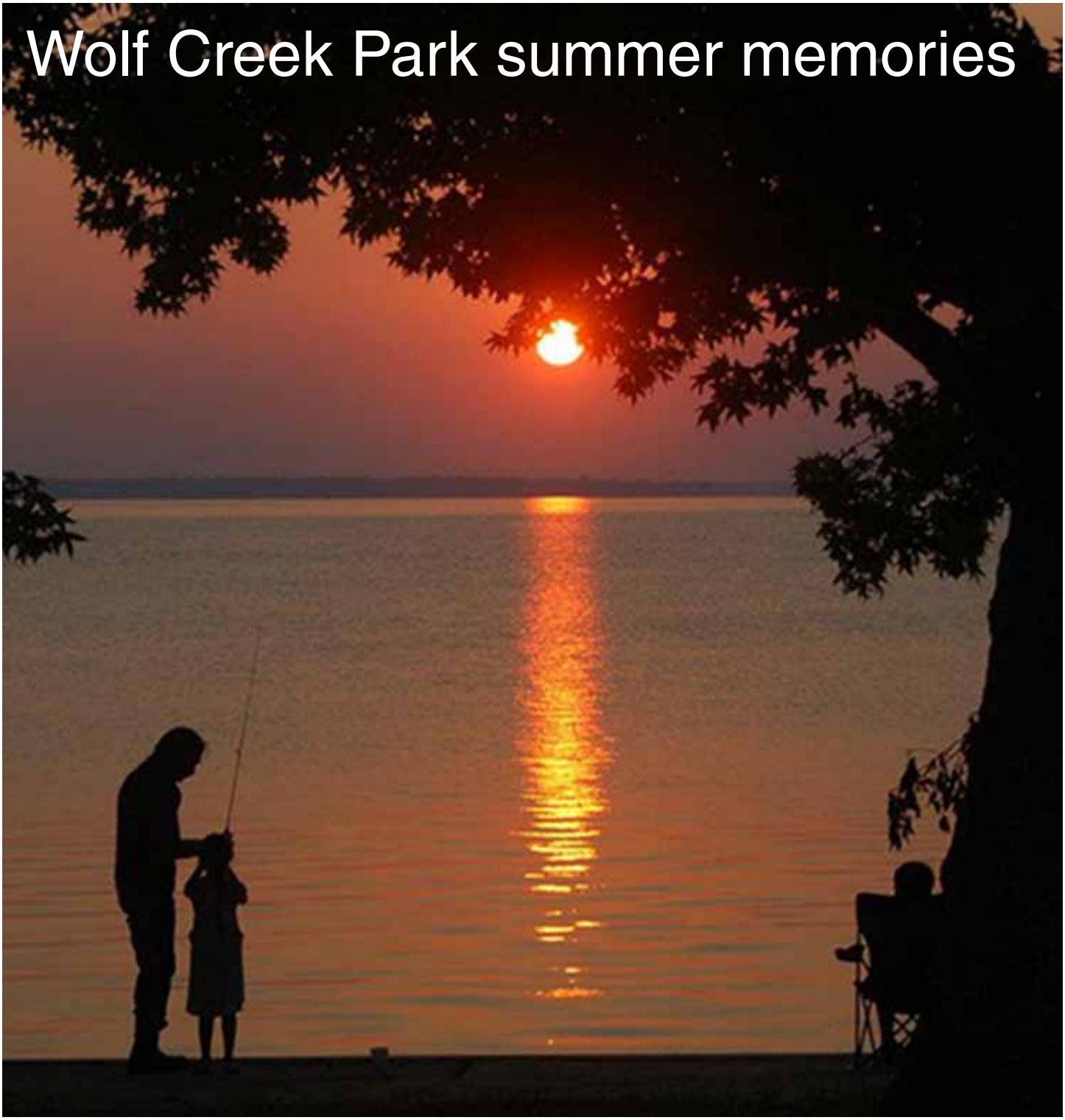
August/September 2012

intra

Newsletter of the Trinity River Authority of Texas

Wolf Creek Park summer memories



August/September 2012

intra

Newsletter of the Trinity River Authority of Texas

TPWD order strives to slow spread of zebra mussels

The Texas Parks and Wildlife Department recently issued an emergency order aimed at controlling the spread of zebra mussels after TPWD representatives discovered adult specimens of the bivalves in Lake Ray Roberts. This finding marks the first time officials have found the mussels in a reservoir of the Trinity River basin. TPWD suspects that Lake Lewisville, just downstream from Lake Ray Roberts, soon will be infested as well.

TPWD's order adds Lake Ray Roberts and Lake Lewisville to the list of lakes requiring boaters to drain boats, including live wells and bilges, before they leave those water bodies. Draining water from boats prevents the spread of a microscopic juvenile form of the zebra mussel called a veliger, which is invisible to the naked eye.

TPWD first documented zebra mussels in 2009 in Lake Texoma. Shortly after, the mussels also appeared in Sister Grove Creek, a 30-mile waterway that carries water from Lake Texoma to Lake Lavon.

Native to the Black and Caspian seas, zebra mussels found their way to the United States via the exchange of ballast water from oceangoing vessels passing through the St. Lawrence Seaway to ports on the Great Lakes. Since then, the rapidly propagating bivalves have spread south and east and are currently found in 29 states.

