DCRWS System Expansion
TCRWSS Receives Fluoridation Award

The Trinity River Authority’s Trinity County Regional Water Supply Project received the Water Fluoridation Quality Award from the United States Centers for Disease Control and Prevention. The CDC gave this award to those communities in Texas that maintained a consistent level of optimally fluoridated water throughout 2008.

TCRWSS submits monthly fluoridation reports to the Texas Fluoridation Project.

Potable water fluoridation is recognized by CDC as one of ten great public health achievements of the twentieth century. Fluoridated drinking water is one of the most effective public health measures to prevent tooth decay. CDC recommends water fluoridation as a safe, effective, and inexpensive method of preventing decay; every $1 invested in fluoridation saves approximately $38 in costs for dental treatment. In addition, studies have shown that tooth decay is prevented among all age groups, not just children.

In 2001, the U.S. Task Force on Community Preventative Services recommended that communities either adopt or maintain fluoridation of public drinking water supplies, and the past five U.S. Surgeons General have recommended drinking water fluoridation as a safe, healthy, and effective public health intervention. More than 184 million people, or 69.2 percent of the United States population and 78 percent of the Texas population served by public water supplies, currently drink water with optimal fluoride levels for preventing decay.

TCRWSS provides drinking water to the cities of Trinity and Groveton, the Westwood Shores MUD and the Glendale, Riverside and Trinity Rural Water Supply Corporations.

Zebra Mussels Reach Trinity River Basin

Zebra mussels, an exotic invasive freshwater shellfish, have been found in West Prong Sister Grove Creek, a tributary to Lake Lavon in southern Grayson County. The tiny mussels are thought to have reached Sister Grove Creek by way of a pipe used by the North Texas Municipal Water District to transport water from Lake Texoma. NTMWD is no longer transferring water from Lake Texoma.

Zebra mussels have established a population in Lake Texoma in spite of Texas Parks and Wildlife’s best efforts to keep them from gaining a foothold in the reservoir. While adult mussels have been found clinging to rocks in West Prong Sister Grove Creek, repeated sampling has found neither adults nor their larvae, called veligers, in Lake Lavon.

Zebra mussels are notorious for damaging both the natural and man made environment. They are efficient filter feeders, removing the phytoplankton from the water that all immature fish depend on for nutrition. They reproduce and grow quickly.

Zebra mussels have been found clinging to rocks in West Prong Sister Grove Creek, a tributary to Lake Lavon in the Trinity River basin. So far, neither the mussels nor their larvae have been found in Lake Lavon.

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Construction Begins on New Wastewater Transportation Project for DCRWS

At the August meeting, the Trinity River Authority Board of Directors awarded a contract to Gracon Construction, Inc. to construct a portion of a major new wastewater transportation system for the Authority’s Denton Creek Regional Wastewater System. The Denton Creek Wastewater Transportation Project will bring wastewater from the towns of Argyle, Flower Mound and Northlake to the DCRWS plant in Roanoke.

The new wastewater transportation project is divided into four segments: A, B, C and D. Segment A includes a lift station and two force mains. Segments B, C and D include three gravity wastewater interceptors.

Gracon Construction Inc. cast the winning bid of $3,862,860.00 to construct the lift station in Segment A. The lift station will include a 57-foot deep wet well and six submersible wastewater pumps capable of conveying 18,653 million gallons per day at firm capacity. Firm capacity is defined, in this case, as five pumps running with an additional pump on stand-by.

The Segment A lift station will be the first component of the wastewater transportation project to be constructed because it has the longest construction time. Contracts to construct the two force mains in Segment A will be awarded in October 2009.

Ruiz was chosen for this mission because of his experience in wastewater treatment and his previous experience as an Army Ranger. He will head a security team that will provide protection for the Agribusiness Development Team.

The Team will stay at a Forward Operating Base in the Ghazni Province of eastern Afghanistan.

The Agribusiness Development Teams are tasked with bringing farming and ranching practices up to U.S. 1950s standards.

