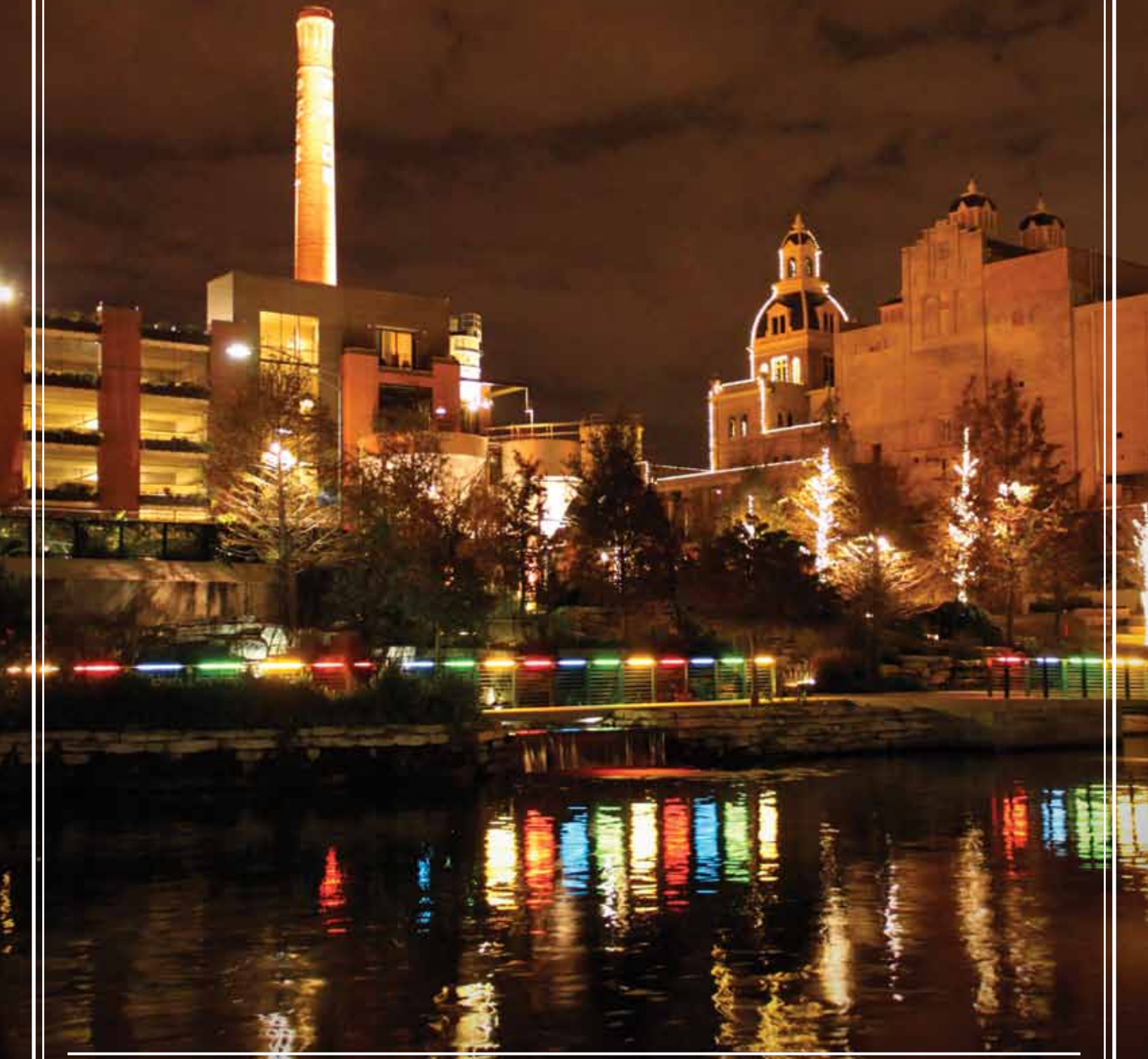


THE SAN ANTONIO  RIVER AUTHORITY

RIVER REACH

The COMMUNITY NEWSLETTER *of the* SAN ANTONIO RIVER AUTHORITY



The San Antonio River Authority's quarterly newsletter, *River Reach*, was selected from among 6,000 entries to receive a 2011 MarCom Gold Award by the Association of Marketing and Communication Professionals.

Thanks to all the SARA staff who contribute to the quality of this newsletter!



