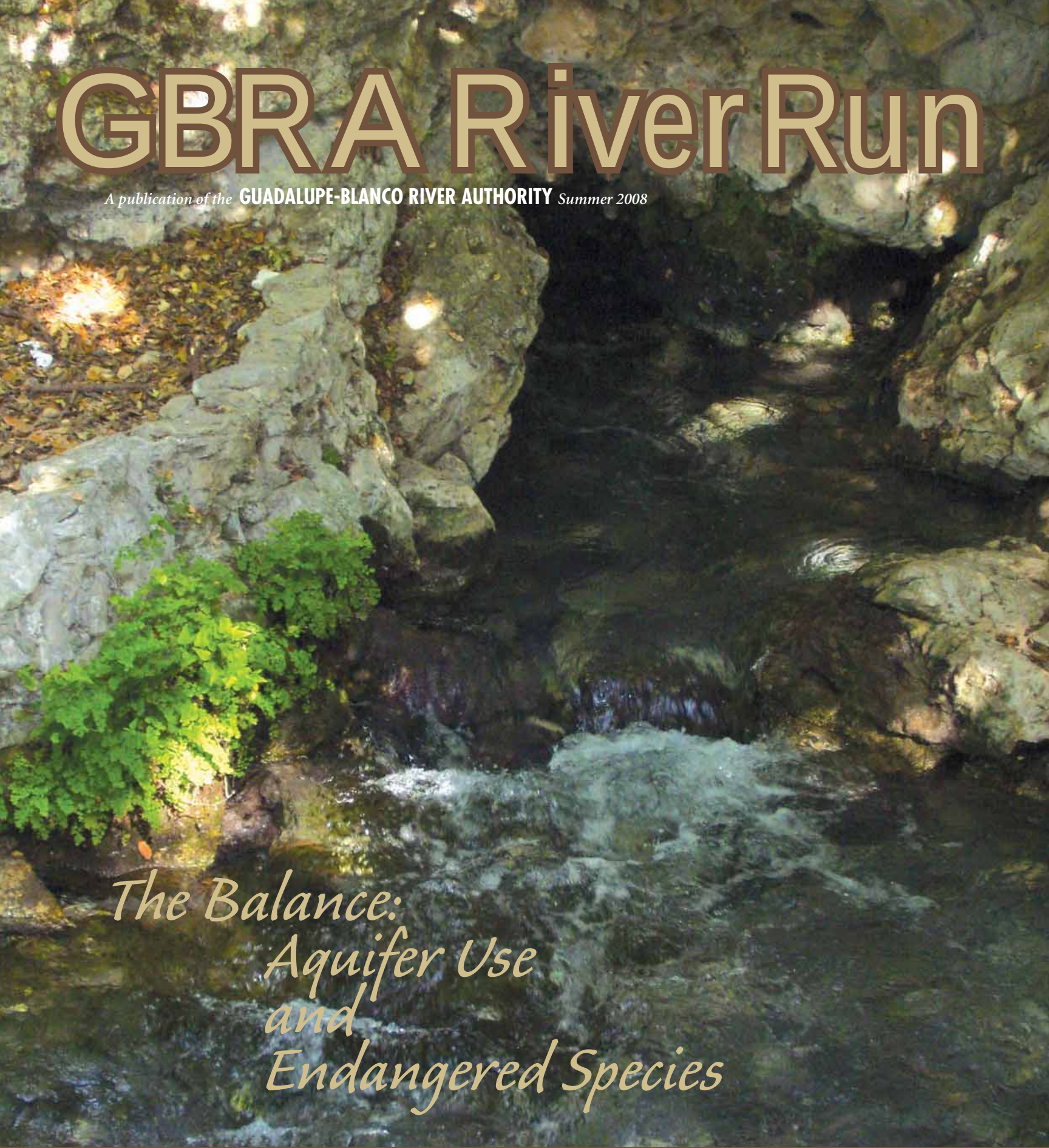
GBRA River Run

A publication of the **GUADALUPE-BLANCO RIVER AUTHORITY** *Summer 2008*



The Balance: Aquifer Use and Endangered Species

Gorge Plan Gets Award ❖ **SB-3 RIP Update** ❖ **Lab Earns NELAC**

From the GM

Developing a Recovery Implementation Plan

As drought grips Texas, the state and particularly the Central and South Central Texas regions are faced with an increasing sense of urgency to deal with its complex water problems. But Texas is not alone when it comes to the water issue. Water supply and its use and reuse are becoming nationwide issues as drought conditions take their toll in the Southeast and West this year.

In this issue of the *River Run*, the cover story examines how the various stakeholders of the Edward's Aquifer are working to try to find a balance between providing water for human consumption, economic development, and recreation while still maintaining the natural resources that are critical to the environment and endangered species.

The Guadalupe River Basin is a microcosm of the issues that face the rest of the country. Metropolitan areas strained by population growth are demanding water. Agricultural interests demand water. Economic development places a demand on water. Environmental resources like springs and estuaries demand water. Sensitive endangered species like the blind salamander of the Edwards Aquifer in the upper part of the basin and the whooping cranes that winter in the lower part of the basin demand water.

And, fresh water resources that supply all of these demands are limited.

Across Texas, other regions are facing the same dilemma. According to some, the Ogallala Aquifer in North Texas is strained from overuse and if that rate of use continues to increase, the Ogallala could be depleted in only a few decades. Growth and development over the Edwards Aquifer threatens the source of the Comal and San Marcos springs, which provide as much as 80 percent of the Guadalupe River flow in times of drought.

Corporate, agricultural, and individual citizens must find a way to share and protect the available water resources of this region. The Edwards Aquifer Recovery Implementation Plan (EARIP) offers the opportunity for all of the stakeholders to develop the scientific rigor necessary for effectively managing supply and demand of this precious resource. It is important for everyone in the region to understand all the myriad of variables that must be considered in making good decisions about how to share water resources.

Another useful article for readers is "Drought Kicks In; GBRA Urges Conservation." It also contains some basic tips that individual consumers can use to conserve water resources during these dry periods.

W. E. "Bill" West, Jr.
General Manager

GBRA River Run

Summer 2008
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Comal Springs
Front cover photo by LaMarriol Smith

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General Counsel Position Created – Wasinger Hired

For many years, the Guadalupe-Blanco River Authority has had to contract legal services for the various undertakings that require attorney input or review. Recently, the GBRA determined sufficient need existed to create the position of an internal General Counsel. Bruce Wasinger, former partner with Bickerstaff Heath Delgado Acosta, was hired in May as GBRA's General Counsel and will serve as a member of the Executive Management Team.

"Wasinger's experience in water and environmental law will be a tremendous asset to GBRA. While he was a partner with the Bickerstaff firm, he handled a number of issues for our organization. It is nice to have him on staff in a full-time capacity," Bill West, GBRA general manager said.

Wasinger will render legal advice to GBRA's Board of Directors and management staff; prepare legal opinions, briefs and other documentation; review contracts; interpret regulations; help resolve disputes; and manage other legal affairs.

With expertise in water and environmental law, as well as public and administrative law, Wasinger is adept in representation of districts, river authorities, counties, municipalities and private entities before state and federal agencies on matters relating to acquisition, sale and permitting of surface and groundwater water rights; wholesale and retail water supply contracts; and the design, financing, construction, operation and maintenance of water and wastewater facilities.

Wasinger earned his juris doctorate degree from Washburn Law School in Kansas in 1977, and his bachelor of arts degree in political science from Fort Hays State University in Kansas 1974.

Photo by LaMarriol Smith

Prior to his partnership with Bickerstaff Heath Delgado Acosta, Wasinger served as associate general counsel for the Lower Colorado River Authority and was a staff attorney for the Texas Department of Water Resources. He formerly worked as staff attorney for the Kansas Department of Revenue, and was an assistant attorney general in the Office of the Attorney General of Kansas.

GBRA to Celebrate 75th Anniversary

The Guadalupe-Blanco River Authority will celebrate 75 years of service to the citizens of Texas with events for invited guests in Austin as well as in the middle and lower end of the Guadalupe Basin.

