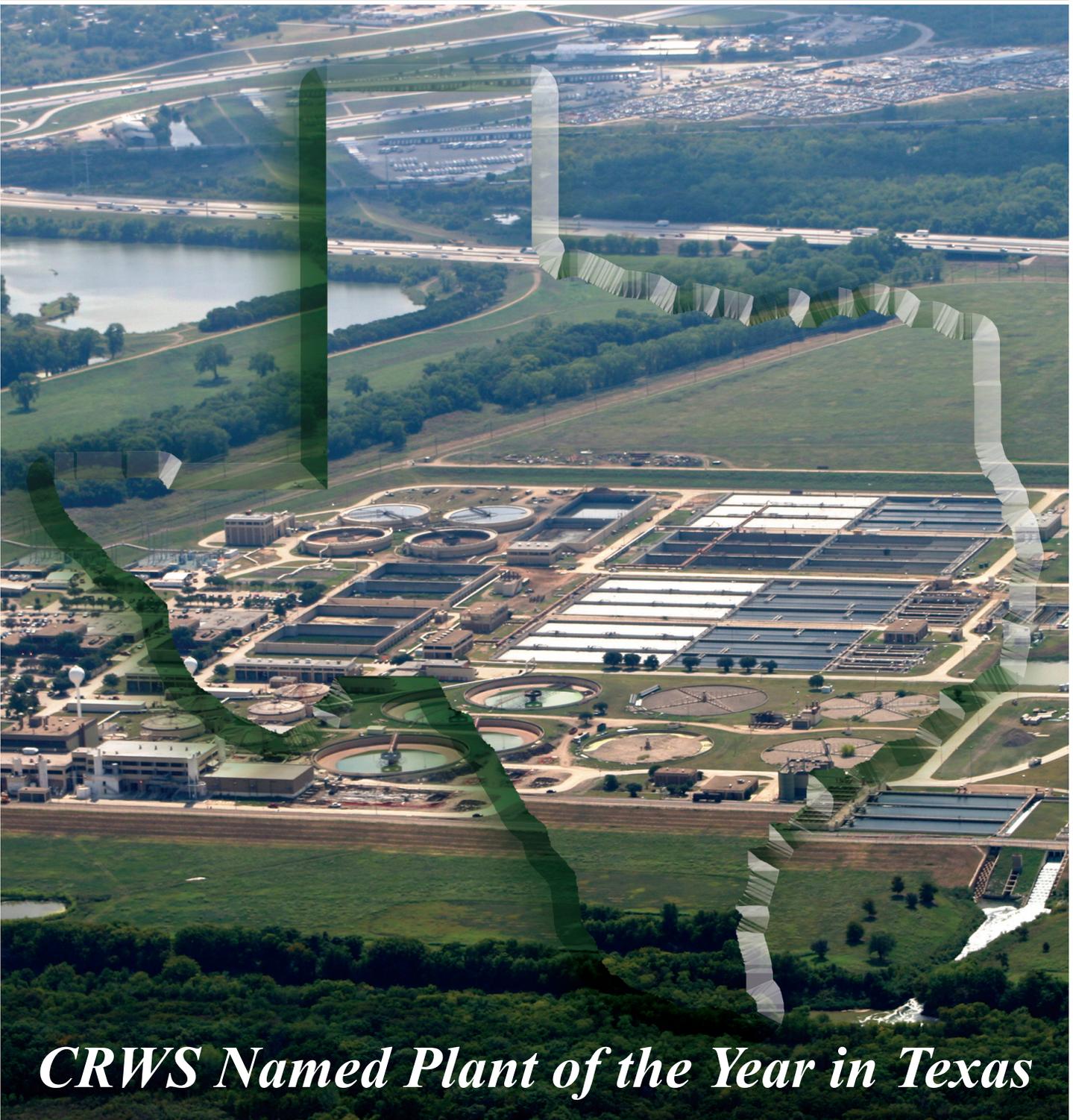


February/March 2010



Newsletter of the Trinity River Authority of Texas



CRWS Named Plant of the Year in Texas

Danny Vance Receives TWCA Award

The Texas Water Conservation Association dedicated the 2010 Annual TWCA Convention, held in Dallas, Texas on March 3-5, to Danny F. Vance, General Manager of the Trinity River Authority.