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- ★ **Steven Schauer, Manager of External Communications**
- ★ **Gloria Rodriguez Editor-In-Chief**
- ★ **Luke Habenicht Copy Editor**
- ★ **Clint Marzec Graphic Designer**
- ★ **San Antonio River Authority**
Phone: (210) 227-1373
Toll Free: (866) 345-7272
Fax: (210) 302-3681
Email: sara@sara-tx.org
www.sara-tx.org

SARA'S VISION

Leaders in Watershed Solutions

SARA'S MISSION

Sustain and Enrich Life in the San Antonio River Watershed



Cover Image:

Holiday river lighting along the Museum Reach at Pearl.

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SARA'S GOALS - MEASURING UP

By Steve Graham, P.E.

One of the San Antonio River Authority's (SARA) key initiatives in its 2011-2012 fiscal year is to "Optimize, standardize and document technical business processes, including improving the effectiveness and use of the Project Management System." One of the ways we are doing this is with the development and deployment of our projects and programs dashboard. The dashboard is a tool that provides a real-time snapshot of a project's health. Project managers, financial staff, managers and executive staff can see at a glance if all of the 100-plus projects that we manage are on budget, meeting their milestones and properly using estimated staff resources. The tool uses a set of dials and pie charts colored in green, yellow and red. The displayed color is green when budget, milestones and resources are within targets; yellow if the value is starting to deviate; or red if it is outside of acceptable tolerances.

The dashboard automatically retrieves the project data

from various sources and concisely and intuitively displays the project status. This tool enhances our communication and accountability at SARA and helps us to better manage the many studies, plans and construction projects under our jurisdiction. We believe that the dashboard tool strongly enhances our transparency, fiscal stewardship, expertise and competency in management of our business. ★



EMPLOYEE HIGHLIGHT

By Kim Garcia

The San Antonio River Authority (SARA) is delighted to introduce Marie Hulseley, Purchasing Coordinator in our Finance Department. Marie grew up in El Paso, Texas and moved to San Antonio in 2005 to attend St. Mary's University. She graduated in December of 2009 with a BBA in Corporate Financial Management. Marie started with SARA as an intern, and three months later she applied for and got the Purchasing Coordinator position. Marie has worked for SARA for two years. She says this is her first "real job."



As Purchasing Coordinator, Marie's main duties include processing purchase orders; making purchases for all departments; maintaining SARA-issued cell phone records and contracts; managing SARA-issued credit card statements and transactions; maintaining insurance claims for facilities, vehicles and equipment; and tracking fixed assets. She is an Alternate Board Member

of the South Central Texas Regional Certification Agency and a part of the Small Business Academy Consortium (SBA). As part of the SBA, Marie helps organize an annual class where vendors learn how to do business with government entities. Marie is also a member of several internal SARA committees such as the Sustainable Technologies Team, United Way Committee and Think Tank Committee.

Marie likes to spend her free time with family and friends. She enjoys going out of town with her family to watch her brother race his Legends car. She also enjoys playing with her dog, Delilah, playing golf and volunteering in the community. SARA has benefited greatly from her volunteerism. Since she began working here, Marie has won the "Most Volunteered Employee" award for the last two years. We at SARA are very happy to have her! ★



MISSION REACH TREE PLANTING UNDERWAY

By Thomas G. Weaver, SARA Board Member, Bexar County District 4



Much has already been written about the Mission Reach Project in previous issues of the *River Reach*. For this article, I want to focus on what makes the Mission Reach a true ecosystem restoration project. Planting of over 23,000 trees and shrubs, as well as native grasses, vines and wildflowers, will transform this eight-mile stretch of the San

Antonio River into a quality riparian woodland ecosystem. The species being planted were selected based on their historic occurrence in the area, as well as their compatibility with various site conditions.

Native grasses and wildflowers are planted as the earth moving and shaping are completed on each segment of the project. Young trees and shrubs will be planted about a year after the native grasses and wildflowers are established. There is a reason, other than cost, that young trees will

: be planted rather than older, taller trees. Young trees will
: be more resistant to flooding and will develop deeper root
: systems as they grow in the floodplain.

: Tree planting has already started in the first mile south of
: downtown, and this is no haphazard operation! A total of
: 3,005 trees will be planted on this stretch. I used the exact
: number—3,005—because that’s just how precise the planning
: is. There is a specific GPS location and species for each of
: the 23,000 plantings!