The Agribusiness Development Team will spend 30 days in Indiana working on language skills, customs and additional physical conditioning before transport to Afghanistan.

Eli Ruiz, Maintenance Mechanic II at Ten Mile Creek Regional Wastewater System, is headed to Afghanistan for a year. Ruiz is part of an Army Agribusiness Development Team that will assist Afghan farmers and ranchers in the Ghazni Province of Afghanistan.

TMCRWS Maintenance Mechanic Deploys to Afghanistan on Humanitarian Mission

The Agribusiness Development Team will provide training, technical assistance, equipment and small facilities and establish vet clinics to treat livestock.

Ruiz adhered to a physical training regiment in the months leading up to his deployment, strengthening his lungs and legs in preparation for the elevation and difficult terrain. The Agribusiness Development Team will spend 30 days in Indiana working on language skills, customs and additional physical conditioning before transport to Afghanistan.

Construction is underway on the first portion of the Denton Creek Wastewater Transportation Project, which will bring wastewater from the towns of Argyle, Flower Mound and Northlake to the DCRWS plant in Roanoke.
TRAP Prepares for Flu Season

The flu season got off to an early start this year and according to the Centers for Disease Control and Prevention, almost all of the early cases are the Novel H1N1 flu virus (sometimes called swine flu). The CDC reports that few people below the age of 65 years have immunity to the Novel H1N1 flu virus and therefore more people will be infected. Some experts believe that as many as 30-50% of the U.S. population may become ill with this new virus.

While a greater percentage of the population may become infected, the symptoms caused by the Novel H1N1 flu virus tend to be about the same in terms of severity as the seasonal flu virus. Like the seasonal flu, most people who become ill with the Novel H1N1 flu virus recover without requiring medical treatment.

Earlier this year, the Trinity River Authority carried out a vulnerability assessment at each of the Authority’s projects. “Because TRA provides and maintains critical infrastructure with our water treatment and water reclamation projects, we need to be prepared to continue operations while facing a variety of threats including security threats, weather-related disasters or epidemics,” said Glenn Clingenpeel, Executive Assistant to the General Manager.

The vulnerability assessment focused on absenteeism and the availability of critical supplies, such as chemicals needed to carry out treatment processes.

“In terms of absenteeism, the CDC recommends that organizations plan for a six to eight week ‘wave’ of increased absenteeism of up to 40%. TRA’s projects are confident that they could cope with a similar scenario,” Clingenpeel said, but cautioned that this could not be sustained indefinitely and would require adopting operating procedures that would not be ideal under normal conditions with a corresponding decrease in services.

Obviously, employees are key to TRA’s mission, but procuring sufficient supplies is also critical to sustaining treatment processes. What if manufacturing and distribution systems are impacted by absenteeism brought on by an epidemic?

“Our assessment examined storage capacity and supplier redundancy, both of which would be important in temporarily maintaining adequate supplies critical to operations,” said Clingenpeel.

Even though TRA is prepared to deal with temporary shortage of employees and a disruption in normal supply lines, preventing infection is the best strategy for getting through the flu season smoothly.

“The most effective way to stay healthy is to get the flu vaccinations,” said Clingenpeel.

“The seasonal flu vaccination is currently available through many venues including pharmacies, community outreach and of course, your physician,” he added.

The Novel H1N1 flu vaccination is also becoming available at physician’s offices. Doctors are following guidelines put forth by the CDC for which members of the population will receive the vaccination first. The Novel H1N1 flu virus, like the seasonal flu is spread when people with the flu cough or sneeze. Sometimes people may become infected by touching a surface or object with flu viruses on it, and then touching their mouth or nose. The CDC recommends commonsense guidelines for avoiding infection and spread of flu viruses.

... the symptoms caused by the Novel H1N1 flu virus tend to be about the same in terms of severity as the seasonal flu virus.

