

## Water Conservation Initiatives Springing Up Across Texas

SCORCHING TEMPERATURES AND A LACK OF SIGNIFICANT RAIN HAVE CAUSED MANDATORY AND VOLUNTARY WATER CONSERVATION INITIATIVES TO SURFACE ACROSS THE STATE THIS SUMMER. MOST MAJOR TEXAS CITIES HAVE CAMPAIGNS TO ENCOURAGE CONSERVATION, INCLUDING OUTDOOR WATERING RESTRICTIONS, REBATES ON LOW-FLOW TOILETS OR SHOWERHEADS, AND INCREASED FEES FOR WATER USAGE OVER A CERTAIN AMOUNT. IN A SIGN OF HOW QUICKLY THE STATE CAN GO FROM FLOODING TO DROUGHT, THE EDWARDS AQUIFER AUTHORITY RECENTLY DECLARED STAGE 1 OF ITS CRITICAL PERIOD MANAGEMENT PLAN WHICH REQUIRES GROUNDWATER PERMIT HOLDERS TO REDUCE WATER USE BY 20 PERCENT. JUST NINE MONTHS AGO, THE AQUIFER'S J-17 INDEX WELL IN SAN ANTONIO WAS THREE FEET SHY OF THE RECORD HIGH. THE IMPORTANT ROLE CONSERVATION PLAYS IN MANAGING THE STATE'S RESOURCES IS STARTING TO GET MORE ATTENTION FROM POLICYMAKERS.

S.B. 3, the omnibus water bill passed by the 80th Legislature, created the Water Conservation Advisory Council (WCAC). It's busy exploring ways the state can proactively support conservation efforts. By the end of the year, the WCAC will make recommendations to the 2009 legislature by:

- **considering the need** to establish and maintain a statewide public awareness program for water conservation;
- **identifying, evaluating, and selecting** best management practices for municipal, industrial, and agricultural water uses and evaluating the costs and benefits for the selected best management practices;
- **evaluating the implementation** of water conservation strategies recommended in regional and state water plans;
- **evaluating the proper role**, if any, for state funding of incentive programs that may facilitate the implementation of best management practices and water conservation strategies;
- **advising the Texas Water Development Board (TWDB)** and the Texas Commission on Environmental Quality on establishing per capita water use targets and goals, among other items; and
- **evaluating the appropriate state oversight** and support of any conservation initiatives adopted by the legislature.

Because of the growing need for water conservation, the TWDB is considering asking the legislature for \$6.7 million in the next biennium to fund additional support for the WCAC, a statewide public awareness campaign, and a grant program for rainwater harvesting. Board member Weir Labatt, III, a resident of San Antonio, encouraged fellow board members to make conservation a higher priority. "I can attest to what we did in our community. It works." San Antonio mounted a major water conservation campaign several years ago and has watched water use drop from 225 gallons per capita per day (gpcd) in 1980 to 132 gpcd in 2006.

### Online Conservation Resources

<a href="http://waterIQ.org">waterIQ.org</a>	<a href="http://h2ouse.org">h2ouse.org</a>
<a href="http://savetexaswater.org">savetexaswater.org</a>	<a href="http://twca.org">twca.org</a>
<a href="http://savedallaswater.com">savedallaswater.com</a>	<a href="http://arsca.org">arsca.org</a>
<a href="http://texaswater.org">texaswater.org</a>	<a href="http://werf.org">werf.org</a>
<a href="http://texaswatermatters.org">texaswatermatters.org</a>	<a href="http://epa.gov/watersense">epa.gov/watersense</a>
<a href="http://stopthedrop.org">stopthedrop.org</a>	<a href="http://twri.tamu.edu">twri.tamu.edu</a>



## NRS CONSULTING ENGINEERS

planning, design, and construction management services

Water Treatment & Distribution Systems	Brackish Groundwater Desalination	Seawater Desalination	Wastewater Collection & Treatment Systems
Irrigation Distribution Systems	Water Supply & Conservation	Wastewater Reuse	Advanced Water Treatment