: This carefully planned restoration of native species will
: recreate a riparian plant community, with some areas
: planted densely with trees and shrubs while other areas will
: remain mostly grassland. The result will be a diversity of
: habitats that will not compromise floodwater conveyance,
: yet will still attract diverse wildlife species. It will take many
: years to fully mature after the 2013 completion date, but the
: Mission Reach will be a jewel for San Antonio, and a credit to
: the professionalism of the SARA natural resource managers
: and river maintenance staff. As a board member, I am truly
: proud of their efforts! ★

DOLLARS AND SENSE

By Robert Jenkins, P.E.

Some sustainable initiatives require capital investment, but many effective “green” ideas come from lifestyle choices that do not require additional costs. We should use these best management practices that require minimal costs, or provide cost savings over the long term, because they can help us meet our financial and environmental goals.

Simple measures can be taken that will protect our streams and rivers, prevent future capital outlays and sustain our riparian and aquatic habitat. Some low-cost measures include correct application of fertilizers, herbicides, and pesticides; reducing and polishing stormwater runoff from our yards; protecting riparian buffers around our streams and drainages; and proper disposal of medicine and household hazardous wastes. Cost/benefit analyses have been done throughout the country on these Low Impact Development (LID) practices; a bibliography of some of these analyses can be found on the Texas LID web site (www.texaslid.org). The photo above illustrates a



: permeable ground cover solution, which is considered a
: common LID practice.

: In addition, SARA is working through the Bexar Regional
: Watershed Management partnership to develop a sustainability matrix to help
: guide SARA and other governmental
: partners in implementing low impact
: elements in capital projects. SARA
: believes that leading by example is the
: best way to influence practices in the
: private sector, where sustainable practices
: will have the greatest overall effect as
: development continues.

: As stewards of our river basin, it is our
: collective responsibility to promote
: the best use of our tax dollars by first
: fostering sustainable life choices that
: can delay or remove the need for costly infrastructure.
: At the same time, we can promote the types of
: infrastructure that will serve our community’s needs in a
: way that supports all of our environmental and financial
: goals and responsibilities. ★





Sally Buchanan (left) and Hector R. Morales (right) are sworn in as Bexar County at-large Board Members by attorney David Ross (center).

BEXAR COUNTY AT-LARGE BOARD MEMBERS ELECTED

By Luke Habenicht

On November 8, 2011, the voters of Bexar County elected Sally Buchanan and Hector R. Morales of Bexar County to continue serving on the San Antonio River Authority (SARA) Board of Directors as at-large representatives for Bexar County. SARA holds Board of Directors elections every odd-numbered year on a staggered schedule. Board members serve a six-year term with no term limits. Six board members represent Bexar County—one each representing districts identical to Bexar County’s four commissioners court precincts, and two representing Bexar County at-large. Wilson, Karnes and Goliad counties each have two at-large representatives.

Buchanan, born and reared in San Antonio, graduated from St. Mary’s Hall. She earned a bachelor’s degree in art history in 1964 at Mills College in Oakland, Calif. She also earned a Texas Teacher’s Certificate in 1965. Buchanan then returned to St. Mary’s Hall as an art history instructor. From 1972 to 1989, she devoted her talents to a variety of professions, including social service caseworker for the Texas Department of Public Welfare, travel agent and meeting planner for the National Trust for Historic Preservation of Washington, DC. In 1989, Buchanan became executive director of the San Antonio chapter of the

: American Institute of Architects and has since been made
: an honorary member of the Texas Society of Architects. She
: has been a long-standing board member and president of
: the San Antonio Conservation Society and is vice president
: of the Kangaroo Court Restaurants, which have operated
: River Walk restaurants for more than 30 years.

: Morales is also a native of San Antonio, where he has lived
: for more than 60 years. He attended Holy Cross High School
: and received a bachelor’s degree in occupational education
: from Southwest Texas State University in San Marcos.
: Morales retired from the Civil Service after 26 years, and
: from the Texas Air National Guard after 29 years of service.
: He is an amateur bird enthusiast and enjoys working with
: stained glass, walking, running, hiking and camping.