Each year, the Association dedicates its convention to an individual who has made outstanding contributions and service to the membership. It is the highest award given at the convention.

The Texas Water Conservation Association is the leading organization in Texas devoted to conserving, developing, protecting, and using the water resources of the state. Membership in the organization includes municipalities, river authorities, navigation and flood control districts and utility districts, among others.

Mr. Vance is past president of TWCA. He has served as Chair of

many TWCA committees, including the By-Laws Committee, where substantial changes and revisions were made, which the Association currently operates under. He has also served as Chair of the Water Reuse Committee, the Water Resources Development and the Management Committee.

Mr. Vance became General Manager of the Trinity River Authority in 1979, the second General Manager in the history of TRA and was the youngest individual to ever serve as a General Manager of a major Texas river authority.

“Mr. Vance’s legacy will be of service to the Texas water resources of this state, and particularly, the Trinity River basin through his leadership roles in numerous professional organizations and water planning groups,” said Jeff Taylor, President TWCA.



Danny F. Vance, TRA General Manager addresses the TWCA Convention as his wife, Janet Vance, looks on. The TWCA dedicated the convention to Mr. Vance which is the highest award given at the convention.

CRWS Named Plant of the Year

The Trinity River Authority’s Central Regional Wastewater System was named Plant of the Year in the large plant category by the Water Environment Association of Texas. TRA was notified of the award in January and CRWS management and staff will accept the honor at Texas Water 2010 in April.

Each year, the Water Environment Association of Texas presents the Plant of the Year award to a municipal wastewater treatment plant in Texas that has consistently exhibited outstanding performance of daily activities beyond the normal call of duty.

No plant is more deserving of this award than CRWS. TRA pioneered the concept of regional wastewater treatment by establishing the Central Regional Wastewater System in 1957. The plant began operations in December 1959, serving the cities of Irving, Grand Prairie, Farmers Branch, and a portion of western Dallas in Texas. The system has since expanded to serve all or part of 21 contracting parties and approximately 1.2 million people in the Dallas/Fort Worth geographical area.

CRWS includes a treatment plant, located in Grand Prairie, and more than 200 miles of collection system pipelines. This regional treatment facility is one of the largest and best-operated plants in the state of Texas. The system’s staff works with continuously

upgraded state-of-the-art technology throughout the water reclamation process to produce clean, clear effluent that improves water quality in the Trinity River.

CRWS is capable of providing complete treatment for monthly average flows of 162 million gallons per day, daily maximum flows of 335 MGD, and a daily 2-hour peak flow maximum of 405 MGD. Construction is underway which will result in an uprating of the plant’s permitted capacity to 189 MGD.

During the treatment process, biological oxygen demand, suspended solids and ammonia nitrogen are reduced by 99 percent. The Central plant has the mechanical dewatering capability of processing 232 dry tons of biosolids daily.

CRWS has a total of 46 operators, certified by the Texas Commission on Environmental Quality, including 13 with “A” certifications, the highest level of certification offered by the state.

CRWS has a sterling record of permit compliance, which is best illustrated by the Peak Performance Awards the system has earned from the National Association of Clean Water Agencies (NACWA). CRWS has achieved 100% permit compliance continuously since 1994 resulting in numerous Gold and Platinum Awards from the National Association of Clean Water Agencies.

During this 16-year time period, CRWS has discharged over 800 billion gallons of highly treated effluent into the Trinity River with no violations of its state or federal permit. CRWS is one of only 14 systems nationwide to achieve 100% compliance for 16 or more years.

Safety is a way of life at CRWS. In an effort to promote awareness, impact behavior and promote compliance with safe practices, safety awareness and education permeates every aspect of daily work life at CRWS. A multifaceted Safety Education Program, beginning with day one of employment at CRWS and continuing for the duration of an employee’s tenure, strives to ensure the safest possible work environment. CRWS maintains an excellent safety record with only 1.5 lost-time incidents per 100 employees in the year 2008.



Central Regional Wastewater System was named Plant of the Year by the Water Environment Association. The Plant of the Year award goes to a municipal wastewater treatment plant in Texas that has consistently exhibited outstanding performance of daily activities beyond the normal call of duty. See story this page.