Plans are underway and details will be mailed soon. GBRA provides stewardship for the water resources in its 10-county statutory district, which includes Kendall, Comal, Hays, Caldwell, Guadalupe, Gonzales, DeWitt, Victoria, Calhoun and Refugio counties.

GBRA Lab Lands NELAC Accreditation

Photo by Tammy Beutnagel

Pictured (standing l to r): Clarissa Castellanos, Bryan Lyssy, Lee Gudgell, Nancy Hawkins, and Emily Knepp; (seated l to r) : Josie Longoria, Debbie Magin, Liz Sedlacek, and Emmy Guitierrez.

The GBRA Regional Lab staff members recently earned accreditation from the National Environmental Laboratory Accreditation Conference (Program) for water and wastewater testing.

The Texas Commission for Environmental Quality (TCEQ) instituted a requirement that any lab samples submitted to the agency must be performed by NELAP accredited labs effective July 1, 2008. Of the state's 168 NELAP accredited labs, 10 are labs run by river authorities.

Josie Longoria, GBRA's regional lab director, said that in order to obtain accreditation, the lab had to meet certain staffing requires related to quality assurance and experience. The lab staff initiated writing a quality assurance system manual for GBRA "even prior to NELAP producing a QA template manual for smaller labs," Longoria added.

A component of this rigorous process began in March 2007 when the lab staff underwent a mock audit, having to pass two proficiency tests for each parameter (about 20 parameters for water and about 35 for wastewater) – all required for the accreditation process.

The sophisticated NELAP application process had to be completed by December 2007. That was followed by the actual TCEQ audit in February, which the lab passed. GBRA's Regional Lab formally received accreditation on May 20 for water and wastewater testing. "Participating in the NELAP accreditation process is good for our employees," Longoria said, explaining that "even though we are committed to excellence and take pride in our work, having that extra measure of credibility gained by the accreditation proves that commitment to our customers."

Area Students Earn GBRA Scholarships

GBRA officials recently presented seven outstanding high school and college students with scholarships. The students, whose families reside within GBRA's 10-county statutory district, submitted applications and earned the scholarships based on academic and extracurricular achievements.

The purpose of the scholarship program is to provide financial assistance to talented students in GBRA's service area whom otherwise might not be able to attend a college/university or technical/trade school. These scholarships serve as a recruitment tool to help GBRA find and develop future qualified employees, and they also afford the opportunity to give back to our communities.

Photo by Tammy Beutnagel

Photo (l to r): Juana Ines Garcia, Brittany Lyn Siemens, Zac Clayton Condie, Jared Conrad Greenfield, Jennifer Diane Schrauth, and Julio C. Galera-Lopez. Not pictured is Christian Marie Baxley.

GORGE MASTER PLAN
Wins National Award

by LaMarriol Smith

Photos from GBRA Archives

The National Association of Recreation Resource Planners (NARRP) recently awarded its 2008 "Excellence in Planning Award" to the Guadalupe Blanco River Authority (GBRA), Halff Associates Inc., and the Gorge Preservation Society for the Canyon Lake Gorge Master Plan.

This national award, presented in May at the organization's annual meeting, is awarded annually to not more than four eligible recipients, including not more than two individuals and two agencies or organizations, public or private. It is awarded primarily for professional achievement in the field of parks and recreation planning. The determining factor is the degree of sustained proficiency or excellence made by the nominated entity, and is given to achievements that further recreation planning.

The Master Plan, developed by Halff Associates in conjunction with the Guadalupe Blanco River Authority (GBRA) and the Gorge Preservation Society Board, established goals for the gorge, strategies for preservation, and cost estimates for features needed to enhance visits to the gorge.

The plan proposed low impact steps and cable guide railings to assist with guided tours along the bottom of the gorge, and a series of rocky "overlooks" along the rim for unguided tours. Each overlook received a "name" to describe its unique characteristics. In essence, the plan was crafted around the notion of doing as little as possible to impact the beauty of the gorge.

"We understood the significance of the wonders unveiled in the gorge from the beginning and wanted very much to be apart of its preservation and development," William "Bill" E. West, Jr., GBRA general manager said. "GBRA appreciates the care and consideration that Halff Associates took in understanding the issues, as well as their skills in developing an appropriate and environmentally suitable design for the gorge," West added.

"This kind of project requires as much heart as it does technical expertise," said Tommie Streeter-Rhoad, GBRA economic development manager, who enlisted Jim Carrillo of Halff Associates to submit a proposal on the gorge. Rhoad said, "Jim and his colleagues at Halff Associates brought all of those things to the table and delivered a stellar development plan for the Canyon Lake Gorge."

The Canyon Lake Gorge, located below the Canyon Lake Spillway, was created over a two-day period during record breaking floods in July 2002. The GBRA, which overseas operations along the Guadalupe River that feeds into and out of Canyon Lake, immediately recognized the importance of the newly formed gorge as an incredibly unique geologic resource, and has been working since to consider how best to preserve the gorge and yet allow access to its one-of-a-kind scenery.

NARRP is a nationwide organization comprised of outdoor recreation professionals and others interested in recreation resource planning, and its mission is to advance the recreation resource planning profession.

Halff Associates is a Texas-based design firm with area offices in San Antonio and Austin, and the firm's team was lead by San Marcos resident Jim Carrillo, a park planner and landscape architect.

Publications
Get Awards

Several design organizations recently recognized publications produced by the Guadalupe-Blanco River Authority with awards.

Hot Times in Texas, GBRA's annual report for the fiscal year ending Aug. 31, 2007, received an American Inhouse Design Award by the editors of Graphic Design USA. One of few recipients from a field of 4,000 entries, *Hot Times in Texas* is featured along with the other winning entries in the July 2007 issue of Graphic Design USA.

Judges of the Association of Marketing and Communication Professionals bestowed a "Gold" award on GBRA's *Hot Times in Texas* and an "Honorable Mention" award on the *GBRA River Run* magazine as part of the Hermes Creative Awards for 2008.

Hot Times in Texas also claimed an "Award of Distinction" from the Communicator Awards, which honors creative excellence for communications professionals. The Communicator Awards are presented by the International Academy of the Visual Arts.

Bill West, GBRA's general manager, said, "These awards are reflective of our commitment to better serve our constituents by providing information in a way that is not only clear and concise, but also visually pleasing."

New Valves Installed On TP-4 Gates

Photos by Rod Voss

Work crews recently completed a joint federal- and GBRA-funded project to install pneumatically-operated vent valves at GBRA's TP-4 spill gates.

The project, totaling a little more than $1 million, became necessary when the spill gates sustained damage during the floods of 1998, 2002, and 2004. Devine Tarbell and Associates determined that the damage was likely caused by a combination of vacuum and hydrostatic pressure conditions, which exist under high discharge flow rates due to flood conditions.

GBRA engaged Devine Tarbell and Associates to prepare a conceptual design and cost estimate for a Federal Emergency Management Administration grant application to mitigate future flood damage. The grant was approved and FEMA provided $787,500 toward the project, and GBRA carried $262,500 of the costs.

After securing proper bids, GBRA retained the services of Archer Western Contractors to install the recommended pneumatically-operated vent valves, atmospheric air vent system. Engineers determined these additions would be the most effective means to resolve the gate movement by relieving the vacuum condition under nappe and internal pressure within the gate as flow passed over the gate.

Crews Clear Logjams

GBRA's canal system staff worked from the end of May into July removing a significant logjam from a portion of the San Antonio River. The logjam was so severe that it temporarily diverted the course of the San Antonio River.

GBRA staff estimated the total cost of the logjam removal operation to be more than $100,000. About 150,000 tons of logs and debris were removed from the river.

Photos by Bryan Serold

Board of Directors Participate in Workshop

In May, Guadalupe-Blanco River Authority board of directors and several staff members participated in a workshop and orientation session held at the Texas Rivers Institute in San Marcos. The workshop covered an array of issues in which GBRA is involved, as well as details about the responsibilities of board membership.