: Board and Board Committee meetings are public meetings;
: the agendas are posted at the county clerks’ offices
: of Bexar, Wilson, Karnes and Goliad counties; with the
: Secretary of State; and on the bulletin board outside
: the San Antonio River Authority headquarters at 100 E.
: Guenther, San Antonio, Texas. SARA also posts its agendas
: online at www.sara-tx.org, under “Public Information>Board
: of Directors.” ★



MUSEUM REACH RIVER OF LIGHTS

By Gloria Rodriguez

The San Antonio River Authority (SARA) maintains and operates the San Antonio River Museum Reach, a 1.3-mile stretch of walking trails, public art, water features and landscaping from Josephine Street to Lexington Avenue. Last year, SARA, along with title sponsor CPS Energy, invited the public to participate in a new holiday tradition, The Museum Reach River of Lights, which consisted of 50 vibrant underwater lights and energy-efficient fiber optic lighting elements that added a kaleidoscope of changing color to the water features along the Museum Reach. Lamp posts were also wrapped with energy-saving LED holiday lights and colored gels were placed in lamp posts, hand rails and boat landing bollards to add even more holiday color.

This year, over 50 additional underwater lights were added to the Museum Reach. “We wanted to illuminate

the River in a way that stays true not only to the artistic nature of the Museum Reach, but also to our mission to sustain and enrich life in the watershed.

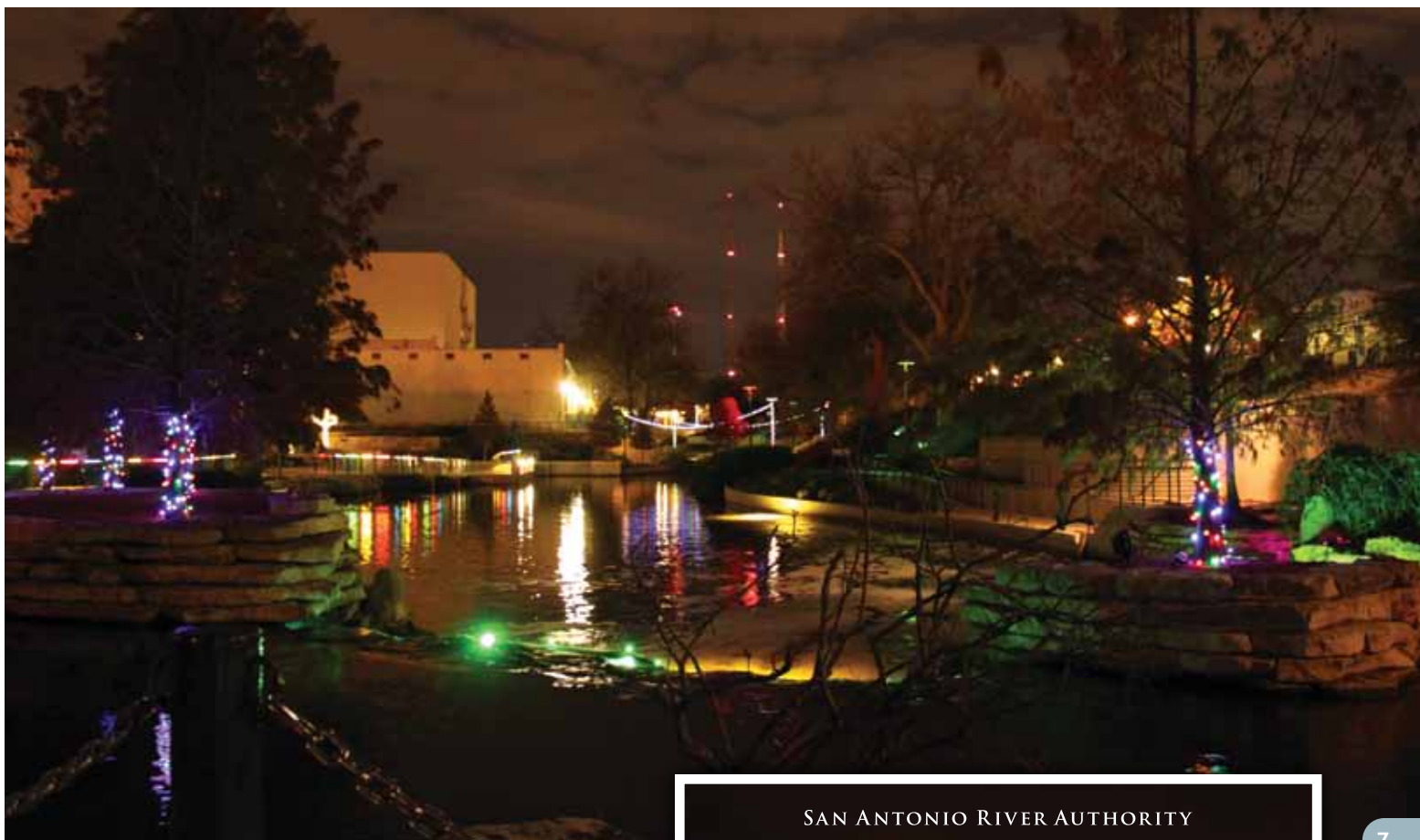
The underwater river lights are environmentally safe and emit ultraviolet and colored light that actually attracts the aquatic life,” said SARA General Manager Suzanne Scott.

