

Sponsoring Conferences Builds Knowledge and Relationships

By Bill Norris, P.E.

From looking at this month's issue, it appears we should consider changing the name of this publication from "Texas Water News" to "Texas Water Conference News." The spring and the fall are big conference seasons, especially for the water industry. NRS and Befesa WaterBuild take an active role in supporting conferences because we strongly believe that the nation's water and wastewater issues can't be solved by engineers alone. Sharing information with policy makers, utility managers, water operators, and design-build experts opens our eyes to new possibilities. It helps us be more creative. It's also good for business.

We enjoy networking with our current clients, future clients, colleagues, competitors, and former employees at these events. They give us an opportunity to make new friends, share old "war stories," and create lasting bonds with others in the industry.



NRS FRIENDS AND CLIENTS AT THE VALLEY ENVIRONMENTAL SUMMIT (L TO R): JOE BARRERA, DEBBY MORALES, SONIA LAMBERT, BILL NORRIS, KEN JONES, BRIAN MACMANUS, AND WAYNE HALBERT.

Many of the conferences we support are organized by non-profit associations like the Texas Water Conservation Association and the Multi-State Salinity Coalition. All of them are dedicated, like we are, to exploring new ways to provide the most

important substance on Earth - water.

The conference season is almost over, but we're busy making plans to sponsor numerous educational events in 2011. Hope to see you out there!

PRINCIPAL'S CORNER

Sunset Commission Staff Recommends "Evergreen" Development Fund Authority of \$6 Billion for TWDB

THE SUNSET ADVISORY COMMISSION, A 12-MEMBER LEGISLATIVE BODY THAT REVIEWS EACH STATE AGENCY EVERY 12 YEARS, HAS BEEN STUDYING 28 AGENCIES DURING THE INTERIM, INCLUDING THE TWO THAT LOOM THE LARGEST IN THE WATER WORLD – THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) AND THE TEXAS WATER DEVELOPMENT BOARD (TWDB).

The Sunset Commission process begins with an agency's self-evaluation, then Sunset Commission staff work with agency staff to create a report on legislative or constitutional changes that could be made to improve an agency's operations. Members of the general public are encouraged to comment on the staff report through online forms at the Sunset Commission website (www.sunset.state.tx.us), or attend the appropriate public hearing. The Sunset Commission then makes recommendations to the legislature, which drafts bills that may or may not pass the legislative process.

The staff report on TWDB was released in October, making six recommendations for improvement. When asked which recommendation would he most like to see passed, Executive Administrator J. Kevin Ward said, "It would be Issue #1 - the bonds - because without them we're unable to help the state of Texas like we've been able to help them over the past 50-something years."

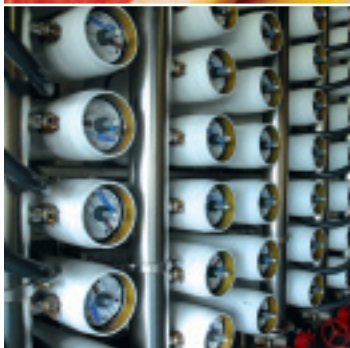
Issue #1 would "authorize the Board to issue Development Fund general obligation bonds on a continuing basis, in amounts such that the aggregate principal amount outstanding at any time does not exceed \$6 billion; and clarify that the

Board's Development Fund general obligation bonds are not considered State debt payable from general revenue for purposes of calculating the constitutional debt limit until the Legislature appropriates debt service to the Board and the Board issues the debt."

The Development Fund is the heart of TWDB's mission, providing grants and loans to local government entities through the Water/Wastewater Loan Fund, the Water Infrastructure Fund, the State Participation Program, the Rural Water Assistance Fund, and the federally-matched Clean Water State Revolving Fund and the Drinking Water State Revolving (continued on next page)



GENERAL OBLIGATION BONDS FROM TWDB HELP COMMUNITIES ACROSS TEXAS BUILD WATER AND WASTEWATER INFRASTRUCTURE IMPROVEMENTS.



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Fund. The total funding commitments through the Development Fund have grown from nearly \$400 million in 2001 to nearly \$1.5 billion today. The agency has approximately \$1.1 billion remaining in its bonding authority, but because of the dire need for infrastructure improvements, that amount is expected to drop to \$266 million by the end of fiscal year 2011.