Going  
Global

# NRS Wins South Pacific Project

NRS Consulting Engineers was awarded its first-ever contract for engineering services in the South Pacific. The American Samoa Power Authority (ASPA) has hired NRS to prepare a Water Supply Facilities Plan to allow ASPA to better identify and prioritize short and long term capital improvement projects and operational and maintenance issues for the largest villages on the island of Tutuila, including Pago Pago. American Samoa is a U.S. territory in the South Pacific, and is composed of five volcanic islands and two coral atolls. The project involves planning and developing water infrastructure, which will help alleviate the area's chronic water pressure and source water problems.

NRS looks forward to the challenge of providing innovative water solutions for the island.

## Water Law Attorney Launches Website

Renowned South Texas attorney Glenn Jarvis has launched a new website, [glennjarvis.com](http://glennjarvis.com), that allows others to learn from his knowledge of water law in Texas. A recognized authority on the law of the Rio Grande, surface water law in general, and special issues of western water law, Jarvis has an almost encyclopedic knowledge of legal issues related to natural resources. Several articles Jarvis has written may be read or downloaded from the site,

including ones titled "Legal Issues in Surface Water Transactions," and "Evolution of Water Resource Management in Texas."

Jarvis serves as chairman of the Rio Grande Regional Water Planning Group, also known as Region M under the Texas Water Development Board's regional planning system. He is also the current Vice-President of the Texas Water Conservation Association.

## TCEQ Names Longtime Staffer as Executive Director



Photo courtesy TCEQ

The three-member Texas Commission on Environmental Quality (TCEQ) has voted unanimously to hire Mark Vickery as the agency's new executive director. Vickery began his career in state government in 1987 as an enforcement coordinator at the Texas Water Commission, which later merged with the Air Control Board to become what is now the TCEQ. "Mark started his career here at this agency," Commissioner Larry R. Soward said. "He rose through the ranks, understands the challenges and

issues ahead, and is unquestionably qualified to serve as executive director."

Vickery has served as the deputy executive director since May 1, 2004. He previously served as deputy director for the Office of Permitting, Remediation and Registration, as well as for the Office of Compliance and Enforcement.

On being named executive director, Vickery said, "I will continue to look for ways to improve the effectiveness and efficiency of the TCEQ as we work to protect our state's precious natural resources." The TCEQ currently has more than 2,900 employees and an annual operating budget of more than \$564 million.

## MEMBRANE TECHNOLOGY CONFERENCE TO BE HELD IN AUSTIN

The South Central Membrane Association (SCMA) is holding its annual conference and membership meeting at the Sheraton Austin Hotel, October 27 - 29, 2008. The conference will focus on giving water plant operators the tools they need to troubleshoot problems they might encounter on the job. Operators will spend half of one day at the Colorado River Water Supply Project in Pflugerville learning from hands-on demonstrations. That plant uses an ultrafiltration membrane system, along with other processes, to treat water from the Colorado River for the citizens of Pflugerville, north of Austin.

Plant managers, designers, engineers, and regulators will want to attend to hear the latest on concentrate disposal and "green energy" options, TCEQ rules and regulations, and certain case studies, including the Brownsville Public Utilities Board's seawater desalination plant that's currently in the pilot stage.