The mussels attach to natural and manmade hard surfaces below the water line, colonizing and building up in numbers until they pose a threat to infrastructure, aquatic ecosystems and private property.

Smartphone users can scan the QR codes below for additional resources, including guides to spotting zebra mussels, how to report zebra mussels if you find them, and step-by-step instructions for effectively cleaning boats and aquatic equipment.

texasinvasives.org

arlingtontx.gov/lakearlington

100thmeridian.org

protectyourwaters.net

Waters named Lake Livingston project manager

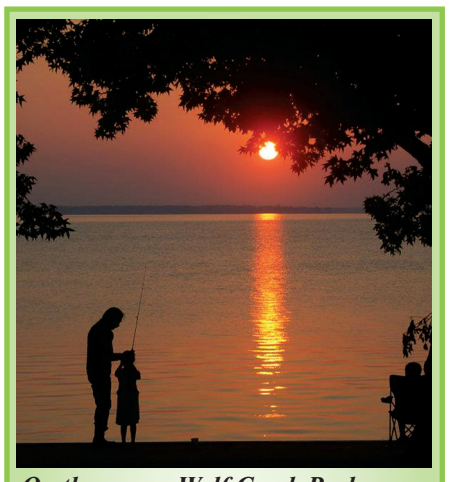
Lake Livingston Project Manager Mark Waters

The Trinity River Authority has named Mark Waters project manager at its Lake Livingston Project.

Waters takes the helm after serving as LLP assistant manager for nearly 20 years. As project manager, his main duties will include preparing and managing an operating budget in excess of $4 million; managing employees; directing reservoir operations; managing flood events; and managing repair and rehabilitation projects.

"Since 1993, Mark has lived on-site at the dam and unselfishly made himself available as a first responder to all types of situations involving management of the dam and our reservoir," said Southern Region Manager Jim Sims. "His background, knowledge and dedication to LLP are unparalleled."

Waters joined TRA in 1989 as a field inspector and advanced to assistant project manager within four years. He earned a bachelor's degree in wildlife biology from Texas Tech University and a professional sanitarian license from the Texas Department of State Health Services. In addition, he has completed training through the Federal Emergency Management Agency and the Texas Recreation and Parks Society.



On the cover: Wolf Creek Park visitors share their photos and memories on page 7.

TRA welcomes Water Careers Education intern

The Trinity River Authority is pleased to launch the second year of its participation in the Arlington Independent School District's Water Careers Education Program by welcoming Larry Teague as an intern for the 2012-2013 school year.

Designed to introduce high school students to career opportunities in the water industry, the program began last year as a joint effort between the AISD and the city of Arlington. Sixteen students enrolled over the course of the year, and all received TCEQ-approved training to qualify for the D water treatment license exam upon graduation. The program provided six internships within the water industry, and students also participated in field trips and heard from classroom guest speakers. After completing the program, two students have accepted jobs in the water industry.

Several students also competed in March in a preliminary Junior Meter Madness competition hosted by the city of Waco, and AISD's Adam Noonkester garnered a third-place win. He then competed in the statewide Junior Meter Madness competition at Texas Water in San Antonio and won second place overall.

"We're very pleased with the success of last year's program, and we look forward to introducing more students to opportunities in our industry during this school year," said Julie Hunt, TRA's Northern Region manager of operations. "Programs like this that combine classroom water-science studies with hands-on experience in the field are key to preparing our industry's future work force."

During this year's internship, Teague will rotate among TRA offices and treatment facilities to become familiar with everything from water resource planning and production of potable water to collection and treatment of wastewater and the study of habitats and ecosystems throughout the Trinity River basin. He will complete a series of month-long immersions in TRA's Northern Region; Tarrant County Water Supply Project; Central Regional Wastewater System; and Planning and Environmental Management Division.

Larry Teague

According to the American Water Works Association, almost 50 percent of today's water and wastewater operators will retire between the next five to seven years. Curricula such as the AISD Water Careers Education Program can help encourage young people to explore the diverse opportunities available to them in the water industry.

Inside:

Innovative pipe assessment technology 2
Muñoz joins LLP admininstration 2
Epps joins finance 2
DCRWS fights odors..... 3
TMCRWS updates I/I study 3
TRA embarks on strategic planning 4
PEMD studies Trinity 4
CReWSers win regional..... 6
Peak Performance Awards. 6
Walker-Calloway 6
CRWS lab judged 100 percent accurate 6
Wolf Creek Park..... 7
Nutrient criteria examined.. 7
Burns, stepdaughter win photo contest .....back page

See more stories online in Current News.

Rolling with the Smartball™ and swimming with the Pipediver™: new technology saves time and money

The Trinity River Authority's Tarrant County Water Supply Project recently employed state-of-the-art Smartball™ and Pipediver™ technology to detect leaks and assess the condition of more than eight miles of a concrete cylinder pipeline that transports raw water from Lake Arlington to the treatment plant in Euless.

The 30-inch line, one of two running from the lake to the plant, began operation in 1974 and is now 38 years old. TRA management scheduled a thorough assessment of the aging pipe after TCWSP detected and repaired a number of leaks during the past two years.