Photos by LaMarriol Smith

Pictured (12 o'clock going clockwise): Arlene Marshall, director; Oscar Fogle, director; Myrna McLeroy, chair; Todd Votteler, GBRA's executive manager of Intergovernmental Relations and Policy; Grace Kunde, director; Cliff Thomas, vice chair; Meg Grier, director; T.L. Walker, secretary/treasurer; Debbie Magin, GBRA's director of Water Quality Services; Bruce Wasinger, GBRA's general counsel; Jim Murphy, GBRA's executive manger of Water Resource Management; and Frank Pagel director.

Specialist Hired for Gorge

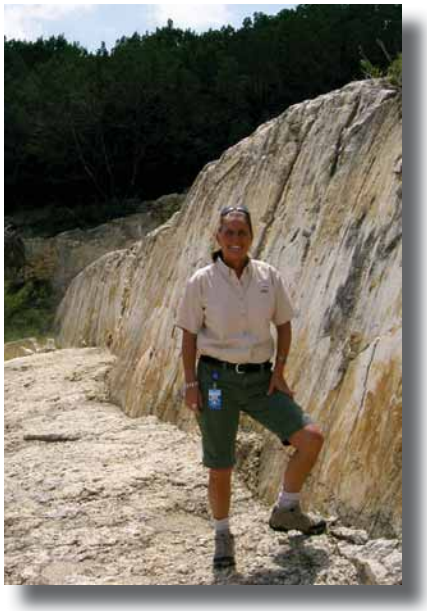
Meet Jaynellen Ladd

The GBRA recently hired a new natural resource specialist to help with the Canyon Lake Gorge and the developing areas surrounding it, and opened a satellite office nearby in Sattler, Texas. Jaynellen Ladd, formerly executive director for the Canyon Lake Chamber of Commerce, fills the new position and serves as the GBRA representative in the Sattler office.

"In addition to serving as a liaison between the Canyon Lake community and GBRA, Jaynellen also manages the development and day-to day activities of the Canyon Lake Gorge," Tommie Streeter Rhoad, GBRA's economic development manager, said. Recently, Ladd found spare time to place first in the women's division of the 2008 Texas Field Archery Association Outdoor State Championship held around the end of June in Irving, Texas at the Irving Bowhunters Association.

The Sattler office also will serve as the Canyon Gorge Preservation Society (GPS) headquarters for visitors requesting information or tours of Canyon Gorge. More information about the gorge and GPS can be found online at www.canyongorge.org.

Photo by Mark Henderson



The Balance: Aquifer Use and Endangered Species

by Joel Williams

An "exceptional drought" setting in over parts of Texas this summer has turned lawns brown, made camp fires illegal and wreaked havoc on the fireworks industry, among other impacts on the Central and South Central parts of the state.

With a large portion of the state recording its driest January-June ever, water levels were dropping fast in the Guadalupe River Basin and the Edwards Aquifer, prompting mandatory water-use restrictions. The situation brought yet another reminder of the need for long-range planning to manage the area's limited water resources.

EARIP and Its Stakeholders

It also underscored the importance of a recently formed group tasked with balancing aquifer water use and supply with the needs of endangered and threatened species. Representing diverse and sometimes conflicting interests spanning from the Hill Country to the Gulf Coast, stakeholders began work in 2007 on the "Edwards Aquifer Recovery Implementation Program," or "EARIP."

Comal Spring stopped flowing for 144 days in 1956.
Photo courtesy of Sophienburg Museum

Those involved see progress simply in the fact that these stakeholders are sitting down together to work through the issues. During the past half-century, the aquifer spanning 180 miles from Brackettville in Kinney County in Southwest Texas to the Central Texas city of Kyle in Hays County has become a source of controversy and division. Communities from the Hill Country to the Gulf Coast have competing interests in the water from the aquifer and the river systems it feeds. Disagreements over use and management of aquifer water have pitted rural vs. urban interests, upstream vs. downstream, pumpers vs. those dependent on spring flows, and property rights vs. environmental considerations, among others.

The 26-member EARIP steering committee includes representatives of state and regional water agencies, municipalities, industries, agriculture, environmental organizations, and the public. They are working within the framework of state legislation passed in 2007 mandating the EARIP.

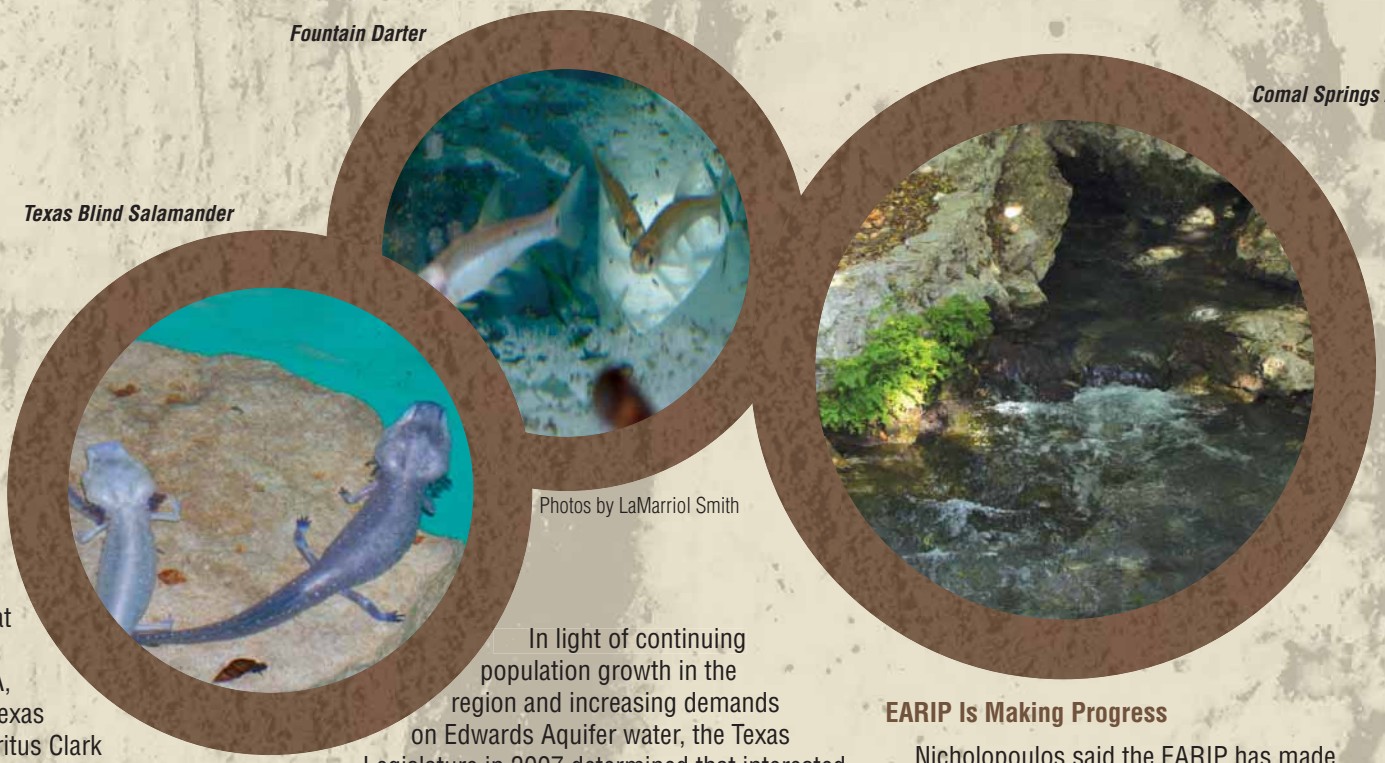
The ultimate goal is to develop a "Habitat Conservation Plan" for species dependent on the Edwards Aquifer and the water that flows from its springs. With the federal Endangered Species Act looming over the process, the state's overriding interest is to prevent the federal government from stepping in and imposing strict regulations in order to prevent the extinction of at least six animals and one plant listed as endangered, and a number of others that mey be listed in the future.