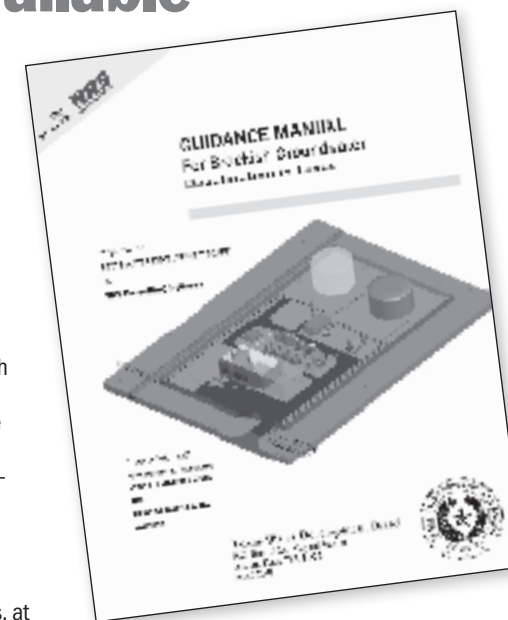
Members of SCMA and the American Membrane Technology Association enjoy reduced conference registration rates. Complete program details and online registration forms can be found on the SCMA website, [www.scmembrane.org](http://www.scmembrane.org).

## Guidance Manual for Brackish Desal Now Available

The *Guidance Manual for Brackish Groundwater Desalination in Texas* is now available online at [www.desal.org](http://www.desal.org). Designed as a resource for communities that are interested in exploring brackish groundwater as an alternative water source (see January 2008 issue of *Texas Water News*), the guidance manual was written by NRS Consulting Engineers and its partners with funding by the TWDB.

A project NRS designed and built, the North Cameron Regional Water Project, is used throughout the guidance manual as a case study to illustrate the process of building a desal plant, from conceptualization to planning, design, construction, and permitting.

Free copies of the guidance manual on CD-ROM are available by contacting Mike Irlbeck, the director of NRS' regional offices, at 512.236.8500. The guidance manual is also available for download through the website.



## North Alamo WSC Increases Supply Through RO

A brackish desalination project designed by NRS and built by WaterBuild for the North Alamo Water Supply Corporation, the Owassa plant, is now operational. A similar project, the Doolittle plant, is nearing the end of construction. Each plant is capable of producing 3 million gallons of water per day through reverse osmosis. Additional capacity is available through blending with other water sources. Both projects were partially funded by the state's Economically Distressed Areas Program.

## Arroyo Awarded IDA Fellowship

The director of the Texas Water Development Board's Innovative Water Technologies Division, Jorge Arroyo, P.E., is spending eight weeks in Singapore this summer as a Fellow of the International Desalination Association (IDA). Arroyo was one of two people chosen from across the world for this first-of-its-kind fellowship. The other individual is Salah Ibrahim Al-Khamis of the Saline Water Conversion Corporation of Saudi Arabia.

The fellowships were awarded during the Singapore International Water Week, an event in June that attracted more than 5,000 delegates. IDA said the Fellows were chosen based on "relevant experience in the field of desalination



JORGE ARROYO, P.E., (CENTER) RECEIVES THE IDA FELLOWSHIP AWARD FROM LISA HENTHORNE, PRESIDENT OF IDA, AND KHOO TENG CHYE, PUB CHIEF EXECUTIVE.

and water reuse, and the potential to make a significant contribution to desalination and water reuse in particular, and to the field of water and waste water, in general."

Singapore's national water agency, PUB, is the host agency during the Fellows' two months of study on that island nation. Singapore opened its first seawater reverse osmosis desalination plant in 2005, one of the biggest in the region with a capacity of 30 mgd. In addition to desalinated water, the 4.5 million residents of Singapore also rely on rainwater catchment, imported water, and NEWater, a branded type of recycled water PUB pioneered for industrial use.

"Both Mr. Al-Khamis and Mr. Arroyo bring extraordinary experience, dedication and professionalism to the IDA Fellowship program. We are confident that their work with PUB will result in incredible opportunities to gain new insights and share information that will benefit the desalination and water reuse industry worldwide," said Khoo Teng Chye, PUB Chief Executive, Chairman of the IDA Foundation Committee and a member of IDA's Board of Directors.

IDA is a non-profit association of over 2,000 members in fifty-eight countries. The membership is comprised of scientists, end-users, engineers, consultants and researchers from governments, corporations, and academia.