Smartball™ is a free-swimming, non-tethered foam sphere, about the size of a softball, with a two-inch aluminum core that contains instruments capable of detecting the acoustic activity associated with leaks and pockets of trapped gas in pressurized pipelines.

"As it floats along, Smartball™ listens for the sound of a leak," said Ron Tamada, Northern Region manager of engineering services. "It detects the presence of a leak and pinpoints its location within 10 feet."

A contractor deployed the Smartball™ at a specially prepared access point near the lake and tracked its progress as it traveled with the flow of water through the pipe. If all had gone as planned, it would have covered the entire 44,800-foot length of the pipe and arrived at the TCWSP treatment plant in about six hours. However, the Smartball™ traveled into still water at about the 32,000-foot mark at a point where the pipeline increases in size. Trapped in a dead zone of non-moving water, the device stalled for 24 hours until engineers opened a nearby valve to increase flow velocity, effectively pushing the Smartball™ back on course. It then traveled the last two miles to the plant, where contractors extracted it from the pipe and began downloading information. Because the increased velocity from the open valve stirred up particles in the water, the Smartball™ was unable to take readings after it was dislodged at mile six. Contractors plan to redeploy the device to finish gathering data as soon as possible.

While the Smartball™ listens for leaks, the Pipediver™ employs electromagnetic technology to detect changes in the pipe's concrete walls and steel reinforcement wires.

"This device will give us a three-dimensional picture of the pipe's structure," said Tamada. "Once the report is complete, we will know if wires are exposed by thinning or broken concrete."

The Pipediver™ resembles a stainless steel cylinder with three segments, one containing the electromagnetic technology module, one with a tracking module and a third with a battery to power the other two modules. Flexible fins extending from the segments provide propulsion and stability, allowing the Pipediver™ to navigate through valves and around bends.

As of press time, the Pipediver™ was on track to complete the eight-mile journey from Lake Arlington to TCWSP in about seven hours.

Once the dual-pronged assessment is complete, the contractor will present initial findings within days.

TRA management anticipates receiving a detailed leak report by the end of October and a complete pipe wall condition report by the end of the year.

Before Smartball™ and Pipediver™ technologies came along, pipes were routinely dewatered and inspected via a video camera mounted on a crawler tethered to an access point. Inspecting an eight-mile pipe took much longer and usually required the construction of several access points, which substantially increased costs. In addition, dewatering the pipe wastes water. If camera inspection was not possible, personnel excavated and entered pipes to perform a visual inspection, an even more time-consuming and expensive method.

The Smartball™ and Pipediver™ technology rapidly provides superior quality data with no disruption to plant operations.

TCWSP provides drinking water to the cities of Bedford, Colleyville and Euless, along with portions of Grapevine and North Richland Hills.

Northern Region Manager of Engineering Services Ron Tamada looks over the Smartball™ and the Pipediver™ before they launch to assess a 30-inch raw water pipe that runs for eight miles from Lake Arlington to the TCWSP treatment plant.

Working in an underground vault, a construction crew removes a flange from a raw water pipe in order to launch the Pipediver™. The Smartball™ launched through the 6-inch opening on top of the flange.

Muñoz joins LLP administration

Kristi Muñoz, formerly a biologist in the Lake Livingston Project water quality laboratory, has joined LLP administration as office coordinator.

Muñoz first joined the lab as an intern in 2000 and subsequently served as a biologist for over 12 years, where she proved skilled in operating sensitive analysis equipment and also served as the quality assurance officer under the National Environmental Laboratory Accreditation Program.

"The transition to office coordinator has gone very well for Kristi and for all of us here at the lake," said LLP Manager Mark Waters. "She's been able to take over the many aspects of her new position, including human resources, payroll and coordinating various departments, without ever missing a beat."

Muñoz earned a bachelor's degree in environmental science from Sam Houston State University.

LLP Office Coordinator Kristi Muñoz

Epps joins TRA financial services division

The Trinity River Authority welcomes Christine Epps as financial reporting manager. She will oversee the production of periodic financial reports, develop performance benchmarks, manage production of TRA's annual budget and forecasts, and provide financial analyses as needed – in particular for rate calculations. Epps will also manage TRA's external audit process.

"Christine brings a fresh perspective to our financial reporting activities, along with significant experience working with other public-sector entities, including cities, school districts and water districts in the DFW Metroplex," said Alison Mackey, TRA's chief financial officer. "She's hardworking and goal-oriented, and I'm confident that her extensive audit experience will serve TRA well."

Epps joins TRA from Deloitte & Touche LLP, where she served as a senior auditor since 2009. She is a Certified Public Accountant and earned a bachelor's degree and a master's degree from Texas Tech University.

Financial Reporting Manager Christine Epps

DCRWS practices good-neighbor policy with multi-faceted odor control program

TRA's Denton Creek Regional Wastewater System continues to provide quality wastewater treatment services while maintaining its commitment to being a good neighbor to residents and students in the nearby Roanoke community.