Springflows

While no one knows exactly how much water the Edwards Aquifer contains in its vast underground limestone formations, it is known that the aquifer's water level rises and falls for a variety of reasons, and that the flow from its springs has an impact on rivers in the region.

The federal government and environmental advocates have an interest in protecting the endangered and threatened species that depend on the aquifer and the water that flows from its springs. The amount of water discharged from those springs is heavily influenced by the aquifer level, so the federal Endangered Species Act brought state regulation to the aquifer and ended unrestricted pumping from it.

Regulation of the aquifer changed a century of common law related to aquifer use. Groundwater in Texas historically had been governed by the "rule of capture." That meant that essentially a landowner could pump an unlimited amount out of the ground as long as it was not wasted. But as the population of South Central Texas grew, and San Antonio became one of the nation's 10 largest cities, springflow started to decline, affecting economies and communities dependent on that water, all the way to San Antonio Bay and the Gulf of Mexico.



Fountain Darter

Texas Blind Salamander

Comal Springs 2008

Photos by LaMarriol Smith

A lawsuit that the Sierra Club, joined by GBRA, University of Texas Professor Emeritus Clark Hubbs, and others filed in 1991 under the federal Endangered Species Act led to the creation of the Edwards Aquifer Authority in 1993 by the Texas Legislature. The Legislature mandated that the EAA regulate pumping from the aquifer and impose "critical period" restrictions, tied to the water level in the aquifer, and other measures designed to ensure that enough water continued to flow from the springs to support the endangered species.

Pumping from the Edwards Aquifer has increased from approximately 100,000 acre feet in 1934, to a peak of 542,000 acre feet in 1989. An acre foot is the amount of water required to cover an acre of land one foot deep, or 325,851 gallons.

Of particular interest are San Marcos Springs in Hays County and Comal Springs in Comal County, both of which are fed by the Edwards Aquifer, and which are among the largest springs in the United States. Combined, they contribute approximately 335,000 acre feet of water to the Guadalupe River annually, an impact felt all the way to the bays and estuaries on the Gulf Coast. During droughts, although discharge from these springs diminishes, they contribute an increased percentage of total river flow.

In light of continuing population growth in the region and increasing demands on Edwards Aquifer water, the Texas Legislature in 2007 determined that interested parties needed to achieve a long-term balance between use of the aquifer and the ecosystems that it affects. The Legislature mandated that the Edwards Aquifer Authority develop a Recovery Implementation Program, or RIP. A RIP is an initiative designed by the U.S. Fish & Wildlife Service, in which multiple stakeholders work to resolve critical environmental issues.

Joy Nicholopoulos, state administrator for the U.S. Fish & Wildlife Service, said that establishing a RIP for the Edwards Aquifer was one of her top priorities when she arrived in Austin in December 2005 to oversee the agency's Texas operations.

She had experience with RIPs in other parts of the country, including the multi-state San Juan River Basin in the southwest, and wanted to take lessons learned and apply them here.

"We would much prefer to work in a cooperative and coordinated effort with everyone working together, rather than as regulatory folks coming in and saying 'This is what you have to do,'" Nicholopoulos said. "When you have ownership, there is a lot more buy-in, than if you are being told what to do."

Work on the Edwards Aquifer RIP had already begun when the Legislature set deadlines and mandated that state agencies and Texas A&M University assist the process.

EARIP Is Making Progress

Nicholopoulos said the EARIP has made much faster progress than other RIPs with which she has worked. The process has benefited from the academic input from A&M, including "collaborative workshops" to train the participants, as well as from the deadlines provided in the state legislation.

State Sen. Glenn Hegar, R-Katy, who in 2007 was among the sponsors of Senate Bill 3 to formalize the EARIP, said the state needed to show the USFWS a good-faith effort to protect the endangered and threatened species. He introduced the legislation as a trade-off for San Antonio lawmakers seeking to authorize the Edwards Aquifer Authority to increase pumping from a limit of 400,000 acre feet per year, to 572,000 acre feet per year.

San Antonio and the San Antonio Water System, by far the largest consumer of Edwards Aquifer water, had to go along with the RIP idea in order to get the pumping cap increased.

"The agreement at the end of the day was raising the pumping limits, but also protecting my community by ensuring the flow of the springs," said Hegar, whose District 18 includes all or part of 19 counties stretching from the Hill Country, to Refugio and Victoria counties on the Gulf Coast. "Now, here we are in a very severe drought, and that reminds us that we need to get some real work accomplished to balance the needs of the entire region."

Aquifer Use, Continued

The Edwards Aquifer Authority, state agencies and the USFWS are working under a deadline to approve and execute a RIP agreement by October 2012, to take effect by 2013.

One of the first tasks that EARIP stakeholders needed to accomplish was a "memorandum of agreement" on the principles on which they will work together. That took four months, but other RIPs have taken years just to set their ground rules for operation.

Since then, the group has established an expert science subcommittee, an important accomplishment for the EARIP, which must be science-based.

"We've made an amazing amount of progress in a short amount of time, and now we're beginning to wrestle with the very difficult, substantive issues," said Robert Gulley, program manager for the EARIP, who works under the auspices of Texas A&M University's Institute of Renewable Natural Resources. "We've made progress because everyone has approached the process with a spirit of cooperation. That attitude and approach should enable us to be able to deal with these very difficult issues."

Todd Votteler, GBRA's executive manager of Intergovernmental Relations and Policy, and a member of the EARIP steering committee, said he believes that for Comal and San Marcos springs to keep flowing permanently, and for endangered species and water users on the Guadalupe River to be protected, the following measures are required:

- Conserve Edwards Aquifer water to the maximum extent possible;
- Adopt a regional drought management plan to preserve springflow during drought;
- Develop an efficient market for trading aquifer water rights;
- Develop significant amounts of additional surface and non-Edwards Aquifer groundwater supplies; and
- Create a regional habitat conservation plan.

"The Edwards Aquifer dispute resulted from an inability to balance multiple demands on a limited resource with the need to shelter protected species and protect the baseflow of the Guadalupe River," said Votteler, who served as a federal special master during the Sierra Club case. "This type of dispute is occurring with increasing frequency throughout the country. The Edwards Aquifer RIP may be the last, best chance for stakeholders to influence aquifer management without judicial intervention."

The endangered species:

1. Texas blind salamander (Typhlomolge rathbuni)
2. Fountain darter (Etheostoma fonticola)
3. San Marcos gambusia (Gambusia georgei)
4. Texas wild-rice (Zizania texana)
5. Comal Springs riffle beetle (Heterelmis comalensis)
6. Comal Springs dryopid beetle (Stygoparnus comalensis)
7. Peck's cave amphipod (Stygobromus pecki)

"RIPs must take a long-term, interdisciplinary approach that incorporates policy formation, scientific research, habitat restoration, education, and other activities as defined by the participants," the overview description of the program says, and adds that the program is open to participation by all stakeholders.

Whenever the participants finalize a RIP agreement, the document is subject to approval by the U.S. Interior Secretary. After that, it is submitted to Congress for program funding, which typically requires matching funds from non-federal participants.

Environmental organizations also feel hopeful about the EARIP, said Annalisa Peace, executive director of the Greater Edwards Aquifer Alliance, a participating stakeholder representing 43 member groups in the Edwards region.

"We consider the RIP a wonderful opportunity to add the consensus of our members into the mix of RIP stakeholders, and to engage with all the stakeholders in planning for the future of our region through a process based on recognition of the value of the ecosystem and the endangered species," Peace said.

According to background on the program provided on the EARIP website (http://earip.tamu.edu/index.cfm), implementation of a RIP can take 15 to 50 years or longer.

EARIP steering committee member Calvin Finch, conservation director for the San Antonio Water System, said he has been impressed by the ability of the diverse group to work together.

"The RIP, so far, has been wonderful," Finch said. "We work together well, and we have compromised on some issues." Finch said the varied interests in the region should have gotten together like this sooner.

"One of the most important things is that the water source be stabilized," Finch said.