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Three Major CRWS Construction Contracts Awarded at February 2010 Board Meeting

The TRA Board of Directors authorized three major construction contracts at a regular meeting of the 25-member governing body on February 24, 2010 that will improve treatment capability at the Central Regional Wastewater System Treatment Plant.

The rehabilitation of Pump Stations 13/13A was authorized for a bid price of \$16,656,000. The Texas Commission on Environmental Quality requires planning for treatment plant expansion when flows reach 75 percent of capacity and construction when flows reach 90 percent of capacity.

The annual average flow at CRWS is approximately 140 million gallons per day which is 86 percent of the treatment plant's rated capacity of 162 MGD. In order to comply with the state's regulatory requirements, maintain the CRWS plant's operational efficiency and work toward measures to increase plant capacity to 189 MGD, it is necessary to make pumping improvements to Pump Stations 13/13A.

The design contract for this work was authorized in late 2008. The design called for:

- Rehabilitation of Pump Station 13 (50 MGD capacity) including associated piping.
- Rehabilitation of Pump Station 13A (100 MGD capacity).
- New electrical buildings for both pump stations.
- Replacement of each station's eddy current clutches with variable frequency drives.
- Construction of waste-activated sludge and scum pipelines.
- Other related miscellaneous improvements.

The Phase I Aeration Basin Improvements Project is a significant step in upgrading the aeration system of the activated sludge CRWS plant. Activated sludge, and air injected into the treatment process to sustain the activated sludge, is at the center

of the plant's biological treatment process. The bid to make substantial improvements to the aeration system and equipment was in the amount of \$15,446,000.

The first design contract to improve these important components was awarded in June 2008 and amended in August 2009. The project includes:

- Replacement of fine bubble membrane diffusers which physically deliver air to the treatment process in Aeration Basins No.2 and No. 4 through No.12.
- Replacement of existing PVC pipe air diffuser laterals, where necessary.
- Replacement of supply air piping, valves and supports.
- Rehabilitation of two blowers in Blower Building No. 1.
- HVAC modifications to Blower Buildings No.1 and No.3.
- New electrical/controls/motor control center in Blower Buildings No.1 and No.3.
- New vortex grit basin in effluent baffles at Headwork A.
- New bridge crane in Blower Building No.1.
- Construction of the Filter Electrical Building.

Pump Stations 6 and 6A, located at the very front of the treatment process, lift wastewater as it comes into the treatment plant from the collection system. Major improvements have already been addressed on these two pump stations in two previous phases, one of which is complete and another that is still underway. Phase IV-C Pump Station Improvements are being constructed on a bid in the amount of \$4,379,000.

Phase IV-C work includes:

- Installation of pre-purchased fine screens which extend 90-feet below the surface at Pump Station 6. The purpose of these screens is to remove debris from the raw wastewater which facilitates the treatment process and reduces



Pre-purchased fine screens which extend 90-feet below the surface will be installed at Pump Station 6. The purpose of these screens is to remove debris from the raw wastewater which facilitates the treatment process and reduces unnecessary wear and tear on treatment plants pumps.

unnecessary wear and tear on treatment plants pumps. This project will also include installation of new shaftless screw conveyors and screening washer/compactor, removal and replacement of existing waste containers and rails with new stationary compactor, compacting container and associated rails.

- Construction of a new 6-inch diameter and smaller site service water main and strainers to serve proposed fine screens and screenings washer/compactor.

- Modifications of existing

Supervisory Control and Data Acquisition system. Installation of a new Programmable Logic Controller, programming of the plant's PLC and main plant Human Machine Interface for equipment installed on this project.

Several portions of the existing plant, specifically Phases I and II, are nearing 30 years of age. Funding for all of these construction activities is available in the Central Regional Wastewater System's construction fund.

Raudel Juarez Named Operator of the Year

Raudel Juarez, Senior Operator at CRWS, was named Outstanding Operator of the Year by the Water Environment Association of Texas. TRA was notified of the award in January and Juarez will accept the award at Texas Water 2010 in April.

WEAT presents the Outstanding Operator of the Year to a wastewater treatment plant operator in the State of Texas who has demonstrated outstanding professionalism at his/her facility and has performed his/her duties tirelessly and with dedication to the betterment of the water environment.