DCRWS maintains existing odor control methods, while developing and implementing new procedures. For example, a double row of 18-foot cedar trees planted in 2011 lines the edge of the plant both to create a physical barrier and to provide a pleasant aroma. Unpleasant odors rise over the tree line, causing the smells to disperse. A mobile atomizing unit also mists the air with fragrance, and canopies over various parts of the treatment process help to contain odors within the facility. Since churning wastewater causes foul-smelling hydrogen sulfides to form, the influent is injected with hydroxl ions, reducing the concentration of hydrogen sulfides in air pockets in areas such as bar screens and pretreatment. Magnesium hydroxide is injected in three places in the collection system, increasing the pH of the wastewater and preventing the release of dissolved sulfides.

Additionally, DCRWS plant manager John Bennett is actively involved in community outreach and education. He has given detailed presentations about the wastewater treatment process at three Roanoke town hall meetings and has written columns for the Briarwyck Homeowner's Association quarterly newsletter. Bennett also has hosted tours of the plant and personally addresses many homeowners' questions when odors arise.

The DCRWS staff continually strive to optimize plant processes to reduce odors. For example, operators continuously monitor odor logging units throughout the plant, the nearby neighborhood and the collection system; adjust the pH of treatment processes as necessary; and monitor cycle times in pump stations and lift stations to ensure that influent is kept moving toward the plant and not allowed to stagnate.

DCRWS also completed an odor control master plan in August of this year. In the adjacent neighborhood, TRA installed in-line check valves at the three points of entry into the collection system, and the city of Roanoke partnered with DCRWS to replace all city manholes that were not securely fastened. The new in-line check valves and manholes will prevent smells commonly contained within the pipelines from escaping into the atmosphere. The master plan also calls for detailed air-quality surveys; evaluations of conditions at the plant associated with foul odors; operation recommendations to help mitigate odors; and a system for rating the strength of perceived smells in order to give operators a clearer idea of the types of odors. Future plans include reducing earthy and ammonia smells through improved filtration, plus the addition of dispersal fans to blow odors up and away from the nearby community.

TRA also recently launched an improved odor log form on its website. Users can find the new odor report form at http://odorreport.trinityra.org. The new form allows residents to create a permanent login ID so that they easily can report unpleasant smells. Users are asked to provide a street address, phone number and email address so that DCRWS staff can correlate odors with various points in the collection system and, if needed, personally contact residents. The new system also will give users the option to receive email updates from DCRWS when there is a possibility of increased odors – for example, race weekends at Texas Motor Speedway or temporary equipment challenges.

A double row of cedar trees provides a physical barrier between the plant and an adjoining housing development. The trees also emit a pleasant fragrance.

"Operating a wastewater treatment plant is part art and part science," said Bennett. "There are biological-chemical occurrences that we know will happen. The art is creating an environment for them to happen in the most optimum way, so you get the greatest amount of treatment at the lowest cost for customers while remaining a good neighbor to the surrounding community."

These continued improvements demonstrate DCRWS' concern for both efficient and cost-effective wastewater treatment, along with its desire to respect the needs and concerns of the surrounding community.

DCRWS began operation in May 1990 and provides service to Fort Worth, Haslet, Roanoke, Southlake, The Circle T Municipal Utility District Nos. 1 and 3, Keller, Northlake, Flower Mound, Westlake and Argyle.

TMCRWS to update infiltration and inflow study

The Trinity River Authority soon will update Ten Mile Creek Regional Wastewater System's inflow and infiltration assessment to incorporate changes that have occurred in the system since the last study in 2004.

Inflow is stormwater that rapidly flows into wastewater pipes via roof drain downspouts, foundation drains, storm drain cross-connections and holes in manhole covers. Infiltration is groundwater that seeps in through holes, cracks, joint failures and faulty connections in wastewater pipes. Groundwater can be present year-round but also can vary in response to storm events, especially prolonged periods of precipitation that raise groundwater levels. The higher the level of groundwater surrounding a pipe, the more likely it is to infiltrate.

Excess water in collection system pipes is undesirable for several reasons. It takes up capacity and sometimes makes it necessary to install larger pipes than are needed for normal wastewater flow. Similarly, it increases flow to the treatment plant, where it then undergoes the same treatment as raw wastewater, resulting in higher treatment costs.

In extreme cases, inflow and infiltration can overfill collection systems and overflow into waterways, negatively impacting public health and the environment. TMCRWS management estimates that inflow and infiltration make up 80 percent of peak wastewater flows during wet season months.

TRA completed a comprehensive inflow and infiltration assessment for the TMCRWS' collection system in 2004 that comprised an inventory of the system's components including pipes, manholes and lift stations. The study also estimated current and projected population figures for the system's service area, as well as employment and development projections. In addition, engineers installed a number of temporary flow monitors to more accurately define flows by smaller watersheds within the individual contracting party service areas. Finally, they correlated long-term rainfall data with metered wastewater flows to generate a model of inflow and infiltration.

The resulting assessment report quantified the amount of inflow and infiltration in the TMCRWS interceptor system, identified how much was generated within each contracting party's collection system, and recommended capital improvements necessary to maintain and to improve the integrity of TMCRWS' interceptors.

The TMCRWS service area has undergone significant changes since the 2004 assessment, prompting TRA management to update the study. Consulting engineers will update the existing model with collection system components added since the last assessment. They also will update population, employment and development projections. This update will provide interceptor-wide future flow projections for the years 2020, 2040 and 2060 by manhole and hydraulic flow analysis, and will assist TRA in prioritizing future interceptor capital improvements.