Seven times in the past, the bonding authority was approved by voters through constitutional amendments, but once all of the bonds were issued, another constitutional amendment was needed.

Ward said an "evergreen" Development Fund of \$6 billion would be very helpful. "What it does is restrict the amount of outstanding debt the board can issue," he said. "By restricting how much can be outstanding, it actually prevents us from issuing too much debt at once. As long as we keep the outstanding debt below \$6 billion, which means managing that outstanding debt, then yes, we could continue to issue and have a renewable resource for the state, for funding water for the future."

To obtain this evergreen authority, the legislature must pass a joint resolution and voters must approve a constitutional amendment next year.

Other important recommendations include requiring groundwater management areas to have representatives of regional water planning groups on their boards (Issue #2), and moving petitions over groundwater conservation districts' Desired Future Conditions (DFCs) from the TWDB to the TCEQ (Issue #3).

All six TWDB issues will be reviewed by the Sunset Commission during a public hearing in Austin on Nov. 16. The Sunset Commission's staff report on TCEQ is expected to be released in November. Those recommendations will go before the Sunset Commission in mid-December.



INNOVATIVE WATER SUPPLY IDEAS EXPLORED

More than 300 people gathered in San Antonio in mid-October to learn more about non-traditional water supply methods, such as desalination of groundwater and seawater, aquifer storage and recovery, water reuse, and stormwater harvesting.

The "Texas Innovative Water 2010" conference was coordinated by the Texas Water Development Board (TWDB), in partnership with the U.S. Bureau of Reclamation (BOR) and the San Antonio Water System (SAWS). NRS Consulting Engineers and Befesa WaterBuild were among the six corporate sponsors.



GG GOMEZ OF BROWNSVILLE PUB, TOM PANKRATZ OF WATER DESALINATION REPORT, AND ROBERT PUENTE OF SAWS DISCUSS OPPORTUNITIES FOR SEAWATER DESALINATION IN TEXAS.

The head of TWDB's innovative water technologies division, Jorge Arroyo, P.E., said, "Desalination is not new to Texas. What is new is the pace in which it's picking up." Arroyo said 44 public water supply systems now use desalination as part of their portfolio, producing approximately 116 mgd. The cost of groundwater desalination in our state, he said, varies from \$410 to \$850 per acre-foot, depending on source water quality.

According to a 2003 study funded by TWDB, 2.7 billion acre-feet of brackish groundwater lies below Texas, but the following issues need to be considered to develop it:

- **Resource characterization** – for example, knowing the amount of total dissolved solids (TDS) in the water at a particular location and how deep to drill for the highest-quality water;
- **Concentrate management** – the waste stream that's part of desalination can be managed through deep-well injection, evaporation ponds, aquaculture, or surface water dispersal;
- **Energy requirements** – reverse osmosis requires a lot of energy to move water through membranes at high pressures. Alternative energy sources, such as solar and wind power, may help reduce those costs;
- **Funding** – like all infrastructure projects, it costs millions of dollars to design and build desalination facilities. TWDB has awarded \$5.3 million in grants since 1992 for planning, feasibility assessments, pilot studies, and desalination demonstration projects.

For the upcoming legislative session, TWDB has requested a budget rider of \$525,000 for each fiscal year to fund additional brackish groundwater demonstration projects, and an exceptional item request of \$9.5 million to help the Brownsville Public Utilities Board build a 2.5 mgd seawater desalination demonstration facility.

Robert Puente, CEO of SAWS, said they support the Brownsville project. "Let them have the first go at it. Let's learn from them and see if the state as a whole can learn from that." SAWS is currently developing a brackish groundwater desalination plant in southern Bexar County. It is also beginning to reach out to communities between Bexar County and the Gulf Coast where a seawater desalination plant may eventually be built.

"We have to start thinking that Texas needs the water," Puente said, "no matter if it's Corpus or San Antonio or Lubbock."

Texas Irrigation Expo Promotes Agricultural Water Conservation



Agriculture uses the largest volume of water in the state, so learning how to conserve water while growing the same - or more - amounts of food and fiber will be critical to meeting future water demands. In the Rio Grande Valley alone, it's estimated that more than 438,000 acre-feet of water could be saved each year through improvements to irrigation systems like lining canals with concrete and using drip irrigation instead of flooding a field.