The LEDs on the lamp posts were used once again this year, and LED holiday

light strands were draped across the river for the barge riders to travel under. More fiber optics were added to the water features as well.

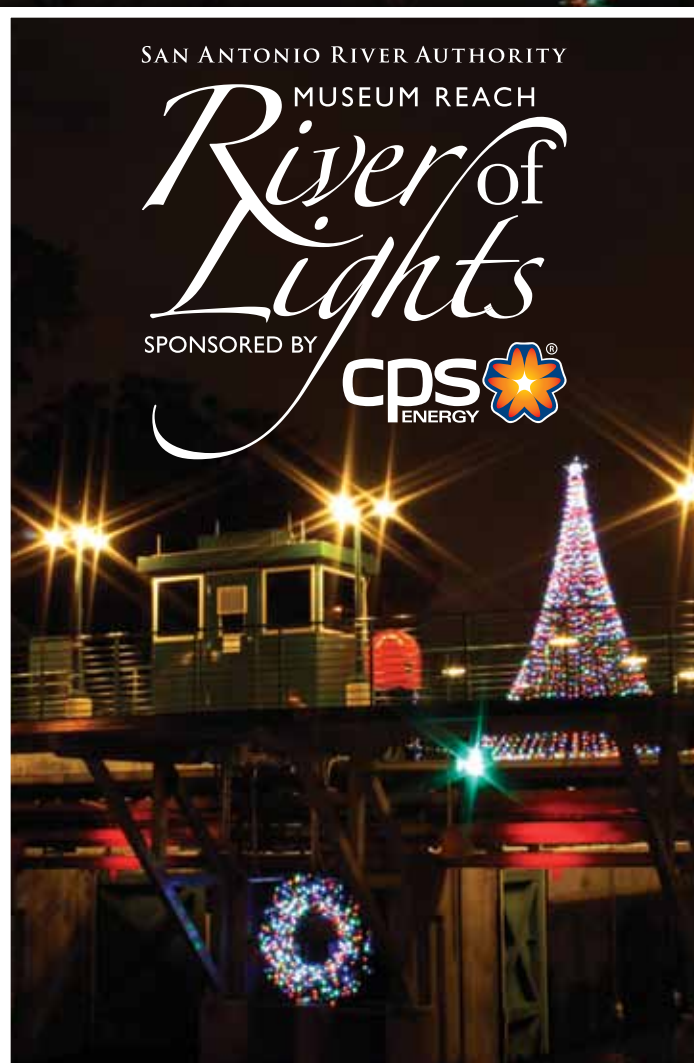
What else was new? Just north of the footbridge at the lock and dam structure near Brooklyn Avenue stood a 27-foot tall tree of lights, and if you traveled by barge north from downtown, you noticed a beautifully lit seven-foot wreath greeting you as you made your way into the lock chambers.





To kick off the month-long lighting celebration, SARA, along with CPS Energy and the San Antonio River Foundation, hosted a free River of Lights holiday event on Saturday, December 3 from 5:00 p.m. to 7:00 p.m. The event followed Pearl's day-long Tamale festival on the river stage located at Pearl's Amphitheater on 200 E. Grayson. Included were celebrity storytellers, Sax on Da Beach band, Alamo Pops Concert Band 2011 and even a visit from Santa! Free barge rides were provided by the San Antonio River Foundation along the Museum Reach. After the River of Lights event, guests made their way to the Tamale after-party at the San Antonio Museum of Art and festivities at VFW Post 76 along the river.

Museum Reach River of Lights ran from December 3, 2011 to January 1, 2012. For more information about the December 2011 Museum Reach River of Lights, log on to www.sara-tx.org. ★





LEARNING SARA

By Darrell T. Brownlow, Ph.D., SARA Board Member, Wilson County



Being the San Antonio River Authority's (SARA) newest board member, I recently had the opportunity to participate in a day long tour of SARA's operations. From southern Bexar through Wilson, Karnes and, finally, Goliad Counties, I saw firsthand and learned things about SARA's operations that I previously had no idea existed, or frankly never gave much thought to. But most of all,

I was struck by how important the San Antonio River has been, not only to our region's history, but to our future.