Consulting engineers began gathering data in mid-2012 and expect to issue the updated report by the end of 2013.

TRA's TMCRWS treats wastewater for more than 240,000 people in portions of Cedar Hill, Duncanville, DeSoto and Lancaster in Dallas County, and all of Ferris in Ellis County. Wastewater from these customer cities travels through 53 miles of pipelines to the 24-MGD treatment plant in southeast Dallas County.

General Manager's Message

TRA embarks on strategic planning effort

General Manager J. Kevin Ward

Autumn is a busy season for the Trinity River Authority. Poised between one fiscal year and the next, we're looking back to evaluate the past year while preparing budgets and goals for the next. And this year provides cause for more comprehensive reflection than usual – TRA's management audit, due in five-year cycles, must be presented to the Texas Commission on Environmental Quality by the end of this year.

We're not alone in this project. River authorities in Texas are required to submit a management audit to the TCEQ every five years. Each audit's major goal is to ensure that we're accountable for an accurate presentation of resources and activities, plus the efficient, effective use of our resources to provide the services that align with our stated goals – usually set forth in a river authority's enabling legislation. River authorities also use this opportunity to acknowledge effective management practices for managing day-to-day operations, and to identify opportunities where those practices may be improved.

In pursuit of this requirement, TRA management is now working with an outside consultant to review our key functions and prioritize and allocate resources among them. Areas of specific interest include our regulatory/policy environment; organizational structure; performance measurement; policies and procedures; human resource management; and fiscal/revenue management. The process thus far has included an extensive review of documents, plus in-depth interviews with TRA employees and customer representatives to identify strengths, opportunities, weaknesses and threats. In fact, many customer representatives who attended our budget meetings in early September participated in this process, as have several employees at TRA's general office.

Our management team has approached this process with the primary objective of improving TRA's overall effectiveness and efficiency in operations, administration and management. And while the five-year audit fulfills a TCEQ requirement in the short term, it also presents an opportunity to pursue a more comprehensive, organization-wide planning process for the long term. In fact, this required management audit will serve as the diagnostic phase of a more holistic organizational strategic plan that TRA will pursue.

Research is clear that organizations that perform at the highest levels have some sort of formalized strategic plan in place and are able to implement it effectively. A solid strategic plan helps provide direction and focus for every stakeholder who touches an organization, and it outlines specific results that must be achieved. The plan also establishes a course of action for achieving those results. Above all, such a plan helps everyone within an organization align efforts toward common goals.

This is what our management team and our board of directors want for TRA – full alignment and mobilization toward a set of common goals, along with the roadmap for how to get there. Much of what we accomplish at TRA will always be regulation driven, and we will always tailor our operational processes so that we meet and exceed the regulatory guidelines of our environment. But – we still have an opportunity to go beyond what is required or expected – to establish performance targets that can be subsequently measured, monitored and embedded in our work culture. A comprehensive strategic plan will keep us looking to the future, and will help us maintain our commitment to using our resources in the most efficient and effective ways.

At TRA, we are stewards of an outstanding organization with a tremendous legacy of excellence. The goal of our leadership team and our board of directors is to foster and to protect that legacy, along with enriching it at every feasible opportunity.

A true strategic planning process is multi-layered. In order to be successful, such an effort is going to require extensive feedback from everyone TRA depends upon for its success – board members, employees at all levels, partners and other stakeholders. That feedback may take many forms – everything from focus groups to surveys and in-depth interviews. I hope that when called upon, each of you will give this process your full effort and support. Please keep reading *inTRA*, the TRA website and other publications for further information on how this process will unfold beginning in early 2013, and I thank all of you for everything you do each day to support TRA's vital role in the Trinity River basin.

PEMD busy collecting data on channel, aquatic behavior

The Trinity River Authority's planning and environmental management division is hard at work on two special river studies designed to further our understanding of the Trinity River.

The first of these is a long-term channel monitoring project. The PEMD team collected data from four different sites at low flow during July, taking sediment samples and surveying channel geometry and water surface slopes at sites throughout the mid-basin. Manager of Special Studies and Assessments Webster Mangham and his team will return to these sites after a major pulse flow to determine what, if any, changes are taking place.

"Rivers are dynamic systems that change over time," said Mangham. "As the watershed changes, increasing or decreasing flow, so does the river."

One thing is certain, however: rivers work toward self-stabilization. For example, a river may move within its floodplain, but it is still considered stable if its geometry remains constant. Rivers perform the important function of moving water and sediment downstream, and significant problems can occur when this task is not accomplished.

"The main stem of the Trinity River acts as a pipeline to Lake Livingston, one of Houston's primary sources of water, so the dynamic stability of the river is very important," said Mangham. "If excessive erosion causes increased sediment to be transported downstream, it will settle out in Livingston, and we'll lose storage capacity. That means Houston will have less water in the future."

The team is also conducting a biological monitoring program in partnership with the Texas Instream Flow Program, which is an interagency team made up of staff from the Texas Commission on Environmental Quality, the Texas Water Development Board and the Texas Parks and Wildlife Department. The biological monitoring program is a precursor to Senate Bill 2 environmental flows work, which seeks to use on-the-ground data collection and analysis to help determine the amount of flow required to sustain an ecologically sound environment.