"We want to have rules and protections that everybody buys into, so we don't have to battle on a constant basis. We need to come up with a joint solution for the endangered species, hand in hand with protecting the rights of the people who use the water. The good news is that I think we'll be able to do that."

As the EARIP begins to deal with the difficult, substantive issues to which Gulley referred, the Science Subcommittee most recently has begun to undertake the first major component. The subcommittee must complete an evaluation of three issues that arise from Senate Bill 3:

1. The option of designating a separate San Marcos pool, how such a designations would affect existing pools, and of the need for an additional well(s) to measure the San Marcos pool, if designated;
2. The necessity to maintain minimum springflows, including a specific review of the necessity to maintain a flow to protect the federally threatened and endangered species; and
3. Whether adjustments in the trigger levels for the San Marcos Springs flow for the San Antonio pool should be made.

In Finch's position paper regarding whether or not to designate a separate San Marcos pool, he advocates for a separate San Marcos pool to be considered a separate system for Edwards Aquifer management purposes, citing reports that provide evidence that there is poor correlation and limited hydrogeologic connectivity between the San Antonio pool and San Marcos Springs.

In Votteler's position paper he advocates no compelling reason for designating a separate San Marcos pool within the San Antonio segment of the Edwards Aquifer, citing that hydrologically, springflows from one or more of the spring openings at San Marcos Spring are driven by something other than, or in addition to, levels of the aquifer as measured by groundwater index well J-17,

EARIP Steering Committee

Member	Affiliation
Joe Aceves	Bexar County
Bruce Alexander	East Medina County Special Utility District
Buck Benson	Alamo Cement / Pulman Law Office
Roger Biggers	New Braunfels Utilities
Jim Bower	City of Garden Ridge
Tim Cook	Texas BASS Federation Nation
Cary Dupuy	Texas Department of Agriculture
Calvin Finch	San Antonio Water System
Rader Gilleland	Gilleland Farms
Myron Hess	National Wildlife Federation
Jerry James	City of Victoria
Weir Labatt	Texas Water Development Board
Cindy Loeffler	Texas Parks and Wildlife Department
Gary Middleton	South Central Texas Water Advisory Committee
Con Mims	Nueces River Authority
Bruce Moulton	Texas Commission on Environmental Quality
Kirk Patterson	Regional Clear Air and Water
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Robert Potts	Edwards Aquifer Authority
Steve Raabe	San Antonio River Authority
Humberto Ramos	Bexar Met
Scott Smith	CPS Energy
Kristan Soto	Dow Chemical
Tom Taggart	Guadalupe Basin Coalition
Todd Votteler	Guadalupe-Blanco River Authority
Dianne Wassenich	San Marcos River Foundation

EARIP Scientific Subcommittee

Member	Affiliation
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Susan Aragon-Long	U.S. Geological Service
Rene Barker	Texas State University
Norman Boyd	Texas Parks & Wildlife Dept.
Thomas Brandt	U.S. Fish & Wildlife Service
Alan Dutton	University of Texas at San Antonio
Ronald Green	Southwest Research Institute
Mike Gonzales	San Antonio River Authority
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Doyle Mosier	Texas Parks & Wildlife Dept.
Edmund Oborny	Bio-West
Jackie Poole	Texas Parks & Wildlife Dept.
Sam Vaugh	HDR Engineering, Inc.
John Waugh	San Antonio Water System

Aquifer Use, Continued

but that it does not mean that the flow system is independent from J-17 levels or the flow system for Comal Springs.

The requirement to maintain continuous minimum springflows throughout a repeat of the drought of record will be a key issue for the EARIP. Near zero flows for any extending period of time could and likely would lead to the extinction of one or more of the listed species. Only the fountain darter and Texas wild-rice will reliably reproduce in captivity. Thus far, two very different views on the critical issue of the necessity of maintaining continuous minimum springflows have been expressed by EARIP participants.

For example, the view supported by SAWS in its position paper said that continuous minimum springflows are not essential to the survival of the species, as the species have survived periods of extreme drought, and current aquifer management strategies have ensured more than adequate springflow for the species based on what have been recognized as extremely conservative "take" and "jeopardy" numbers for the Edwards Aquifer species. Further, the paper indicated, that a science-based review of the data on springflow would likely result in a determination of no minimum springflow requirements for the species.

Supporting a completely opposite view, a position paper submitted by TPWD staff indicated it believed that it was imperative to maintain at least minimum springflows during periods of drought, and preferably a flow regime that mimics natural hydrologic conditions at all times, in order to maintain the federally listed species in their native habitat.

Positions on the rest of the issues continue to be formed, debated and enhanced in order to resolve overall issue of how to effectively manage the Edwards Aquifer by 2012.

Some quick facts related to the balancing act on the Edwards Aquifer:

- Nearly 2 million people, including residents of San Antonio, the nation's seventh-largest city, depend on the Edwards Aquifer as the primary source of 95% of their drinking water, and for other domestic, agricultural, industrial, and recreational uses.
- The aquifer is the sole source of water for a unique system of aquatic life, including an endangered plant species and at least seven endangered animals. Studies have shown that these species typically do not reproduce when removed from the aquifer system and placed temporarily in artificial habitats.
- As the population in the Edwards Aquifer region continues to grow, demands on its water steadily increase.
- Development in the region affects both quantity and quality of its water.
- Those springs provide the baseflow of the Guadalupe River Basin, which is the largest contributer of freshwater inflows to San Antonio Bay and the Guadalupe Estuary.
- Pumping, rainfall, recharge, and drought affect the water level in the aquifer.
- When the water level drops in the Edwards Aquifer, the flow of water from its springs decreases. During the aquifer's drought of record, which lasted from 1947 to 1957, Comal Springs near New Braunfels stopped flowing for 144 days in 1956.

DROUGHT KICKS IN

Conservation Urged

Guadalupe-Blanco River Authority (GBRA) officials are urging citizens in its 10-county statutory district, which includes Caldwell, Calhoun, Comal, DeWitt, Gonzales, Guadalupe, Hays, Kendall, Refugio and Victoria counties, to conserve water and comply with drought management measures implemented by local municipalities.

The water conservation plea comes amidst a National Weather Service report indicating that the period of September 2007 through May 2008 for San Antonio, TX, is the driest on record at 6.57 inches - 2 inches lower than the previous record of 8.89 inches noted in May 1956.

Other factors contributing to implementing conservation steps include the decreasing flows at Comal and San Marcos springs. On June 15, Comal spring flow measured 290 cubic feet per second (cfs) and the San Marcos spring flow was 131 cfs. When flows drop below 150 cfs at Comal and 100 cfs at San Marcos, endangered species, including the Fountain Darter and the San Marcos Gambusia are technically in "jeopardy." According to the USGS website, Barton Springs in Austin was at 31 cfs, and the Barton Springs/Edwards Aquifer Conservation District indicated it anticipated entry into "alarm stage drought" no later than the first week of July.

"While protecting endangered species is important, protecting water resources during times of drought is critical to meeting the overall needs of the region," said Bill West, GBRA general manager. "People need to understand that spring flows are essential to the water supply in the Guadalupe and San Marcos Rivers. This water is used by cities, industries and agricultural producers all the way to the Texas Coast, and is the basis for many water rights issued by the State of Texas. The springs also are critical to instream flows for the Guadalupe River and fresh water inflows to San Antonio Bay."

The city of San Marcos will enter for the first time in two years, Stage 1 of its Drought Response Plan. Stage 1 limits outdoor watering with sprinklers to once a week on designated days, along with other water restrictions. Water Utility Director Tom Taggart ordered Stage 1 outdoor watering restrictions to take effect on Monday, following the publication of official notice in the San Marcos Daily Record on Sunday. The restrictions are necessary to comply with Edwards Aquifer Authority (EAA) emergency rules and state law.

West said that short-term forecasts were not predicting very much relief from the current drought conditions in the central and south central Texas regions.