The Texas Irrigation Expo was held in October in Mercedes to share information on different types of irrigation methods with farmers, irrigation districts, and groundwater conservation districts. More than 200 people attended the event, which featured a reception, tours of nearby demonstration sites, and nearly 60 exhibits by private companies, governmental agencies, and non-profit organizations.

The Harlingen Irrigation District-Cameron County #1 (HID) planned the Expo in order to reach a larger audience with the information it is learning as the administrator of a 10-year grant from the Texas Water Development Board (TWDB) for the Agricultural Water Conservation Demonstration Initiative (ADI Program). HID worked with TWDB, Texas A&M-Kingsville, AgriLife Extension Service, the FARM Assist Program, A.W. Blair Engineering, and WaterPR to coordinate the event.

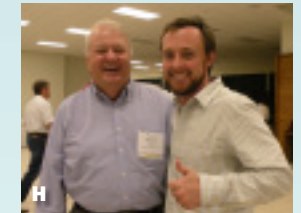
"I think some of the most important information we presented was on how irrigation districts can apply for federal grants to make system improvements," said Wayne Halbert, the general manager of HID. "And farmers were able to see how crops are impacted by different irrigation techniques - both from the data in the presentations, and with their own eyes at the demonstration sites."



The Texas Irrigation Expo enjoyed visits or presentations from the following water leaders: the U.S. Commissioner of the International Boundary and Water Commission Edward Drusina, TCEQ Commissioner Carlos Rubinstein, TWDB Executive Administrator J. Kevin Ward, the Regional Director of the U.S. Bureau of Reclamation Mike Ryan, and the State Conservationist Don Gohmert.

State Senator Eddie Lucio, Jr., also joined Carole Baker of the Water Conservation Advisory Council to honor Jimmy Pawlik and Jim Hoffman as "Texas Irrigators of the Year." Pawlik and Hoffman have worked with the ADI Program over the past five years to test irrigation conservation strategies on a wide variety of crops.

To learn more about on-farm water conservation, view the presentations at www.texasirrigationexpo.org.



SCENES FROM THE TEXAS IRRIGATION EXPO: A) IBWC U.S. COMMISSIONER EDWARD DRUSINA, TCEQ COMMISSIONER CARLOS RUBINSTEIN, AND HID'S WAYNE WALBERT ENJOYED THE RECEPTION; B) SEN. EDDIE LUCIO, JR. AND CAROLE BAKER PRESENT "IRRIGATOR OF THE YEAR" AWARDS TO JIMMY PAWLK AND JIM HOFFMAN; C) EXHIBITORS TALK ABOUT THEIR PRODUCTS AND SERVICES; D) STATE CONSERVATIONIST DON GOHMERT TALKS ABOUT USDA-NRCS PROGRAMS TO CONSERVE LAND AND WATER; E) SPRINKLER TECHNOLOGY AT WORK IN THE RIO GRANDE VALLEY; F) AND G) DEMONSTRATION SITE TOURS; AND H) HALBERT WITH NRS ENGINEER JACOB M. WHITE; AND I) UNLINED IRRIGATION CANAL.



Valley Environmental Summit Draws Attention to Border



Rarely do all three TCEQ Commissioners appear together outside of Austin, but in September Chairman Bryan W. Shaw and Commissioners Buddy Garcia and Carlos Rubinstein came to Harlingen to draw attention to the border region's environmental issues.

The Valley Environmental Summit gave TCEQ Commissioners, House Speaker Joe Straus, and local environmental leaders an opportunity to talk

about key issues facing the region, such as air quality, water quality, and illegal trash dumping.

"It's important to talk about water when you have it"

As Commissioner Garcia noted, federal clean air and clean water regulations can only do so much when you share the air and the Rio Grande with Mexico. He said these chal-

lenges will grow, so "we need to address them now before they become insurmountable." Garcia said the Rio Grande

Valley, one of the fastest growing regions in the country, can show the rest of the nation how to balance economic growth with environmental stewardship.

Commissioner Rubinstein, the former Rio Grande Watermaster, said even though the Valley had more water than it knew what to do with this summer because of hurricanes and tropical storms, "It's important to talk about water when you have it."

The Summit was organized by TCEQ and the office of State Rep. Eddie Lucio, III. The next Valley Environmental Summit will be held in McAllen on Oct. 28, 2011.