Mangham and his team will continue to provide office and field assistance to the TIFP during field data collection at six different sites over a period of four weeks running through October. The team will collect fish, aquatic insects and structural data from each type of habitat within a two-to-four-mile reach of the river. The data will play a key role in the selection of indicator species – species that are integral to determining environmental flows – during the upcoming SB2 stakeholder process scheduled to begin in the spring of 2013.

"The types of fish they find can tell scientists a great deal about long-term water quality," said Glenn Clingenpeel, senior manager of TRA's planning and environmental management division. "Hardy fish, for instance, usually can withstand poor water quality. When only these kinds of fish (so-called 'tolerant species') are found, it usually means water quality isn't able to support a more diverse group of aquatic organisms."

So far, scientists have lacked first-hand biological data from the main stem of the Trinity River. The data and observations from this study will be an essential component of a successful SB2 process.

TRA's planning and environmental management division is currently collecting fish like this 24-inch small-mouth Buffalo, as well as aquatic insects from different habitats in the main stem of the Trinity River, in an effort to garner information about long-term water quality.

Employee Milestones

New Hires

LLP welcomes **Richard Gladden** as security guard and **Susan Patterson** as biologist.

LRF is excited to have **Gary Miksch** and **Christopher Rogers** as seasonal park attendants.

CRWS is happy to have **Gene Paul** as training coordinator, **Wendy Hall-Alley** as senior secretary, **Nicholas Padilla** as electronic technician and **Wilson Morales**, **Alton Davenport** and **Joseph Chapa** as operators I.

ROCRWS welcomes **Omar Maisonet** as maintenance mechanic.

GO welcomes **Laura Peña** as senior secretary and **Christine Epps** as manager of financial reporting.

Promotions

Mark Waters was promoted to project manager at LLP.

Michael Miller was promoted to electronics chief at CRWS.

Paul Hopkins was promoted to senior operator at CRWS.

Robert Sweet was promoted to senior park ranger at LRF.

William Stripling IV was promoted to park ranger at LRF.

Kristi Muñoz was promoted to LLP office coordinator.

Current Events

Payroll Specialist Peggy Stewart and her husband, Richard, celebrated their 35th wedding anniversary Sept. 2.

MCRWS Operator II David Scott and his wife, Patti, celebrated their 10th wedding anniversary by climbing Twin Sisters Mountain in the Rocky Mountain National Park in Colorado. David and Patti are seen here on the summit at 11,400 feet.

Correction

General Office Paralegal Stacie Dowell has earned a third-degree black belt in taekwondo. This was incorrectly listed in the last issue of *inTRA*.

General Manager Kevin Ward and his son, Jacob, celebrate catching this impressive fish during a recent summer vacation in Florida.

CRWS Senior Secretary Lynn Hall-Alley presents Anna Price, daughter of CRWS Chief Operator Steve Price, and Allison Bennett, daughter of DCRWS Project Manager John Bennett, with scholarship checks from the Daryl Hall Memorial Scholarship. Anna and Allison are both students at Tarrant County College. The Daryl Hall Memorial Scholarship is available through the Water Environment Association of Texas to employees of North Texas utilities and their immediate families.

Thirty-eight teams of golfers, including several TRA employees, and 30 volunteers recently participated in the Ninth Annual Daryl Hall Memorial Golf Tournament to raise funds for the Daryl Hall Family Fund. Hall was a former TRA employee who suffered an untimely death due to cancer, leaving a widow and two young children. The fund was established to provide Hall's children with financial resources to attend college. In addition, portions of the proceeds go to the Wounded Warrior Project and the Daryl Hall Memorial Scholarship Fund that provides scholarships to North Texas utility employees and their families. Daryl's children, Stephanie and Jared, are seen here with DCRWS Project Manager John Bennett.

Andrew Esquibel, DCRWS maintenance mechanic II, and his fiancé, Jennifer Ramos, welcomed twin sons to the family May 23. Andrew was 7 pounds, 4 ounces and 21 inches long at birth, while Gabriel was 6 pounds, 12 ounces and 21 inches long.

Christen Holder, daughter of Southern Region Assistant Manager Bill Holder, recently earned a doctorate in psychology from the University of Texas at Austin. Prior to graduation, she completed a pre-doctoral internship at Primary Children's Medical Center in Salt Lake City, Utah. Dr. Holder recently accepted a position as a pediatric neuropsychology fellow with the University of Arkansas for Medical Sciences in Little Rock. In her new position, she will provide a broad range of neuropsychology services to children at Arkansas Children's Hospital.

CRWS Biologist Lucas Janiszewski recently became a citizen of the United States. CRWS lab staff helped him celebrate with a Captain America T-shirt and a cake decorated to resemble an American flag. Lucas is originally from Poland and lived in Canada before immigrating to the United States.

Northern Region Engineering Services Manager Craig Crowder serves up a pingpong ball to raise money for TRA's General Office United Way Campaign. In addition to pingpong, employees could play basketball, darts or golf for a contribution of $3 a game. They also contributed funds by purchasing blue-jean casual days, signing up for payroll deductions and making one-time cash contributions. Team competition fueled the campaign, with the white team securing the most points to win the general manager's prize: tickets and an afternoon off to see a Rangers game, plus an additional half-day of vacation.