High temperatures and lack of rainfall are contributing to the declining water levels throughout the Guadalupe River Basin and Edwards Aquifer. The aquifer was 660.5 mean sea level (msl) when read June 15. A level of 650 msl triggers Stage 1 of the EAA Demand Management/Critical Period drought restrictions for aquifer users in Bexar, Medina, and parts of Atascosa, Comal, Guadalupe, Hays and Caldwell counties.

"Just as we share in abundance, we must share in conservation. Effectively managing the watershed and the aquifer, and protecting those resources are so important," West explained. "We must all work together to ensure that everyone who depends upon these water sources will have enough water to meet their basic needs."

GBRA officials urge all individuals to conserve water throughout the summer months and suggest the following indoor and outdoor conservation tips:

Check local papers, radio or TV stations for drought restrictions.

- If vehicles must be washed, do so in a grassy area instead of a driveway. This waters the lawn and prevents used water from going into streets. Turn off the hose while foaming the vehicle.
- Report any residence or business suspected of water misuse to utility officials at local municipalities.

Reuse dish water when finished washing dishes by hand. It can be used to water the lawn or outdoor plants.

- Install low-flow shower heads and sink aerators. These items can be purchased inexpensively at local hardware stores.
- Check toilets for silent leaks by dropping a "dye tablet" (or food coloring) in the tank. If blue water appears in the bowl after flushing, a silent leak may be present. (Contact GBRA at comments@gbra.org or 800-413-4130 for dye tablets.)
- Turn off water faucets while brushing teeth or shaving.
- Check the heads on automatic sprinkler systems every other week to make sure the heads have not shifted direction, spraying water on the sidewalks or driveway instead of the lawn.

INSIDE GBRA

GBRA *Training & Licenses*

Guadalupe Aguillon of Calhoun Canal attended a Pipeline Safety Course.

Deanna Baker of Water Resources attended the Mid-Coast Hurricane Conference.

Darel Ball of Water Resources attended the Water Environment Federation - Fats, Oils, & Grease (FOG) Management Training Seminar and the AWWA's Texas Water 2008 Conference.

Ryan Boedeke of Calhoun RWSS attended Pipeline Safety and Water Distribution #5 trainings.

Clarissa Castellanos of the Lab attended ECLOX training, TOC Sievers Unit training, and Excel - Level 2 training.

Ross Chapman of Victoria Wastewater attended Treatment Unit II training.

Annlee Drazkowski of General attended Word Level 1 training.

Robert Foley of Victoria attended AWWA's Texas Water 2008 Conference.

David Garcia of Port Lavaca WTP attended Electric Journeyman training and the Mid Coast Hurricane Conference.

Leroy Garza of San Marcos WTP attended Chlorinator Maintenance training.

Wendell Gillit of Victoria Wastewater attended Treatment Unit II training.

Joe Gonzales of Victoria attended AWWA's Texas Water 2008 Conference.

Lorenzo Gonzales of Victoria attended Wastewater - Treatment Unit II.

Curtis Gosnell of Calhoun Canal attended Pipeline Safety training.

Ronald Gosnell of Calhoun RWSS attended trainings for Wastewater Treatment and Pipeline Safety, as well as the AWWA's Texas Water 2008 Conference and the Mid Coast Hurricane Conference.

Lee Gudgell of the Lab attended the Water Resources Environmental Enforcement Workshop.

Barbara Gunn of General attended the Hero's Journey.

Emmylou Gutierrez of the Lab attended Customer Service training.

Daphne Harder of General attended the American Payroll Association Conference.

Nancy Hawkins of the Lab attended SPECTRO training and ECLOX training.

Jeannine Herrmann of General attended the American Payroll Association Conference.

Emily Knepp of the Lab attended Customer Service training.

Don Koble of Calhoun RWSS attended AWWA's Texas Water 2008 Conference, Pipeline Safety training, and the Mid Coast Hurricane Conference.

Wilfred Korth, Jr., of Coleto Recreation attended the Certified Park and Recreation Professionals Conference, Dealing with the Media Workshop, and the Texas Leadership Institute.

Joe Long of San Marcos WTP attended Water Technologies training.

David Lundin of Port Lavaca WTP attended the AWWA's Texas Water 2008 Conference and the Mid Coast Hurricane Conference.

Brian Lyssy of the Lab received Excel - Level 2 training.

Debbie Magin of Water Resources attended the Environmental Enforcement Workshop.

Shane McAdams of Coleto Reservoir attended CCP122: PLC-5/ SLC 500 Fundamentals training.

Linda McPherson of Port Lavaca WTP attended the Mid Coast Hurricane Conference.

Ronnie Parenica of Port Lavaca WTP attended the Mid Coast Hurricane Conference.

Cliff Prout of Victoria Wastewater attended trainings for Surface Water II and Wastewater - Treatment Unit II.

Terry Ramey of Victoria Wastewater attended trainings for Surface Water Production I and Surface Water Production II.

Tony Saenz, III, of Victoria Wastewater attended AWWA's Texas Water 2008 Conference and Wastewater - Treatment Unit II training.

Bryan Serold of Water Resources attended the Mid-Coast Hurricane Conference.

Stephanie Shelly of Port Lavaca WTP attended AWWA's Texas Water 2008 Conference and the Mid Coast Hurricane Conference.

Michael Tompkins of Calhoun Canal attended Pipeline Safety training.

Frank Tompkins of Victoria Wastewater attended Wastewater - Treatment Unit II training.

Keelyn Underwood of Victoria Wastewater attended AWWA's Texas Water 2008 Conference.

Teresa Van Booven of Water Resources received Access - Level 1 training.

Dennis Walker of Buda Wastewater attended the TWUA Ground Water Production workshop.

David Weaver of Victoria Wastewater attended Wastewater - Treatment Unit II.

Herb Wittliff of Calhoun Canal attended the Mid Coast Hurricane Conference and a Flood Plain Seminar.

Jim Wyatt of Victoria Wastewater attended the Mid Coast Hurricane Conference.

* Lift All training was offered to Hydro/ RUD employees.

* Supervisory Awareness training - CMI was offered to all GBRA management and supervisors.

* Victoria / Luling participated in HazMat Refresher training.

* Confined-Space training was offered to Victoria employees

Where *are they now?*

Henry "Dolly" Mikesh

by Tammy Beutnagel

In 1936, Henry "Dolly" Mikesh, Jr.'s father was given a tip from a friend that a few good men were needed to work at a company called Texas Power Corporation and Texas Hydroelectric Corporation. Mikesh was one of millions of Americans that needed a job during the great depression, so he applied with the company and was hired.

The Seguin-based company was constructing a hydroelectric dam and spillway near Belmont called H-4 and laborers were desperately needed. Mikesh was hired to work on a crew as a cement mixer during the building of H-4. This hydro dam would replace the original spillway that washed away during a flood in 1932.

Mikesh recalls mule-drawn wagons were used to transport the cement "toe sacks" to the dam. After working as a cement mixer, he was instructed to start building a wall by himself using the cement sacks. "The sacks prevented the water from coming in to where we were working," Mikesh said. "Our gloves would wear out after just a half day's work." He recalls getting paid just five cents more than his previous pay to stack the heavy cement filled sacks. But Mikesh was always thankful to have a job and completed the tasks given to him. "It was hard to get a job in 1936, so we took what we could get."

Mikesh has many memories from the 40 years he was employed with the Texas Power Corporation, and ultimately the Guadalupe-Blanco River Authority. One memory in particular from 1942 Mikesh said he would never forget. He described it as a "close call" while working at Lake Placid.

A storm was brewing as Mikesh and a coworker named Joe were ready to call it a day. The two men knew they would have to walk across the slat board foot bridge that crossed the river to get to their vehicles. Mikesh was leery to cross a two-foot wide, swinging bridge because of the stormy winds, but he knew it was the only way to get home. The two men successfully crossed the narrow bridge to safety when they heard a noise behind them. As they turned around, they saw the gusty winds had turned the foot bridge upside down and slat boards were falling into the water. "That was the most exciting thing I ever had happen to me!" said Mikesh.

