas Natural Resources Information System (TNRIS) to design and build the Geographic Emergency Management Support System (GEMSS).

GEMSS is a geospatial clearinghouse and data services network that archives emergency event data collected by FEMA and other entities. The system has the ability to incorporate new information from various sources, then process, analyze, and communicate in real time to support disaster mitigation planning and response efforts.

Launched on December 19, 2008, GEMSS is a Webbased system built on SQL server 2008 using Microsoft Virtual Earth. It runs on any device with an Internet browser. The primary intended users are emergency management personnel who are non-GIS professionals. GEMSS provides them with the ability to analyze data from past events and evaluate exactly how the event played out. Emergency management personnel can use this information to determine what went well and identify specific issues to be corrected during future events. GEMSS also has the capacity to access real-time data such as traffic feeds, traffic camera views, and weather conditions. These views are integrated with incoming critical information from emergency responders to provide a common operational picture as events unfold.

The GEMSS data clearinghouse can expand over time, providing a long-term set of digital data to understand and plan for natural disaster events.



Screenshot of the GEMSS application

# Major Rivers Order Deadline is March 1, 2009

#### By: Linda Ruiz McCall

Major Rivers, along with his horse, Aquifer, has been visiting Texas 4th and 5th grade classrooms for the past 20 years. This year's order deadline for the curriculum is March 1, 2009. Spanishlanguage versions of the student materials are available. To place your order, please contact Linda Ruiz



McCall at 512- 463-5836 or visit our Web page at www.twdb.state.tx.us/edu/MajorRivers/index.asp.

Latest Research & Planning Fund Grants Reports				
Contract	Description	Date		
504830560	Urban Landscape Water Conservation Guide	October 2008		
504830033	FY 2005 Analyze existing biological data	October 2008		
604830590	Regional Wastewater Facility and Water Supply Facility Planning Grant for Quail Valley Utility District	October 2008		
704830728	Regional Wastewater Facility Plan for the Airline Improvement District	October 2008		
704830756	Provide new analysis of water demand projects for power generation	November 2008		
604830555	Analyze groundwater quality samples for the TWDB's groundwater quality monitoring program	December 2008		

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## **Progress on SB3 Initiatives**

By: Ruben Solis

"Environmental flows" is the term used to describe the flows needed to protect and maintain healthy and productive rivers and estuaries. With the passage of Senate Bill 3 (SB3) in 2007, a new era dawned in the study of environmental flows. This legislation called for the creation of several key committees and local stakeholder groups to help establish environmental flow recommendations. Including local input represents a new approach in Texas, similar to the decentralization of water planning brought about by Senate Bill 1 in 1997. The committees and stakeholder groups created by SB3 face the challenge of determining flows needed to maintain healthy rivers and estuaries while also meeting the competing needs of a growing population.

As a result of the legislation, the river basins and bays of Texas were organized into seven areas, each with its own Stakeholder Committee and Expert Science Team. A statewide Science Advisory Committee guides the local science teams. To date, the Science Advisory Committee has been appointed, and Stakeholder Committees and Science Teams have been selected for two of the seven bay and basin areas—the Trinity/San Jacinto and Sabine/ Neches. The two Science Teams are scheduled to submit their recommendations by November 2009, followed by the Stakeholder Committee suggestions in May 2010. The Texas Commission on Environmental Quality will use this information to adopt flow standards by rule in May 2011.

Similar stakeholder processes for the remaining five basin and bay areas (Colorado/Lavaca, Guadalupe/San Antonio, Nueces, Rio Grande, and Brazos) will begin over the next two years and are scheduled for completion by the spring of 2013. For more information, contact Barney Austin at 512-463-8856 or at <u>barney.austin@twdb.state.tx.us</u>.

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# Groundwater 101

#### By: Janie Hopkins

The GW101 workshop, held November 18–20, provided training on issues ranging from basic hydrogeological concepts to determination of desired future conditions to demonstrations of water level recording equipment and water quality sampling procedures. The next workshop will be held in conjunction with the Carrizo-Wilcox Aquifer Conference at Texas A&M University, October 13–14, 2009.

# **Innovative Water Technologies**

By: Sanjeev Kalaswad

#### Jorge Arroyo Wins Fellowship

Jorge Arroyo, P.E., was one of two Fellows chosen worldwide by the International Desalination Association (IDA) to receive the organization's inaugural fellowship. The IDA fellowship program facilitates the advancement of global expertise in desalination and water reuse through the exchange of talents, knowledge, and skills. The Fellows were chosen based on "relevant experience in the field of desalination and water reuse and the potential to make a significant contribution to desalination and water reuse." Jorge carried out his studies at the Singapore Public Utilities Board.

#### Winners Selected for the Texas Rain Catcher Award

TWDB would like to recognize two winners of the Texas Rain Catcher Award.