CReWSers win regional Operations Challenge

In early September, the Trinity River Authority's CReWSers Operations Challenge team took first place in a regional competition in Ocean City, Md.

Competing against four of the top U.S. Operations Challenge teams, the CReWSers captured first place in the safety and process events, second place in the laboratory and collections events and third place in pump maintenance.

"This was the first time a team outside of Virginia has won this competition," said Mike Young, team trainer and manager of system operations and maintenance at TRA's Central Regional Wastewater System. "The team focused on accurately completing each event to avoid penalties. This is the strategy that works best for the CReWSers."

Although regional contests don't count toward the team's official record, the events are designed and judged much the same as the national competition and can give teams a preview of what to expect. In addition, winning the regional competition added to the team's momentum as it prepares for the national competition in October in New Orleans.

"So far, 2012 has been one of the most exciting, successful years for the team," said CReWSers Team Captain Dale Burrow.

In April, the CReWSers swept the state competition to secure the team's 15th consecutive championship. Shortly after, team members Jacob Burwell and Steve Price, along with members from the Dallas Aquatechs and the Austin Dillo Xxpress, represented Texas at an informal regional competition in Atlantic City, N.J.

To cap things off, Burrow also competed on the U.S. dream team in Argentina in May.

To keep the momentum going, the CReWSers began training for the national Operations Challenge competition immediately upon returning to Texas after the regional competition. Later this month, the team will practice with other Operations Challenge teams from Texas and Arkansas, as well as the Argentine national champions.

Scan the QR code below to see exciting footage of the collections event at the 2011 national Operations Challenge competition.

Visit the TRA website at www.trinityra.org and keep reading *inTRA* to see the latest news on the CReWSers.

TRA's regional wastewater systems earn Peak Performance Awards

The National Association of Clean Water Agencies has honored the Trinity River Authority's five regional wastewater treatment systems with Peak Performance Awards for 2011. NACWA distributes Peak Performance Awards for compliance with each system's National Pollutant Discharge Elimination System permit limits.

Gold Awards honor projects that have achieved 100-percent compliance with NPDES permit limits for an entire calendar year. Silver Awards recognize facilities that have received no more than five NPDES excursions throughout the calendar year.

NACWA's prestigious Platinum Award recognizes 100-percent compliance with NPDES permits over a consecutive five-year period. Platinum Award status continues, year after year, as long as a plant remains 100 percent compliant.

All five of TRA's regional wastewater systems achieved 100-percent compliance in 2011, earning Gold and Platinum awards.

"Qualifying for these awards year after year is challenging but worth the effort," said Northern Region Assistant Manager Patty Cleveland. "Our first obligation is to protect public health and our environment. The NACWA Peak Performance Awards are the best indicator that we are fulfilling that mission."

Central Regional Wastewater System received a Platinum 18 Award for an outstanding 18 years of 100-percent compliance with the system's permit limits. CRWS is one of only 11 systems nationwide to achieve this feat.

Red Oak Creek Regional Wastewater System earned a Platinum 12 Award for 12 years of compliance.

Ten Mile Creek Regional Wastewater System received a Platinum 10 Award and Denton Creek Regional Wastewater System earned a Platinum 7 Award.

Mountain Creek Regional Wastewater System earned a Gold Award for maintaining 100-percent compliance with its permit limits.

TRA's wastewater treatment plants discharge more than 53 billion gallons of treated effluent to the Trinity River basin each year. This clean, clear water enhances the environment from North Texas to Trinity Bay on the Gulf of Mexico, especially during periods of dry weather, when almost all of the water in the river comes from wastewater treatment plants in the upper reaches of the basin.

TRA, customer cities evaluate condition of Walker-Calloway Branch Outfall

The Trinity River Authority's board of directors recently approved an engineering services contract to conduct an evaluation and condition assessment of the Walker-Calloway Branch Outfall Project.

The Walker-Calloway Branch Outfall is a 4.7-mile pipeline that transports wastewater from North Richland Hills and Hurst to a discharge point in the city of Fort Worth wastewater system for further transportation to a city-owned treatment plant.

Although the Walker-Calloway system has provided exemplary service since 1970, the 42-year old pipeline is beginning to exhibit signs of age. A line collapse in 2009 and a damaged encasement in 2011 required emergency repairs and pipe replacement, leading TRA management, together with the cities of Hurst and North Richland Hills, to pursue a condition assessment of the entire system.

Engineers will inspect all pipes and manholes and report on the condition of each. They will also provide GPS survey and mapping services, as well as a preliminary capacity assessment. The assessment began mid-2012 and is expected to be complete by the end of the year.

CRWS laboratory earns perfect proficiency score

The Trinity River Authority's Central Regional Wastewater System laboratory recently attained 100-percent accuracy as part of lab proficiency testing through the Texas Commission on Environmental Quality's NELAC Institute accreditation process – formerly the National Environmental Laboratory Accreditation Program.

As part of Texas' effort to assure precision, accuracy and sound procedures from laboratories supplying environmental data, the TCEQ requires all such laboratories to complete national studies on a twice-yearly basis through vendors approved by the NELAC Institute.