- Cover your nose and mouth with a tissue when you cough or sneeze. Throw the tissue in the trash after you use it.
- Wash your hands often with soap and water. If soap and water are not available, use an alcohol-based hand rub.
- Avoid touching your eyes, nose or mouth.
- Try to avoid close contact with sick people.
- Keep away from others as much as possible to keep from making others sick.
- Follow public health advice regarding school closures, avoiding crowds and other social distancing measures.

Be prepared in case you get sick. Pick up a supply of over-the-counter medicines, alcohol-based hand cleanser and tissues. If you do get sick with the Novel H1N1 flu virus, you can expect symptoms similar to other flu viruses: fever, cough, sore throat, runny or stuffy nose, body aches, headache, chills and fatigue.

Some people also report diarrhea and vomiting.

While most people recover from Novel H1N1 flu without medical treatment, seek emergency medical care if you experience any of the following warning signs:

- Difficulty breathing or shortness of breath
- Pain or pressure in the chest or abdomen
- Sudden dizziness
- Confusion
- Severe or persistent vomiting
- Flu-like symptoms improve but then return with fever and worse cough.

Note: The CDC has prepared a separate list of warning signs for children. Visit the web site for more information: http://www.cdc.gov/.

Flu vaccinations:

The bottom of Lake Lavon is muddy and zebra mussels prefer to attach to hard, solid surfaces. Also, some experts believe that blue catfish like to eat zebra mussels. Lake Lavon has been stocked with blue catfish since 1989 and the fish are doing well in the lake.

The Texas Parks and Wildlife Department urges boaters to prevent transfer of zebra mussels from lake to lake with the following practices:

- Drain water from boats when leaving a lake.
- Scrape off any zebra mussels.
- Wash boats and trailers with high pressure, 140-degree water.
- Let boats dry and wait a week before re-entering the water.

Zebra mussels. Continued from page 1.

spread quickly, attaching themselves to any hard surface such as docks, pipes, boats and even other animals, such as crawfish. They clog intake valves for water treatment plants by accumulating inside the pipes, slowing, and sometimes even stopping, the flow of water. From there, they invade the water treatment facility adhering to the inside of tanks and pipes. Zebra mussels were first found in the Great Lakes in 1980 and have spread unchecked to the southern United States. The shellfish have no natural predators or environmental controls in the U.S.

Given that repeated sampling has failed to find zebra mussel adults or larvae in Lake Lavon, the Texas Parks and Wildlife Department hopes the conditions in the lake will discourage infestation.

Zebra mussels are small in size but large in number. They reproduce quickly and have spread from north to south in the U.S.

Historically, doctor visits for flu-like illness increase slightly in late December followed by a dramatic increase in early February continuing through late March. See green and blue lines on chart. In contrast, as shown by the red line above, 2009 doctor visits for flu-like illness increased dramatically in the first week of September, 17 weeks in advance of previous years.
Aquatic vegetation control efforts have been on-going at Lake Livingston since the mid-1970’s. Plant species including water hyacinth, water lettuce, hydrilla and other noxious plants have been historically treated with applications of approved herbicides by state licensed TRA personnel. This year, TRA staff estimates 7,000 to 8,000 acres of Lake Livingston’s 83,000 surface acres are covered with undesirable aquatic weeds. Left untreated, these weeds can grow very thick and quickly impede boat traffic and property access. The severe negative impacts on recreational use are the source of numerous complaints from lakeside property owners.

TRA’s aquatic vegetation control program has been supported by grant funds from the Texas Parks and Wildlife Department. In July 2008, the Authority was awarded $40,000 under TPWD Aquatic Management Vegetation Contract No. 193300. The funding, which originated as part of a federal program, is provided for the sole purpose of assisting entities such as TRA in controlling aquatic vegetation on inland waterways. TRA’s spray season at Lake Livingston runs from April 15 to October 15.