### John and Tommi Larrison of Georgetown

The Larrisons installed a 6,500-gallon-capacity rainwater harvesting system at their home about four years ago to meet all of their potable and non-potable water needs. The system (approximate cost \$5,000) includes a galvanized roof, storage tanks, screen and sediment filters, pump, and ultraviolet lamp. The Larrisons are actively involved in spreading the word about rainwater harvesting and were featured on KXAN's evening news report in July 2006.

### Junior Master Gardeners group at the Carver Center School in Midland

Designed and installed by the Junior Master Gardeners group under the supervision of their teacher, Ms. Emmy Ulmschneider, the 4,100-gallon-capacity rainwater harvesting system at the Carver Center School in Midland supplies water to a garden pond and irrigates a biodiversity garden at the school. The system was built at an approximate cost of \$2,500. The award-winning biodiversity garden at the school serves as an educational tool for students and the community.

Congratulations! To see pictures of the two systems and to read more about these winning projects, please visit www.twdb.state.tx.us/iwt/rainwater.asp.

## Loan/Grant Commitments October through December 2008

Organization	County	Fund	Amount	
October				
Upper Guadalupe River Authority	Kerr	EDAP	\$51, 750	
Kerr County	Kerr	EDAP	\$178,500	
City of La Grulla	Starr	EDAP	\$1,842,300	
City of Bedias	Grimes	EDAP	\$845,000	
City of Jarrell	Williamson	CWSRF	\$1,520,000	
Trinity River Authority- Denton Creek Regional Wastewater System	Denton	CWSRF	\$27,225,000	
San Antonio Water Systems- City of San Antonio	Bexar	CWSRF	\$72,395,000	
City of Houston	Harris	CWSRF	\$58,245,000	
Trinity River Authority	Dallas	CWSRF	\$4,845,000	
November				
San Jacinto River Authority	Montgomery	WIF	\$21,500,000	
City of Sugar Land	Fort Bend	CWSRF	\$30,390,000	
City of Corsicana	Navarro	WIF	\$1,935,000	
Brazos River Authority	Williamson	WIF	\$22,000,000	
City of McAllen	Hidalgo	WLAF	\$2,000,000	
City of Burnet	Burnet	CWSRF	\$11,425,000	
Greater Texoma Utility Authority	Collin	TWDF	\$5,290,000	
North Texas Municipal Water District	Kaufman and Collin	WIF	\$43,980,000	
Somervell County Water District	Somervell	WIF	\$31,035,000	
December				
North Texas Municipal Water District	Fannin	WIF	\$9,930,000	
Greater Texoma Utility Authority	Grayson	WIF	\$835,000	
City of Cleburne	Johnson	WIF	\$5,930,000	
Dallas County Park Cities Municipal Utility District	Dallas	TWDF	\$33,000,000	
Trinity Rural Water Supply Corporation	Trinity, Polk, and Walker	RWAF	\$900,000	
Harris County Water Control and Improvement District No. 36	Harris	CWSRF	\$5,000,000	
City of Commerce	Hunt	DWSRF	\$2,740,000	
City of Amarillo	Potter and Randall	WIF	\$38,885,000	
Total October - December 2008 \$433,026,645				

CWSRF: Clean Water State Revolving Fund

- DWSRF: Drinking Water State Revolving Fund
- EDAP: Economically Distressed Areas Program
- RWAF: Rural Water Assistance Fund
- TWDF: Texas Water Development Fund
- WIF: Water Infrastructure Fund
- WLAF: Water Loan Assistance Fund

# State Water Plan Funding & Accomplishments

#### By: Darrell Nichols

During the 80th Legislative Session, the Texas Legislature authorized appropriations that allowed TWDB to offer financing for projects that are recommended water management strategies in the 2007 State Water Plan. The appropriated funds were used to implement TWDB's Water Infrastructure Fund and State Participation Program. The appropriations were also used for the Economically Distressed Areas Program, which allowed TWDB to provide grants to assist disadvantaged communities with implementing water plan projects.

These programs are designed to fund the various facets of water supply projects from early planning and permitting of long-term projects, to construction for immediate needs, to funding the optimal-sized projects that will meet the eventual needs of the citizens of Texas. The programs offer low-interest financing for construction costs and deferred interest and principal payments for development costs.

Since January 2008, TWDB has committed more than \$379 million to fund water plan projects through these important programs. More than \$283 million has been committed to finance construction projects, including surface water treatment plants, raw water intakes, new well fields, transmission lines, and recycled water pipelines. More than \$96 million has been committed to finance the planning and development costs for such projects as new reservoirs, raw water conveyances, transmission pipelines, wetland reuse, and surface water treatment plants.

TWDB continues to evaluate the amount of funding needed to implement the State Water Plan and will provide this information to the 81st Legislature. For more information on these programs contact Darrell Nichols at 512-463-8491 or visit our Web site at www.twdb.state.tx.us.