Juarez began his career in wastewater in 2000 as an introductory employee at the Ventura Regional Sanitation District in Ventura,

California. In 2002, he obtained his Class II Wastewater License and was promoted to Operator II in 2003. He worked at two different sequential batch reactor plants, with advanced activated sludge, performing nitrification and denitrification until 2005.

On December 12, 2005, Juarez joined the Trinity River Authority's Central Regional Wastewater System as an Operator II. He quickly obtained his Class B Wastewater License and was promoted to Senior Operator. In this position he was responsible for training on his shift as well as Hazmat training and day-to-day activities of the operators. As Senior Operator, Juarez is responsible for plant operations in the absence of the Chief Operator.

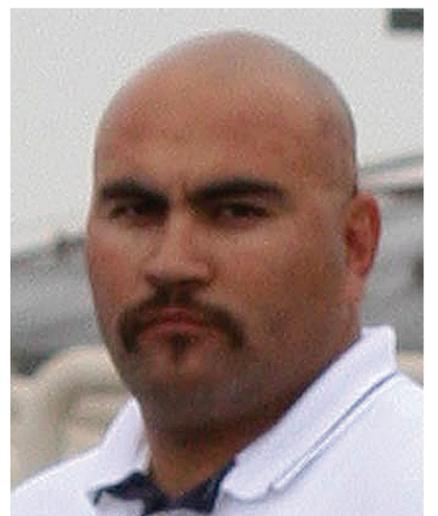
Juarez was selected to oversee

construction projects that will enable the plant's capacity to be uprated from 162 million gallons per day to 189 MGD. In this capacity, he works with engineers and contractors to plan and coordinate construction. He has played an integral part in reviewing designs and attending numerous meetings during each construction phase.

In 2006, he joined the CREWSers, TRA's Operations Challenge team, and became team coach. As coach, he was the backbone of the team. Under his leadership, the CREWSers won National Championships in the Operations Challenge in 2006, 2008, and 2009. He also competed in several demonstrations and invitation competitions.

Mr. Juarez's commitment to TRA's

goals and objectives are evident in his daily work contribution.



*Raudel Juarez,
CRWS Senior Operator*

CRWS Mountain Creek Interceptor Undergoes Massive Cleaning Effort

A 2500-foot portion of the Mountain Creek Interceptor that transports raw wastewater to the Trinity River Authority's Central Regional Wastewater System plant underwent a massive cleaning effort to clear the 72-inch pipe of sand, gravel, rags and other non-organic materials that had built up in the 32-year old pipe.

Gritty materials such as sand and gravel can build up and compact in the bottom of a wastewater pipe, especially after decades of service. The Mountain Creek Interceptor had an additional build-up of lighter materials, mostly rags, at the joints where sections of pipe are joined together. Circular rubber gaskets, commonly used to seal pipes at joints, had deteriorated and sagged into the flow of wastewater. Rags, and other floating materials were caught on the sagging gaskets building up thousands of pounds of materials at the top of the pipes.

"The pipe's capacity was diminished by the build-ups at both the top and bottom in the pipe," said Bill Tatum, CRWS Project Manager.

Concerned that the pipe's decreased capacity would lead to outflows during wet weather, CRWS looked for a cost-effective method to clean the pipe.

"With all the debris in the pipe, it was running nearly full which complicated plans for fixing the situation," said Tatum.

CRWS chose a new, large diameter pipe cleaning method that uses high-powered jets of water to loosen long-term build up. The process is similar to using a hose with a nozzle to clean off a

sidewalk. However, in this case, a 2000-pounds-per-square-inch, 350-gallons-per-minute-nozzle system blasts the compacted materials loose and then forces the debris downstream to a manhole for collection. The process effectively removes hard packed materials without damaging aging pipes.

At the manhole, a 2500-GPM pump pushes the slurry of debris and water to a dewatering container where the solids are captured. Nearly 100% of the water is returned to the wastewater pipe which greatly reduces the amount of

slurry which must be hauled away.

"One of the advantages of this method was that we didn't have to bypass the line and empty it of water before cleaning," said Tatum.