The CRWS laboratory completes studies related to three accreditation matrices: non-potable water, drinking water and solid chemical materials. NELAC audits are the professional laboratory's version of a final exam – the lab team analyzes single-blind samples and submits its findings to the approved third party for "grading." This year's test required the team to measure properties of 233 different non-potable and drinking water analytes, or chemical constituents of interest.

"A 100-percent score in this proficiency testing is a great accomplishment for our team here in the lab," said Laboratory Division Chief Craig Harvey "This process is an objective way to show that our team has the right credentials, the right knowledge and the right processes to ensure that we're delivering the most accurate data possible."

Almost all statewide environmental compliance and regulatory decisions are based on environmental data. In order for government agencies to take sound and cost-effective actions that protect both public health and the environment, they must assure the quality of the environmental data they use for decision-making.

The CRWS lab provides an extensive array of services for TRA water and wastewater treatment customers, along with serving TRA's five regional wastewater treatment systems and its Tarrant County Water Supply Project. In addition, the lab provides analytical testing for area municipalities and other government agencies.

Anniversaries

15 Years

Olivia Mba, senior biologist, CRWS
Michael S. Miller, electronics chief, CRWS

5 Years

Clayton M. Tidwell, electronics technician I, CRWS
Jeffrey K. Saunier, inspector II, CSS
Stephanie D. Schultz, inspector II, CSS
Gary M. Smith, senior biologist, TCWSP

3 Years

Marcus M. McAdams, inspector I, CSS
Thomas F. Baker, operator I, TMCRWS
Sean M. Krystal, operator II, CRWS
Justin C. Rouse, operator I, CRWS
Vidal R. Guerra, maintenance mechanic II, CRWS
Webster M. Mangham, manager of special studies and assessments, GO
Kenny T. Nguyen, information tech. support specialist, GO

Wolf Creek Park summer memories

Sunrise at Wolf Creek Park. Photo by Amanda Jordan, Jortrell Photography.

Throughout the summer, families enjoyed the natural beauty and many amenities of Wolf Creek Park.

Scan the QR code below to visit the park's Facebook page and see more photos and current park happenings.

More good news: the park's page reached 1,000 fans in late September.

www.facebook.com/TRAWolfCreekPark

Finding the best balance for all: nutrient criteria examined

In 1998, then-President Bill Clinton issued an executive order requiring the Environmental Protection Agency to develop numeric nutrient criteria for water bodies. When present in elevated concentrations, nutrients, primarily nitrogen and phosphorus, can cause excessive algal growth – a condition called eutrophication that can affect all aspects of aquatic health. The goal in setting nutrient standards is to determine what concentrations of nutrients are appropriate for specific water bodies in order to avoid eutrophic conditions.

The Texas Commission on Environmental Quality is now working with the EPA to develop these standards for nitrogen and phosphorus in Texas water bodies, including the Trinity River. The Trinity River Authority is working with fellow members of the Upper Trinity Basin Water Quality Compact to develop a nutrient model for the river's main stem. The Compact comprises TRA, the North Texas Municipal Water District and the cities of Dallas and Fort Worth. Development of this model will allow the group to study various scenarios in order to research the appropriate balance of nutrients in the river.

"There has to be, and always is, some nitrogen and phosphorus present in the water to maintain the natural ecology of the river," said Glenn Clingenpeel, senior manager of TRA's planning and environmental management division. "But under some circumstances, too much of a good thing can have negative impacts. So our goal is to find an appropriate nutrient standard that is both protective of the ecology of the river and financially sound for our customer cities."

The main-stem nutrient model will provide a unique opportunity to test different hydrologic conditions and to analyze the effect of such conditions on concentrations of nitrogen and phosphorus in the river. Programmers will input the characteristics of the Trinity River and different nutrient loading scenarios into a computer model to provide data on potential effects of various nutrient levels.

These data will allow TRA, along with other Compact members, the TCEQ and the EPA, to develop appropriate and balanced nutrient standards.

"I see it as TRA's role to ask questions – 'Is this a good, meaningful regulation?' and if not, 'How can we make it better?'" said Clingenpeel. "How can we balance the need to have a healthy environment with the need to spend our limited resources wisely?"

TRA hopes to use the main-stem nutrient model to provide substantial, scientific information to the TCEQ that will help it set meaningful standards that protect both the environment and the customers who ultimately bear the cost. The project will run through 2015.

Trinity River Authority of Texas
P.O. Box 60
Arlington, Texas 76004
(817) 467-4343

CHANGE SERVICE REQUESTED

PRSRT STD
U.S. POSTAGE PAID
FORT WORTH, TX
PERMIT # 1359

inTRA is published by the Trinity River Authority's public information division for the Authority's valued employees, directors, consultants and other interested individuals. To request or submit information for publication, contact editor Debbie Bronson, public information assistant, at 817-467-4343 or bronsond@trinityra.org.

Bardwell Lake viewed through a screen of bluebonnets in the Meadowview Nature Area. Charles Burns, information systems analyst, and his stepdaughter, Makaylia Chappell, recently won accolades in the State Fair of Texas' Creative Arts Photography Competition. Burns earned second place in the life-rural/city scenes/action category and an honorable mention in architectural features/building/monuments category. Makaylia received honorable mention for the photo above in the junior scenery/landscapes/waterscape category. She earned an additional honorable mention in the junior life-rural/city scenes/action category.