As a practicing geologist, I'm amazed at what a remarkable place and an exciting time we are living in. Within portions of SARA's management boundaries are the Edwards, Carrizo and Gulf Coast Aquifers; creeks like the Cibolo and many others; and of course the San Antonio River. Scattered up and down the river basin lie historic German, Polish and Czech communities dating back to the 1840s, and of course the Spanish Missions

: and the cradle of Texas Independence, the Alamo. The region's history has always centered on farming and ranching, but it's been spiced with uranium mining in the 1960s and 70s and is now being transformed by one of the largest oil and gas plays in the country's history.

: The point is this: we live in an area with a diverse culture, rich history and complex geology that should inspire our high school students to pursue careers in fields of study like petroleum engineering, geology, hydrology, archeology, anthropology and environmental sciences. Careers in these fields go beyond just a way to make a good living; they provide a path for the next generation to contribute to the construction, preservation and protection of our little spot in this great big world.

: Consider making the San Antonio River a part of your family's life, particularly your high school students. Spend a day cycling in one of SARA's parks or trails. Imagine the inspiration that could result from an adventure with your children or friends kayaking or canoeing down the river in southern Bexar, Wilson or Goliad Counties. When you actually take the time to see what's in your own backyard, I believe you'll agree the River is as important to our future as it has been to our past. ★

CREATING EFFICIENCIES, DRIVING SYNERGY

Russell A. Persyn, P.E., Ph.D., CFM

The world we live in is ever changing and requires public agencies to maintain flexibility in their organizational goals and structure. The San Antonio River Authority (SARA) began to change focus in the early part of the previous decade by creating a Floodplain Management Department, later renamed the Watershed Management Department. The aim was to take a group of engineers and keenly focus them on building expertise to partner with the Federal Emergency Management Agency (FEMA) and our local communities and remap all floodplains in our jurisdiction. The result was a more accurate representation of flood risk throughout the entire San Antonio River Basin as evidenced by the new Digital Flood Insurance Rate Maps. This investment was significant in both financial and human capital.

Meanwhile, the agency transitioned its Engineering Department from completion of the San Antonio River and San Pedro Creek flood tunnel projects to ensuring delivery of a new community vision, the San Antonio

: River Improvements Project. This put SARA in the role of project manager for a large-scale, multiyear, stakeholder-driven process.

: These advances challenged our traditional approaches to problem solving by showing our engineers that multiple disciplines were required to effectively solve our challenges. In addition, we have learned that SARA staff need to be cross-trained and possess both strong technical and communication skills. Therefore, we have recently consolidated our Watershed Management and Engineering Departments to further refine our development and application of expertise and watershed solutions.

: The consolidation of these two departments to the Watershed Engineering Department has allowed us to streamline our management oversight, create needed cross-training in technical expertise and more efficiently use support staff to achieve organizational needs. These changes allow us to lead and serve our constituents and partners more effectively. ★