A contractor with specialized equipment carried out the cleaning project. CRWS reduced the costs of the project by assisting the contractor with the cleaning operation and disposing of material removed from the pipe in the CRWS plant's on-site landfill.

The cleaning project removed thousands of pounds of rags and 30 yards of grit, sand and gravel.

Some of the sagging gaskets were removed to prevent further build up of floatable materials at the top of the pipe. In the near future, additional deteriorated gaskets will be removed via robotics.

"When the project started, the pipe was running nearly full," said Tatum. "When we finished, the pipe was running about 50% full," he added.

The restored capacity will make room for increased flows during wet-weather and decrease the possibility of outflows.



A contractor with specialized equipment for cleaning large-diameter pipes sets up the high powered jet and dewatering container at a manhole on the Mountain Creek Interceptor. Twenty-five hundred feet of the line were cleaned of rags and grit.

Record Largemouth Bass Caught in Lake Livingston

On February 21, 2010, Robert Laird, Sr., of Livingston set the hook on a 13.19-pound largemouth bass while fishing beside the U.S. 190 Bridge across Lake Livingston. The new lake-record fish bested the previous Lake Livingston record of 12.45 pounds caught February 16, 1987.

Laird's fish is the first big bass from Lake Livingston entered into Texas Parks and Wildlife ShareLunker program. Laird's catch helped him win the Polk County Bass Club tournament.

Lake Livingston is not known as a big bass lake, and some of Laird's friends doubted him when he said he had a fish over ten pounds.

"They didn't want to believe me on Lake Livingston," he said. "When I pulled her out of the bag, all their eyes flew open."

Laird was fishing in six to eight feet of water using a Bagley crankbait.

Anyone legally catching a

13-pound or bigger largemouth bass from Texas waters, public or private, between October 1 and April 30 may submit the fish to the Toyota ShareLunker program by calling program manager David Campbell at (903) 681-0550 or paging him at (888) 784-0600 and leaving a phone number including area code. The live fish will be picked up by TPWD personnel within 12 hours.

ShareLunker entries are taken to the Texas Freshwater Fisheries Center (TFFC) in Athens where they are used in a selective breeding program. Some of the offspring from these fish are stocked back into the water body from which they were caught. Other ShareLunker offspring are stocked in public waters around the state in an attempt to increase the overall size and growth rate of largemouth bass in Texas.

At the end of spawning season, the ShareLunker will be returned to the angler for live release, or the angler may donate it permanently



Robert Laird, Sr., caught a record largemouth bass from Lake Livingston on February 21, 2010. The fish weighed 13.19 pounds and was 24.5 inches long and 21 inches in girth. Photo courtesy of Texas Parks and Wildlife.

to the program. Either way, the angler receives a fiberglass replica of the catch, ShareLunker clothing, and recognition at an annual awards banquet held at TFFC. In addition, the Texas resident catching

the largest entry of the season is awarded a lifetime fishing license.

For complete information and rules of the ShareLunker program and tips on caring for big bass, see www.tpwd.state.tx.us/sharelunker.

General Manager's Message

Stimulus Money Came with Repayment Requirements

When the U.S. Army Corps of Engineers announced that money made available by the American Recovery and Reinvestment Act (ARRA) of 2009 would be used to make long delayed capital improvements at Lakes Bardwell, Joe Pool and Navarro Mills, it seemed like a beneficial use for "free federal stimulus money".

In a reversal of fortunes, it was subsequently determined that these funds were not only not free, but that this money might have to be repaid in a manner that would create an enormous financial burden for the non-federal users of water supply storage in the three federal lakes. After researching the situation, it became painfully obvious that not all federal stimulus money was free and that existing law required the non-federal water users to repay ARRA money spent on capital improvements.

TRA's role in this situation is that of a local sponsor for the federal water projects. The Authority was asked by the cities to serve as the local sponsor because the cities as individual

entities would not have had the financial and institutional ability to serve. TRA was able to put together the customer groups that ultimately pay for the local share of costs. As local sponsor, TRA is responsible for repaying the federal costs allocated for feasibility, engineering and environmental studies, and subsequently, construction funding, as well as annual operations and maintenance.