Photo by Tammy Beutnagel

During his career, Mikesh was promoted to head operator at H-4 and moved his wife Viola and their children, James, LaVerne and Darlyne from the city of Gonzales to live next door to the H-4 powerhouse. Viola remembers their children growing up there and loving to play at the lake.

In 1965, just two years after GBRA signed a contract as the managing river authority of the hydroelectric lake facilities, Mikesh moved his family to Seguin. He was promoted as a gate maintenance supervisor and helped operate the hydroelectric lakes; H-4, Placid, Nolte, McQueeney, and Lake Wood. During the last three years of his career Mikesh oversaw all gate maintenance at lakes Nolte and Placid.

One wish Mikesh had while working on the hydroelectric crew was to get the opportunity to walk inside a spill gate. "I told my boss Conrad Funk that before I retired I would like to tear just one of those gates open and see what's inside there," said Mikesh. His wish finally came true in 1973, when some of the original boards of the spill gates at two hydro lakes needed replacing. "I was so happy to finally get to see how they were made and how they were put together."

Mikesh retired from GBRA in 1976, and today at age 97 he bears the distinction of being GBRA's oldest retiree. He and his wife enjoy their free time as members in good standing of the Hermann Sons Lodge #37 and the Knights of Columbus Council # 3412 of Seguin.

A dinner honoring Henry Mikesh as a past grand knight and the Mikesh's many hours of volunteerism was held this spring by the Knights of Columbus. Their children, grandchildren and great-grandchildren were also invited to help celebrate their years of dedication.

In 2007, after 68 years of marriage, Henry and Viola renewed their wedding vows among friends and family during a church service at the St. James Catholic Church in Seguin.

Started at GBRA: 1936

Retired at GBRA: 1976

Henry "Dolly" Mikesh can be reached by

BOOKMARK *this page ...*

Interests of the GBRA's staff are as wide and varied as the constituents they serve. Those varied interests are reflected in the books and novels they have taken the time to read lately. The following list contains selected recommended readings by GBRA staff members:

***Bridges of Madison County* by Robert James Waller**

On a 1960s summer day, a photographer walks into a small Iowa town to photograph its beautiful old bridges for a National Geographic photo essay. The photographer stops at a local farmhouse seeking directions and meets the beautiful lady of the house whose family is away at the state fair. The two fall immediately and deeply in love. When it is time for the photographer to leave, the farm wife makes the difficult decision to stay with her family.

— recommended by Norma Harvey, accounting assistant I

***Become a Better You* by Joel Osteen**

Joel Osteen, pastor of a non-denominational Christian ministry, offers seven simple action steps that are intended to help readers discover the better things they were born for...their individual purpose and destiny. Osteen incorporates key biblical principles, devotions, and personal testimonies to uplift and enlighten readers.

— recommended by Barbara Gunn, personnel administration coordinator

***The Time It Never Rained* by Elmer Kelton**

In the 1950s, Texas farmers' and ranchers' entire livelihood hung on the chance of a wet year or a dry year. Drought has the ability to ruin their whole enterprise and determine who stands and who falls. During this drought, one honest, decent, and cantankerous rancher determined he must fight on his own grounds. Refusing the questionable "help" of federal aid programs, Charlie and his family struggled to make the ranch survive until the time it rained again - if it ever rained again.

— recommended by Todd Votteler, executive manager of Intergovernmental Relations and Policy

Take one of these books along on vacation – just think of it as a way to feed the brain this summer while sitting under the shade of the RV awning on the banks of the Guadalupe. Don't forget your bookmark. Enjoy!

employee anniversaries

GBRA recognizes the following employees for their dedication of service. (These employees started with GBRA between the months of March and June.)

March

3/4/1976 Michael Schultze, Hydro — 32 yrs
3/23/1981 John Smith, Water Resources — 27 yrs
3/26/1984 Michael Tompkins, Calhoun Canal — 24 yrs
3/31/1986 Marlon McAdams, Coleto Reservoir — 22 yrs
3/21/1988 Richard Matheaus, RUD — 20 yrs
3/11/1991 Robert Foley, Victoria WWTP — 17 yrs
3/27/1992 William Young, Victoria WWTP — 16 yrs
3/10/1995 Guadalupe Aguillon, Calhoun Canal — 13 yrs
3/15/2004 Michael Helmke, Hydro — 4 yrs
3/21/2006 Leigh Crettenden, General — 2 yrs
3/28/2008 Janea Reneaud, General — New Hire

April

4/26/1982 Jim Lumley, Calhoun Canal — 26 yrs
4/16/1982 Darryl Jandt, Hydro — 26 yrs
4/7/1987 Reagan Ploetz, Hydro — 21 yrs
4/24/1987 Roland Henry, Hydro — 21 yrs
4/8/1991 Robert Delgado, Lockhart WTP — 17 yrs
4/11/1995 David Maltony, Hydro — 13 yrs
4/17/1995 John Manchack, Jr., Hydro — 13 yrs
4/8/2002 Judith Robisheaux, Coleto Recreation — 6 yrs
4/22/2002 Curtis Gosnell, Calhoun Canal — 6 yrs
4/5/2004 Shane McAdams, Coleto Reservoir — 4 yrs
4/5/2006 David Garcia, Port Lavaca WTP — 2 yrs
4/10/2006 Christopher Schofield, RUD — 2 yrs
4/13/2006 Paulette Cowey, Water Resources — 2 yrs

May

5/19/2008 Joey Kisiah, Port Lavaca WTP — New Hire
5/5/1980 James King, Sr., Hydro — 28 yrs
5/17/1976 Juan Jaurez, Hydro — 32 yrs
5/19/2008 Jaynellen Ladd, Water Res. — New Hire
5/1/2001 Yolanda Pierce, General — 7 yrs
5/12/2003 Cynthia Thomas-Jimenez, General — 5 yrs
5/10/1976 Thomas Hill, Water Resources — 32 yrs
5/18/2007 Hunter Duncan, Western Canyon WTP — 1 yr
5/2/1978 Joseph Downey, Luling WTP — 30 yrs
5/19/1987 Michael Urrutia, Water Resources — 21 yrs
5/7/1993 Dennis Gunter, Victoria WWTP — 15 yrs
5/11/2007 Denise Aleman, General — 1 yr
5/4/1981 Alvin Schuerg, General — 27 yrs
5/2/2005 Norma Harvey, General — 3 yrs
5/31/1983 Alan Zolnosky, Coleto Recreation — 25 yrs
5/19/2008 Bruce Wasinger, General — New Hire
5/10/2008 Evan Lovett Coleto, Recreation — New Hire

June

6/25/1973 David Welsch, Water Resources — 35 yrs
6/1/1976 David Weaver, Victoria WWTP — 32 yrs
6/27/1977 Jeffrey McKee, Hydro — 31 yrs
6/24/1980 Cornelio Molina, Jr., Hydro — 28 yrs
6/1/1983 Carl Korth, Coleto Reservoir — 25 yrs
6/10/1986 Sammy Salas, Luling WTP — 22 yrs
6/7/1999 Tamra Beutnagel, General — 9 yrs
6/1/2000 Todd Votteler, General — 8 yrs
6/21/2007 Janet Thome, General — 7 yrs
6/2/2003 Tommie Rhoad, Water Resources — 5 yrs
6/23/2003 Teresa Van Booven, Water Resources — 5 yrs
6/21/2004 Joe Long, San Marcos WTP — 4 yrs
6/30/2004 Daphne Harder, General — 4 yrs
6/20/2007 Christopher Albrecht, Coleto Recreation — 1 yrs
6/20/2008 Roy Wilkey, Western Canyon WTP — New Hire

Hurricane Season is Here

Photo courtesy of NOAA

June 1 – November 30 Is Hurricane Season

The National Oceanic and Atmospheric Administration's (NOAA) website explains the Saffir-Simpson Hurricane Scale as a 1-5 rating based on the hurricane's present intensity. The scale is used to give an estimate of the potential property damage (somewhat like the Fujita Scale does for tornadoes) and flooding expected along the coast from a hurricane landfall. Wind speed is the determining factor in the scale. Storm surge values are primarily dependent on the slope of the continental shelf and the shape of the coastline, in the landfall region. Winds are using the U.S. 1-minute average.

