



## Texas Water Development Board Discusses Plans At GCTA Luncheon

by Traci Read, Senior Editor

Nearly 90 attendees and their guests gathered to hear Mark D. Hall, P.E., director of the Project Engineering and Review Division, in Project Finance and Construction Assistance (PFCA) at the Texas Water Development Board (TWDB), Houston, TX, speak at the Aug. 13 Gulf Coast Trenchless Association meeting held at the Houston Engineering and Scientific Society Building.

The TWDB provides financing, through a variety of funding programs, to communities across Texas for the planning, design and construction of water and wastewater infrastructure projects. Hall is responsible for the engineering and environmental aspects of these projects.

Hall is a civil engineer and graduate from Texas A&M University. He has been with the TWDB in a variety of roles in the agency's funding programs since 1987.

Hall specifically addressed the audience on TWDB funding programs which is the state's water planning and water project financing agency. The TWDB's main responsibilities are threefold: collecting and disseminating water-related data; assisting with regional water planning, and preparing the State Water Plan for the development of the state's water resources; and administering cost-effective financial programs for the

construction of water supply, wastewater treatment, flood control, and agricultural water conservation projects.

The water development board is made up of 16 planning groups, based on a "bottom-up" consensus-driven approach. Once each group adopts their regional water plan, the plan is sent to the TWDB for approval, who then compile information from the approved regional water plan and other sources to develop the state water plan. "We have to be conversant with each group and their needs to make informed decisions," comments Hall.

"Most noteworthy among the programs the TWDB offers are the Clean Water State Revolving Fund and the Drinking Water State Revolving Fund," says Hall.

Loans can be used for the planning, design and construction of projects to upgrade or replace water supply infrastructure, to correct exceedances of the federal Safe Drinking Water Act (SDWA) standards, to consolidate water supplies and to purchase capacity in water systems. Drinking Water State Revolving Fund (DWSRF) loan proceeds can also be used to purchase land integral to the project.

In the case of the Clean Water State Revolving Fund (CWSRF), loans can be used for the planning, design and construction of wastewater treatment facilities, wastewater recycling and reuse facilities, collection systems, stormwa-

ter pollution control, nonpoint source pollution control and estuary management projects.

Hall explains: "The TWDB is responsible for the engineering and environmental aspects of the funding package from cradle to grave; from initial conception to the final touches of construction. Once a project is approved by the board, funding is released and we can in turn give it to the contractor."

There is an application and approval process for prospective loan applicants. For DWSRF and CWSRF applicants, an Intended Use Plan must be submitted for the project. "This information is used to rate each proposed project and places them in a priority order. The Texas Commission of Environmental Quality (TEEQ) prioritizes potential DWSRF loan applicants' projects using information contained in their files," explains Hall. "Otherwise, we fund all other projects based in the order of priority."

The state also provides other financial assistance for other programs. "Financial assistance for the planning, design and construction of State Water Plan (SP) projects may be obtained from the Water Infrastructure Fund (WIF), the State participation Fund, and the Economically Distressed Areas Program (EDAP)," says Hall

### FOR MORE INFORMATION:

*Texas Water Development Board, (512) 463-0991, www.twdb.state.tx.us.*

### Landowners challenge water pipeline

Landowners along the route of a Kentucky American Water pipeline under construction in Franklin County went to court to question the company's right to acquire an easement through condemnation.

Tom FitzGerald, an attorney for the landowners, said his search of Kentucky laws did not turn up one that gives the utility the right of eminent domain for this project.

He filed a "petition for declaration of rights" in Franklin Circuit Court that asks a judge to rule on the question.

Kentucky American Water has long asserted that it has the right to condemn property, but seldom uses it.

In more than 2,000 cases over the last 19 years, Kentucky American has had to ask a court to condemn property only five times. The company has agreements from about half the land-

owners along the 30-mile route, and had hoped to get the others voluntarily.

The petition lists several laws that give water utilities condemnation powers. But one applies to rights-of-way along roads, another to "any city utility," another to non-profit water associations and a fourth to "any person constructing, maintaining or operating waterworks or pipelines for the supply of water to a municipality."

The petition describes Kentucky American as "a private, for-profit water company selling to multiple water districts and communities at wholesale, in addition to retail customers within and outside of Fayette County." That description, FitzGerald argues, fits none of the laws that authorize eminent domain.

Kentucky American received approval from the Public Service Commission in April to build a \$162 million treatment plant and pipeline. The plant is being constructed on the Kentucky River north of Frankfort. Portions of the pipeline also are being laid.

The project already is being challenged in

Franklin Circuit Court by a group called Citizens for Alternative Water Supply, which FitzGerald also represents.

### Fort Worth, Dallas study cost of sharing water pipeline

Water officials in Fort Worth and Dallas are studying sharing the cost of building a more than \$1 billion pipeline to transfer water from three East Texas reservoirs to their customers.

The Tarrant Regional Water District and the city of Dallas are looking at several options to share the cost of the pipeline connecting the Cedar Creek and Richland-Chambers reservoirs and Lake Palestine to the area by 2015.

A preliminary study indicates that sharing the cost of building the more than 100-mile-long pipeline could save the agencies up to \$500 million over the project's lifetime.

The water district, which serves an 11-county area in North Texas, currently has two parallel pipelines that follow the same path when bring-

ing water from its Richland-Chambers and Cedar Creek reservoirs. Along the way are pump stations that push the water uphill to Fort Worth and the surrounding region. The district provides water to about 1.6 million people and expects to serve 2.6 million by 2050.