GUIDED NATURE TOURS REVEAL THE RIVER BASIN

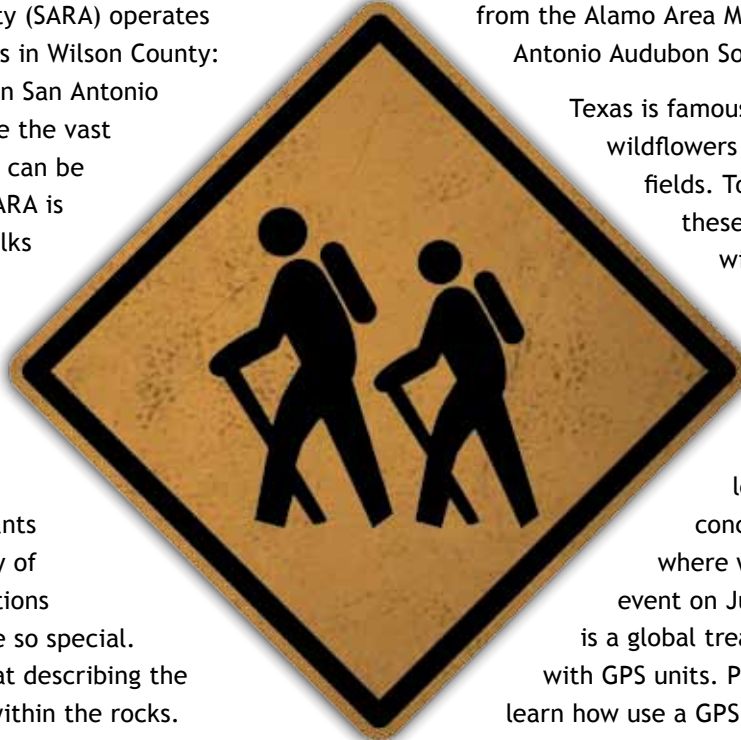
By Maura Dudley

The San Antonio River Authority (SARA) operates and maintains two nature parks in Wilson County: Jackson Nature Park and Helton San Antonio River Nature Park. To celebrate the vast array of natural resources that can be experienced at these parks, SARA is offering four guided nature walks during the 2011-2012 Season.

More than 40 people attended our first hike on November 12, which featured the unique rock formations found at Jackson Nature Park. Participants discovered the geologic history of South Texas, how these formations were created and why they are so special. Families also tried their hand at describing the properties of minerals found within the rocks. A local expert on geology, Dr. Thomas Ewing of the South Texas Geological Society, assisted SARA staff on this hike.

The remaining hikes will occur in the spring and summer of 2012. On March 10, at 8:30 a.m., we will host a bird identification hike at Helton Nature Park, where participants will learn to identify birds by their appearance and their call. This hike will be led by experienced birders

from the Alamo Area Master Naturalists and the San Antonio Audubon Society.



Texas is famous for its beautiful springtime wildflowers that cover its roadsides and fields. To enable people to identify these local flowers, we will offer a wildflower identification hike at Jackson Nature Park at 9:00 a.m. on April 14. Plant experts from the Alamo Area Master Naturalists, in addition to SARA staff, will lead this hike. Our season will conclude at Helton Nature Park, where we will sponsor a geocaching event on June 9 at 9:00 a.m. Geocaching is a global treasure hunt game that is played with GPS units. Participants in this event will learn how use a GPS unit to search for hidden geocaches throughout the park, while also enjoying the nature surrounding them.

To participate in any of these great hikes, we require reservations by 5:00 p.m. one week prior to the event, and each hike will have a limited number of participants. To reserve your spot, or to receive more information about these hikes, please contact Matthew Driffill at mdriffill@sara-tx.org. ★





SARA TRAVELING THE WORLD

By Laura Waldrum

San Antonio River Authority (SARA) staff have dedicated themselves to becoming leaders in watershed solutions. Because valuable natural resources are scarce all over the world, SARA's growing expertise in resource protection and preservation is leading to opportunities to spread knowledge developed in our watershed around the world.

In August 2011, Georgia Snodgrass (*pictured right, standing*) of SARA's Real Estate Department was selected by the Department of Defense to facilitate a one-week Asset and Property Management training series for civilian staff in the Air Force and Navy for the International Right of Way Association (IRWA) in Guam. Her years of hands-on property management experience made Georgia the perfect teacher for the series. Georgia has facilitated training seminars throughout the United States for the IRWA for the past four years.

In October 2010, Jim Doersam, P.E., (*pictured below*) of SARA's Watershed Engineering Department, was asked to serve on the Caribbean Green Technology Center (CGTC) Board of Directors by Dr. Wayne Archibald from



the University of Virgin Islands (USVI) due to his extensive background in solid waste recycling and water and wastewater treatment. Jim was asked to help evaluate various environmental issues on the islands of St. Thomas, St. John and St. Croix.

The focus of Jim's participation is solid waste disposal, as the landfills located on each island are at or near capacity. Alternative methods to conventional disposal are being considered, including composting, recycling and waste-to-energy. Because Jim has worked in the composting field for approximately 20 years, he has been asked to supervise a student at USVI who is conducting a feasibility study of composting on the islands.

As SARA staff build expertise in their various fields of resource protection and preservation, the benefits of their knowledge and experience continue to expand beyond the boundaries of the San Antonio River Watershed. ★





SARA TO CELEBRATE 75 YEARS OF SERVICE

By Steven Schauer

In 1917, Texans passed a Constitutional amendment allowing for the creation of special-purpose political subdivisions of the State to serve regional areas, generally coincidental with river basins and to be generally known as river authorities. The San Antonio River Authority (SARA) was created by the Texas Legislature in 1937, with a jurisdiction covering all of Bexar, Wilson, Karnes and Goliad Counties.