TRA exists without the benefit of any form of tax base or income from state or federal appropriations. The only way TRA can repay the local share of the federal water project's cost is to enter into contracts with users of the projects' water supplies. On an annual basis, the Corps sends TRA a statement which is split into pro rata shares and sent to the end users of the federal water supply. They pay TRA and the money is passed through to the Corps of Engineers.

For the Navarro Mills project, Corsicana is the party responsible for paying for the local share of capital costs, operations and maintenance expenses. In early 2010, this amounted to

\$209,631. The bid price for the major capital improvements that were going to be completed with the stimulus funds and repaid by Corsicana was \$3,384,790.

For the Bardwell project, the 2010 cost for Operations and Maintenance amounted to \$469,970. In 2010, the obligation passed through to Ennis and the Ellis County Water Control and Improvement District # 1 (Waxahachie) could have increased to \$1,777,985, which was the bid price for major capital improvements.

At Joe Pool Lake, Cedar Hill, Duncanville, Grand Prairie and Midlothian have contracted for set percentages of the project's water supply component. In 2010, the amount estimated due from local interests was \$118,214. The capital improvement bid increased this amount to \$365,854.

Clearly, inducing a severe economic hardship was not a goal of the stimulus program or the Corps of Engineers. Unintended consequences do not make them less painful, however, and discussions between the



General Manager Danny Vance

Corps, TRA and the cities involved began almost immediately. This process was complicated by the Corps, extended chain of command and the fact that some portions of the ARRA stimulus package required repayment and others did not.

In the search of a solution, two major paths forward were identified. One was pursuit of a political solution whereby the U.S. Congress would pass a law forgiving the requirement to repay the stimulus money. The second was the development of an amortization schedule that would allow TRA's cash-strapped customers to repay this debt over an extended period of time.

By the end of March 2010, it appeared that the amortization approach would be possible. A memo from an Assistant Secretary of the Army authorized a one-time exception to policy that would afford non-federal users of water supply storage space in Corps' lakes the opportunity to amortize capital improvements costs which are funded by ARRA funds up to a period of 30-years, with interest.

The original capital costs for the construction of Navarro Mills have been paid in full by Corsicana over a 50-year period. The original capital costs for Bardwell are scheduled to be paid in full in 2017. It is unfortunate that the cities involved in these lakes may be in a repayment mode for longer than they expected.

One thing everyone agrees on is that the work being done by the Corps with stimulus funding is necessary and important. The Corps of Engineers has also bent over backwards in trying to resolve this funding issue.

All options are still on the table, however, and whether the debt is excused or amortized is yet to be determined.



The Cities of Cedar Hill, Duncanville, Grand Prairie and Midlothian share in the water supply portion of costs at Joe Pool Lake. In 2010, the amount estimated due the cities was \$118,214. Repayment for ARRA stimulus money increased this amount to \$365,854.

Employee Milestones

New Hires

CRWS welcomes **Travis Smith** and **Steven Breito** as Operator I. **Arlen Sauer** joined CRWS as Maintenance Mechanic I. CRWS welcomes **Roderick Pennon** as a Buyer.

Promotions

Arthur Brownlow was promoted to Process Control Systems Coordinator at CRWS. **Richard Kornegay** was promoted to Senior Buyer at CRWS.

Current Events

TCRWSS Senior Operator, **Steve Lee**, and wife Barbara, celebrated

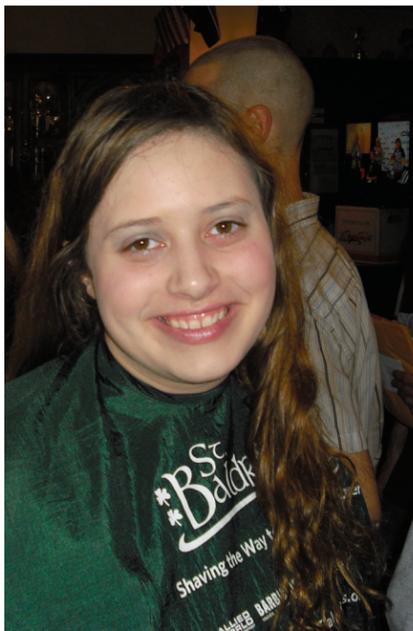
their 30th wedding anniversary on March 15, 2010. Congratulations Steve and Barbara.