In early summer 2009, TRA was notified that an additional grant in the amount of $190,000 could be provided to TRA for continued vegetation control work. TRA expedited our response to this offer to ensure TPWD of our need and willingness to utilize the additional funding and guarantee the availability of the funds. The term of the Authority’s contract with TPWD was extended to August 31, 2010. An airboat is used to treat the dense vegetative mats since a standard motor boat would be of very limited use. TRA’s first airboat was a 1981 model that was retrofitted to accommodate spray equipment. This boat was not designed for the extreme and continuous use that the noxious aquatic weeds of Lake Livingston demand of a spray vessel. Funds for the purchase of a more powerful airboat, essentially an aquatic tractor, with more appropriate spray and navigation equipment were included in the 2009 Lake Livingston budget. The low bidder was American Airboat Corporation in the amount of $59,492.20. The new airboat is to be used as the primary spray vehicle, and the 1981 airboat will provide additional support in less extreme locations as a backup or secondary vessel for the remainder of its useful life.

A great deal of the work TRA’s spray crews perform is the clearing of weeds blocking off entire coves, boat ramps and docks. Based on the sheer volume of surface area covered by weeds, it is doubtful that TRA will ever eliminate all noxious weeds in Lake Livingston. The only thing TRA can do is keep track of all the requests that are made for spraying assistance and organize our work efforts as efficiently as possible.

The new airboat can readily climb over obstacles like logs and trash. The vessel also came equipped with a GPS navigation unit that allows the spray crew to return to the exact same location after taking a break to refuel or top off their spray tanks. This allows for better coverage and more complete destruction of the targeted weeds on the first application. This is particularly useful when attacking some of the massive, solid mats that exist in what the Authority considers nursery areas located in the headwaters of Lake Livingston. These are shallow, backwater areas that are off the beaten track for most recreational boaters. These areas include thousands of acres that become solidly covered with weeds. While they don’t necessarily restrict recreational activities, they do act as the source for introducing, or reintroducing additional weeds in areas of the Lake that TRA has already cleared. Flood waters flowing into Lake Livingston flush these areas and can spread the weeds over the entire lake’s surface.

TRA has observed that the best thing that can happen in the context of eliminating weeds is an extremely cold winter. Cold conditions eliminate aquatic weeds very efficiently regardless of their location on the lake, but counting on extended cold weather for a solution is questionable policy. Other factors that impact weed growth include the relative turbidity of Lake water and the frequency of flood events. Beyond spraying aquatic glyphosate, which is the equivalent of Round Up mixed with a surfactant to get the chemical to adhere to the plant, TRA is also working with some biological control measures to include water hyacinth weevils and lettuce weevils. TPWD provided the hyacinth weevils and TRA obtained the lettuce weevils. While not yet as successful as the spray program, the weevils have reproduced and spread in Lake Livingston and appear to be slowing the spread of weeds.

TRA’s Lake Livingston spray program is a very popular public relations program that often results in enthusiastic support from the shore line public. Extensive water quality testing throughout Texas has not documented any short or long term problems with properly applied spray programs. Because aquatic weeds can render shoreline property unusable, spraying will continue for the foreseeable future at Lake Livingston.

TRA Projects Impacted by Increased Permit Fees

As of September 1, 2009, the Texas Commission on Environmental Quality (TCEQ) has increased annual fees assessed to wastewater discharge permit holders and water users in the state of Texas. Four of the Trinity River Authority’s five regional wastewater systems in the northern region of Trinity River basin were assessed substantially increased fees. Two smaller systems in the southern region were also assessed higher fees by the TCEQ.

Water Code, Section 26.0291 authorizes the TCEQ to impose annual consolidated water quality fees for wastewater discharge permit holders and water user fees for those who hold water rights. TCEQ uses funds generated by these two fees to inspect waste treatment facilities and enforce state laws.
New Hires
Kenny Nguyen joined GO as Information Technology Support Specialist. GO welcomes Webster Mangham as Planning and Environmental Management Assistant. Vidal Guerra joined CRWS as Maintenance Mechanic II. CRWS welcomes Brian Hoover as Maintenance Mechanic II. Justin Rouse joined CRWS as Operator I. CRWS welcomes Sean Krystal as Operator I. Kelly Cochran joined CRWS as Senior Secretary. CRWS welcomes Clifford Nance as Operator I.