Saffir-Simpson Hurricane Scale

Category One:

Winds reach 74-95 mph. Storm surge is about 4-5 ft above normal. No real damage to building structures. Damage occurs primarily to unanchored mobile homes, shrubbery, and trees, and sometimes to poorly constructed signs.

Category Two:

Winds reach 96-110 mph. Storm surge is about 6-8 feet above normal. Some roofing material, door, and window damage of buildings. Considerable damage occurs to shrubbery and trees, mobile homes, poorly constructed signs, and piers.

Category Three:

Winds reach 111-130 mph. Storm surge is about 9-12 ft above normal. Damage occurs to small residences and utility buildings shrubbery and trees with foliage blown off trees and large trees blown down. Mobile homes and poorly constructed signs are destroyed.

Category Four:

Winds reach 131-155 mph. Storm surge is about 13-18 ft above normal. More extensive curtainwall failures with some complete roof structure failures on small residences. Shrubs, trees, and all signs are blown down. Mobile homes undergo complete destruction.

Category Five:

Winds reach greater than 155 mph. Storm surge is greater than 18 ft above normal. Complete roof failure on many residences and industrial buildings. Some complete building failures with small utility buildings blown over or away.

In April, the Colorado State University forecast team upgraded its early season forecast saying the U.S. Atlantic basin likely will experience a well above-average hurricane season. The team anticipated 15 named storms forming in the Atlantic basin between June 1 and Nov. 30 predicting that eight of the storms would become hurricanes. Of those eight, the team expected four hurricanes would develop into intense or major hurricanes – categories 3, 4, or 5.

Decomposition Takes Time … Lots of Time

The term "sanitary landfill" was first used in the 1930s to refer to the compacting of solid waste materials. Initially adopted by New York City and Fresno, California, landfills used heavy earth-moving equipment to compress waste materials and then cover them with soil. The practice of covering solid waste was evident in Greek civilization over 2,000 years ago, but the Greeks did it without compacting.

Today, sanitary landfills are the major method of disposing wastes in North America, even though considerable efforts are being made to find alternative disposal methods, such as recycling, incineration, and composting. About 70 percent of materials that are routinely disposed of in landfills could be recycled instead. Alternative disposal methods are well worth the effort, especially when one considers the amount of time it takes for various materials to decompose.

Here are some selected materials along with their respective decomposition times:

Glass bottle	1 million years
Monofilament fishing line	600 years
Plastic beverage bottles	450 years
Disposable diapers	450 years
Aluminum can	80-200 years
Leather	50 years
Nylon fabric	30-40 years
Plastic film canister	20-30 years
Plastic bag	10-20 years
Cigarette filter	1-5 years
Plywood	1-3 years

Source: U.S. National Park Service; Mote Marine Lab, Sarasota, FL

Mark Your Calendar

AUG

Aug.19 - 20, 2008
TCEQ's Public Drinking Water Conference (512) 475-8100
DoubleTree Hotel, Austin, TX

Aug. 20, 2008
GBRA Board Meeting
River Annex Bldg., Seguin, TX

Aug. TBA, 2008
Texas Watershed Steward Training (254) 773-2250
Texas State Soil & Water Conservation Board
Plum Creek / Lockhart or Luling, TX

SEPT

Sept. 7 - 10, 2008
23rd Annual WateReuse Symposium (703) 540-0880
Hilton Anatole, Dallas, TX

Sept. 17, 2008
GBRA Board Meeting
River Annex Bldg., Seguin, TX

Sept. 18 - 19, 2008
Texas Water Law Conference
Omni Downtown, Austin, TX

OCT

Oct. 8 - 10, 2008
Texas Water Conservation Association
Crowne Plaza Riverwalk, San Antonio, TX

Oct. 15, 2008
GBRA Board Meeting
River Annex Bldg., Seguin, TX

Oct. 26-30, 2008
2008 International Water Conference
(Industrial Water Treatment)
Crowne Plaza Riverwalk, San Antonio, TX

Gen/GRR/Summer2008/Cap-4500

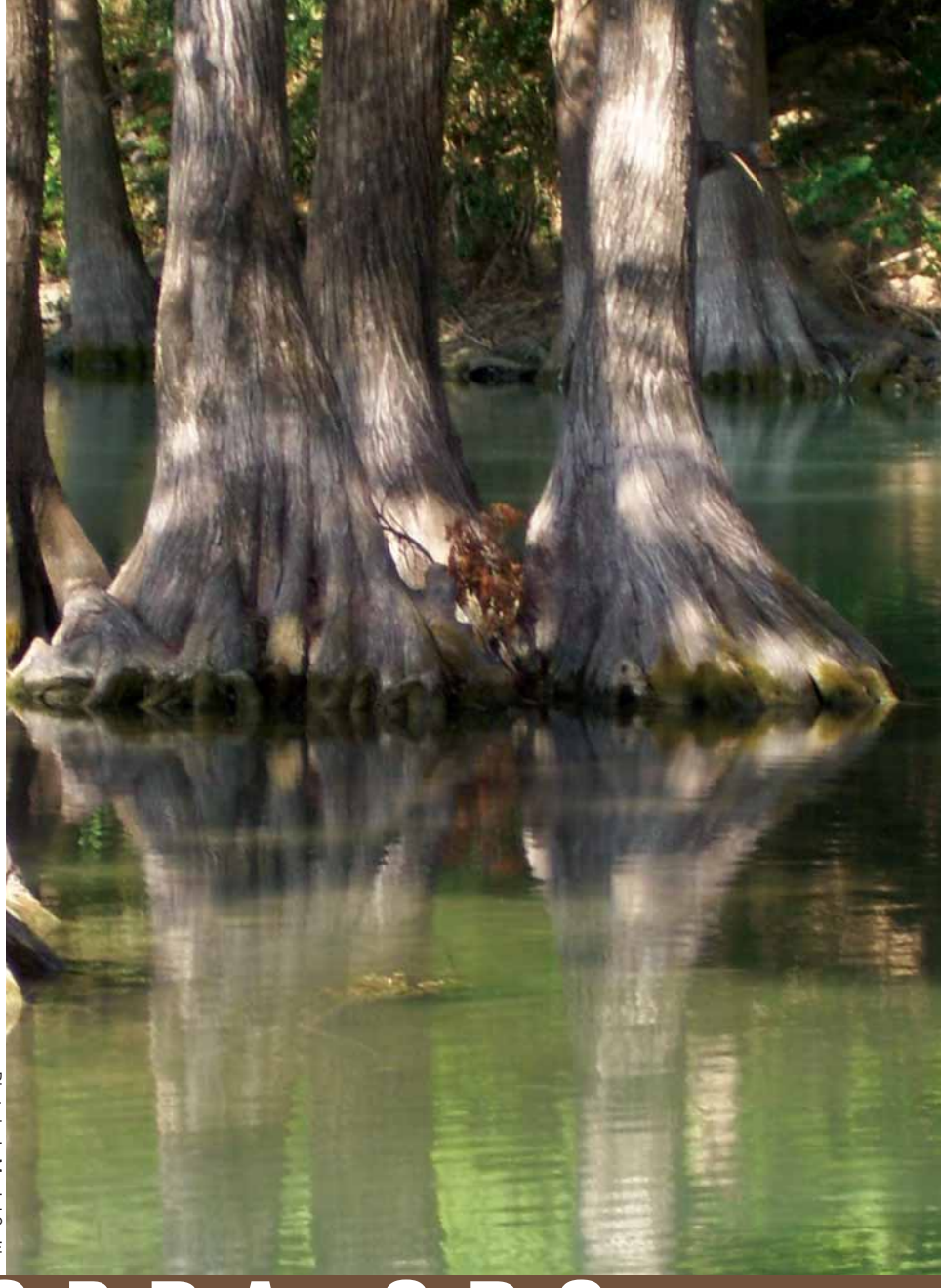

Photo by LaMarriol Smith

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