Makayla Lee, granddaughter of **Steve Lee** Senior Operator at TCRWSS, has made second grade A/B honor roll for the two six-week-periods in a row.

Will Holder, son of **Bill Holder**, LLP Project Manager, will be inducted into the Fine Arts & Communication Council of Scholars at Texas State University in San Marcos on Friday, April 16, 2010. Membership in the Council of Scholars is limited to students who make the Dean's List in three consecutive semesters. Will is a senior majoring in photography and graphic design.



Congratulations to **John Hooks**, 16-year old Junior from Corrigan-Camden High School. John is 10th in the nation for RBI's (runs batted in) and 11th in the nation for homeruns, according to Max Preps. John has 9 Homeruns, 3 of which are Grand Slams. He also has 45 RBI's and only 3 strikeouts in 21 games. John has a batting average of .516. John's proud parents are Johnny Hooks, Maintenance Mechanic II at LLP, and his wife, Karen.



Megan Moore, 14-year-old granddaughter of **Thomas Sanders**, Construction Services Manager, participated as a shaver at an event on March 27, 2010 to benefit the **St. Baldrick's Foundation**. At the time of the event Megan had raised \$1,055.00 in donations to help fund childhood cancer research grants. Megan participated in memory of a friend who passed away in May 2009 with cancer, and in honor of another who is currently in remission from lymphoma. Megan is a freshman at Colleyville Heritage High School.



DAQ Query, Cleburne High sophomore, crafted a meat smoker in the front end of an antique pickup on a trailer. DAQ entered the smoker into the 2010 agricultural mechanics competition of the Johnson County Junior Livestock Show and Youth Fair. DAQ's proud father is **Mike Query**, Construction Inspection Supervisor.



Amber Porter (seen here in pink), daughter of **Brenda Porter**, Land Records Research Specialist, completed her Girl Scout Gold Award. Amber, working with four other girl scouts, built a 75-foot by 4-foot trail to access Shelter 14 at the Mineral Wells State Park campground. The girls made three signs to mark the trail. They also spent two days cleaning trash along shoreline of the lake.

The average person in the United States uses anywhere from 80-100 gallons of water per day. Flushing the toilet actually takes up the largest amount of this water.



Cara Brewer, granddaughter of **Warren Brewer**, Northern Region Manager, will graduate Summa Cum Laude after just three years at **Howard Payne University** with a bachelor of arts degree in Political Science and English. Cara will begin Texas Tech Law School next fall on full scholarship. Cara participated in moot court competition, a simulated courtroom setting where participants argue cases as they would before the supreme court where she was the second highest individual speaker in the Southwestern Region. In addition, Cara has been nominated for Who's Who among college students, and nominated for Ms. Howard Payne University.



Connie Jones, Executive Secretary for Executive Services welcomed a new grandson on February 26, 2010. **Charlie Hayden Jones** was born weighing 6 pounds, 2 ounces. Charlie's parents are **Paul and Bethany Jones** of Colorado Springs, Colorado.



Troy Shelton, Construction Inspector II, and his wife, **Lindsay**, celebrated their 10th wedding anniversary on April 1, 2010. Congratulations Troy and Lindsay.



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Anniversaries

30 Years

William E. Holder, Manager, LLP
Bill R. Smith, Manager of Development, NR

20 Years

Claud A. Lesly, Jr., Senior Maintenance Mechanic, ROCRWS

10 Years

Colonel L. Baker, Senior Electronic Technician, CRWS
Kristie L. Munoz, Biologist, LLP
Roland Popham, Jr., Maintenance Mechanic II, LLP
Mark A. Vallo, Operator II, TMCRWS

5 Years

George Garcia, Maintenance Mechanic I, CRWS
Jacob N. Young, Field Inspector, LLP

3 Years

Randy S. Wilks, Maintenance Mechanic II, CRWS
Linda M. Vice, Senior Secretary, CSS
Bonnie Crawford, Accounting Clerk, TCWSP
Calvin E. Waller, Chief Electronic Technician, TCWSP
Steven L. Daniels, Senior Chemist, CRWS
Gordon M. Drouin, Maintenance Mechanic I, CRWS
David A. Tomlinson, CSS Construction Inspector II
Oswaldo J. Robles, CSS Construction Inspector II