Marcus McAdams joined CRWS as Maintenance Mechanic II. TMCRWS welcomes Thomas Baker as Operator I.

Promotions
Brandon Morton was promoted to Operator II at DCRWS.

Robert L. Ray was promoted to Senior Maintenance Mechanic at DCRWS.

Jesse Edward “LJ” Acosta was born on Tuesday, September 08, 2009 at 8 pounds, 12 ounces and 20.5 inches long. His parents are Jesse and Dessy Acosta. Grandparents are Johnny Hooks, Maintenance Mechanic II at LLP and his wife, Karen.

Julie Wilson, Executive Secretary, General Services (formerly Julie O’Banion) and Destry Lance Wilson were married on August 7, 2009.

Fujiang Wen, husband of Hong Wu, Ph.D., Planning and Environmental Management Assistant, earned his Ph.D. in Natural Resource Sciences from University of Nebraska-Lincoln in August 2009. He is a Conservation Analyst with the City of Dallas Water Utilities. Doctors Wen and Wu, and their two children, moved to DFW last year.

Garcia Recalled to Active Duty
George Garcia, CRWS Maintenance Mechanic I, has been re-called to active duty with the U.S. Marine Corps. Garcia is assigned to Marine Attack Fighter Squadron VMFA-112, which is home based at Fort Worth. His duties include repairs and documentation of repairs to the F/A 18 Super Hornet Fighters of his Squadron. Garcia is deploying to an undisclosed conflict location in the Middle East. This is his second tour of duty in a combat zone. Garcia was deployed overseas in support of active duty troops in Iraq in 2004. He spent seven months traveling between Japan, Australia and Guam. Garcia will be on active duty for approximately one year.

Fees. Continued from page 4.

previous maximum annual fee of $75,000 each. Central Regional Wastewater System is the Authority’s largest wastewater system with a rated capacity of 162 million gallons per day. CRWS’ permit fee increased to the new maximum of $100,000. Ten Mile Creek Regional Wastewater System has a rated capacity of 24 MGD and will also pay the new maximum fee.

Two of TRA’s smaller wastewater systems are facing larger fees as well, although part of the increase is due to plant expansions currently under way at Red Oak Creek Regional Wastewater System and Denton Creek Regional Wastewater System. Permit fees for Mountain Creek Regional Wastewater System will remain the same.

The Huntsville Regional Water Supply System, which pays an annual water quality fee for sludge disposal, will pay 64% more this year. Wolf Creek Park cleans a small amount of wastewater generated by the park’s users. The Park will also pay 64% more.

The Texas Commission on Environmental Quality is increasing some of the agency’s fees to offset a decrease in appropriations from the state of Texas. General revenue appropriations to the TCEQ have declined from the $51 million received in the 2004–2005 biennium to $9.4 million for the 2010-11 biennium.
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, TRA Public Information Assistant (817) 467-4343 bronsond@trinityra.org.

Anniversaries

35 Years
Mike Knight, Water Quality Supervisor, LLP

25 Years
Mark McFarland, Operator II, HRWSS

15 Years
Emma Sheard, Office Coordinator, TCWSP

10 Years
Pat Bennett, Senior Accounting Clerk, GO
Angela Kilpatrick, Clean Rivers Program Coordinator, GO
Michelle Orbeck, Senior Secretary, CRWS
Miguel Chavez, Operator I, CRWS

5 Years
Ann Carver, Internal Auditor, GO
Jason Lawson, Senior Biologist, CRWS
Jennifer Moore, Pretreatment Coordinator, CRWS
Jimmy Hines, Maintenance Mechanic II, CRWS
Robert Mendoza, Maintenance Mechanic II, CRWS
Jennifer Whitaker, Laboratory Supervisor, CRWS
Louis Morrow, Operator II, CRWS
Sam Thomas, Office Clerk, GO