Dallas is not connected to but signed a contract in 1972 with the Upper Neches River Municipal Water Authority to take 102 million gallons a day from Lake Palestine, which is between Athens and Tyler, said Denis Qualls, senior engineer for the Dallas water department. Dallas will need the additional supply by 2015, he said.

The preferred option would stretch about 139 miles, cost about \$1.1 billion, and use some of the water district's existing pipeline right-of-way.

Another alternative, which follows a 148-mile-long path that is farther south, would cost about \$1.35 billion. While the water district would have to buy more of the right-of-way, the pipeline would run through a mostly rural area.

The pipes would range from 72 inches in diameter

to 126 inches and will cost more than \$2 billion to operate the pipeline over its lifetime.

Building a shared pipeline would also give both water suppliers a backup system in the event of an interruption in service from equipment failure or a problem at one of its water sources.

Officials hope to complete a study and make a final recommendation by the end of the year.

### Sewage flows into Eno basin

An estimated 7,200 gallons of untreated wastewater ended up in the Eno River basin after a sewer main break at the Gold Park construction site in Hillsborough, NC.

According to the town's utilities department, the break occurred on Sept. 5 - a day before Tropical Storm Hanna blew through the area - and discharged 12,546 gallons of untreated sewage from the Dimmocks Mill Road gravity outfall. Most of the sewage was caught before it entered the river.

The line had reportedly been hit by the contractor for the park project, but the contractor did not report the break because he thought the line was a

pipe no longer in use. Heavy rains from Hanna temporarily flooded the construction site, hiding the break and possibly contributing to the contractor's delay in reporting it.

The water coming from the pipe was initially clear and low in volume, but the contractor later noticed a smell and darkening of the water and notified the town. After excavating the site again, the contractor discovered that the pipe was actually an in-service sewer main. The sewage was immediately pumped into a nearby sanitary sewer manhole.

The confusion came about because the pipe was older and made from reinforced concrete, which is now used in storm drains.

The town reported the sewer spill to the N.C. Division of Water Quality. Any fine that may be assessed will be passed on to the contractor, the utilities department said.

Gold Park is the town's first major park project. The 24-acre park will be the midpoint on the 1.5-mile Riverwalk, which will connect downtown Hillsborough to Occaneechee Mountain State Natural Area. The entrance will be located on Dimmocks Mill Road near the railroad trestle. ■

## Large Diameter Pipe Demand To Reach 203 Million Feet In 2012

Large diameter pipe demand in the United States is forecast to increase 2.7 percent yearly to 203 million feet in 2012, valued at \$10 billion. Growth stimulants include a rebounding construction sector and needs to expand and upgrade an aging pipe infrastructure. These and other trends are presented in Large Diameter Pipe, a new study from The Freedonia Group Inc., a Cleveland-based industry research firm.

Concrete will account for 54 percent of all linear pipe footage as a result of its structural integrity, durability, and high compression and pressure resistance. Demand for large diameter concrete pipe is projected to advance two percent annually to more than 109 million feet, paced by drainage and irrigation applications.

Best growth is anticipated for plastic

pipe in light of resin and machinery improvements, as well as good joint integrity, excellent corrosion resistance and flow rates, and lower installation costs. Plastic pipe advances will be stimulated by resin advances (e.g., bimodal polyethylene and molecularly oriented PVC), which will extend the pressure resistance and other properties of large diameter plastic pipe. Best opportunities are expected for large diameter polyvinyl chloride (PVC) pipe.

Demand for large diameter steel pipe is projected to increase 1.8 percent per annum due to steel's high strength, rigidity and pressure tolerance, especially in exploratory, distribution and transmission applications for the natural gas and petroleum industries. Cast iron pipe will remain the preferred choice in applications where high

water pressure capabilities are required. Clay pipe demand will slowly diminish based on competition from higher performing and lower cost plastic pipe.

Storm sewers will remain the leading large diameter pipe market, although better growth is anticipated in natural gas and drainage/irrigation applications. Natural gas markets will be stimulated by high energy costs, increased exploration and drilling activity and the excellent performance of HDPE pipe in gas distribution uses. Good growth for drainage and irrigation pipe will result from rebounding construction activity and widespread drainage applications. Sanitary sewer growth will be based on needs to address problems with combined sewer overflows and the maintenance of clean water standards.

### U.S. Large Diameter Pipe Demand (million feet)

Item	% Annual Growth				
	2002	2007	2012	2002-2007	2007-2012
Large Diameter Pipe Demand	163.3	178.1	203.4	1.7	2.7
Concrete	92.7	99.1	109.3	1.4	2.0
Plastic	31.9	37.8	49.6	3.4	5.6
Cast Iron	13.7	14.3	15.2	0.9	1.3
Steel	24.0	26.1	28.5	1.7	1.8
Clay	1.0	0.8	0.8	-4.3	-0.3

The Freedonia Group

Large Diameter Pipe (published 9/2008, 219 pages) is available for \$4,600 from The Freedonia Group Inc. For further details, contact Corinne Gangloff by phone 440.684.9600; fax 440.646.0484; e-mail [pr@freedoniagroup.com](mailto:pr@freedoniagroup.com); [www.freedoniagroup.com](http://www.freedoniagroup.com).