As 2012 approaches, SARA is preparing to celebrate 75 years of service. The 75th anniversary of the creation of SARA will take place in May 2012, followed by the 75th anniversary of SARA's inaugural board meeting in June 2012. SARA will commemorate these two significant milestones and will celebrate others throughout the remainder of 2012.

In addition to celebrating historical milestones, SARA will be adding a 75th anniversary page to its web site. Visitors to



the web page will be able to view various historical information related to the 75th anniversary and link to the University of Texas at San Antonio's Institute of Texan Cultures (ITC) to access SARA's archive collection. SARA used funds from a National Endowment for the Humanities grant to work with the ITC over the past few years to establish a permanent collection of SARA's historical records to be housed at the ITC.

There are other plans under development to celebrate SARA's 75th anniversary. For example, a special 75th anniversary edition of the *River Reach* will be published. A complete list of 75th anniversary events and activities will be made public in April 2012. As SARA celebrates 75 years of service, we will not only look back to recognize past achievements, but, equally important, we will continue to look forward in order to plan for and accomplish new milestones of service. ★

SOUTH TEXAS NATIVES

White-tailed Deer - *Odocoileus virginianus*

By Matthew Driffill

As the leaves start to fall, the days get shorter and the nights get longer in Central Texas, one of our most popular wildlife species becomes more active, much to the delight and dismay of Texans everywhere. The white-tailed deer (*Odocoileus virginianus*) can be found just about everywhere in the United States, including Texas. Winter means increased contact between humans and whitetail for several reasons. First, and possibly the most thought of reason, is hunting season. Whitetail season runs from the first weekend in November through January 1, 2012, with other special seasons depending on location and other factors.

Please consult the Texas Parks and Wildlife Department web site for specific information at www.tpwd.state.tx.us.

Winter is also whitetail breeding season, which means more deer activity and less concern for individual safety.

Furthermore, cold winter months and a slow growing season can lead to a lack of food for deer. This drives them into new areas in the search for food; it's not uncommon for deer to devour yards in suburban areas.

These two reasons are why there are more incidents involving deer and vehicles during the winter than other times of the year.



Deer are typically crepuscular, which means they are active mostly at dawn or dusk. However, it's not uncommon for them to be nocturnal (active at night) or diurnal (active during the day) if the conditions are right. Current estimates for the U.S. deer

population are around 30 million, with 3 to 4 million living in the Lone Star State. Whether you're taking to the roads to visit family and friends this holiday season, or heading out to the hunting camp, be safe and keep an eye out for white-tailed deer. ★



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RESPONDING TO TODAY'S CHALLENGES

By Suzanne Scott, General Manager

Next year marks the 75th anniversary of the creation of the San Antonio River Authority (SARA). To ensure that we remain ready and able to address issues in the San Antonio River Basin, our staff expertise and services have continued to evolve. Today, our focus is on honing our expertise to look beyond traditional approaches to seek innovative solutions that promote a sustainable ecosystem while also supporting economic development. Although these two objectives may appear in conflict, SARA's staff is working together to see that both can be accomplished for the benefit of the basin.

One way we are refining our expertise is through the merger of the Watershed Management and Engineering Departments. By joining our hydrologists, modelers and floodplain engineers with our project engineers, project managers and technical specialists in natural channel design, stream restoration and low impact development (LID), we are combining our resources to achieve more holistic approaches to challenges in the watersheds. Although SARA staff is accustomed to working on interdisciplinary project teams, joining our technical teams will promote sustained efficiencies and effectiveness of our core expertise areas.



Another way we are strengthening our technical delivery is through training and development. Engineering staff are advancing knowledge and skill in areas such as natural channel design; green infrastructure; LID; conservation development; non-structural flood management strategies; and the latest engineering approaches to promote operational efficiencies in water and wastewater treatment plants and associated distribution systems. SARA's scientists are expanding knowledge on the techniques and chemical elements used in hydraulic fracturing; advancing capabilities within the water quality laboratory; and increasing our data collection methods to analyze the impact of storm water and drought on the health of the basin's ecosystem. Growing our expertise enables us to be better service providers and brings more value to the communities within the basin.

"In times of rapid change, experience could be your worst enemy" is a saying that I take to heart. To remain responsive and relevant, we cannot rest on our past accomplishments, experience or even our tried-and-true engineering expertise; we must continue to progress to ensure that our employees are equipped to effectively address today's challenges. ★