

Water pipeline under Folsom Dam rejected

The *Sacramento Business Journal* reports that flood control agencies have rejected a request by the cities of Folsom and Roseville and the San Juan Water District in California to build a municipal water pipeline under the future Folsom Dam spillway.

In an August letter to the state Reclamation Board, the cities and the water district pledged to cover the \$20.8 million cost if the agencies managing the upcoming Folsom Dam modifications would include a water supply intake and pump station.

On Oct. 2, the flood control managers met to discuss the idea and concluded that adding a water supply conduit under or adjacent to the planned spillway structure would result in "unacceptable delays and cost increases," according to a recently released Sacramento Area Flood Control Agency report.

Federal, state and local agencies started planning the Folsom spillway project two years ago. When completed, it will allow dam managers to release water more evenly, before major storm flows threaten the dam's integrity.

Construction contractors were scheduled to begin excavation for the project in November, and the spillway is set for completion in 2015.

Buer said the cities and water district representatives first approached him with the request in April, one month before the spillway received federal authorization and three months before state approval.

In the letter to the Reclamation Board, Folsom and Roseville mayors Andy Morin and Jim Gray and San Juan Water District board president Pamela Tobin called the water intake "a project of vital importance" for backup water supply.

TransCanada plans \$5.2B Keystone expansion

Based on strong industry support, TransCanada has entered into contracts or conditionally awarded approximately \$3 billion for major materials and pipeline construction contractors and is continuing to secure land access agreements in preparation for the start of construction in the spring of 2008 on its Keystone Pipeline Project. Based on the increased size and scope of the project and the executed material and service

construction contracts, the capital cost of Keystone is expected to be approximately \$5.2 billion.

TransCanada filed an application with the National Energy Board (NEB) in November for additional pumping facilities required to expand Keystone from a nominal capacity of approximately 435,000 bpd to 590,000 bpd.

Once completed, the 2,148-mile Keystone Pipeline will transport crude from Hardisty, Alberta to U.S. Midwest markets at Wood River and Patoka, IL, and to Cushing, OK. The Canadian portion of the project involves the conversion of approximately 537 miles of existing Canadian mainline pipeline facilities from natural gas to crude oil transmission service and construction of approximately 232 miles of pipeline, pump stations and terminal facilities at Hardisty, Alberta. The U.S. portion of the project includes construction of approximately 1,379 miles of pipeline and pump stations. It is expected that on start-up in late 2009 Keystone will be capable of delivering 435,000 bpd to Wood River and Patoka, IL. It will be expanded to 590,000 bpd and extended to Cushing, OK in late 2010.

Keystone has received NEB approval for two major regulatory applications this year to construct and operate the Canadian portion of the project. Applications for U.S. regulatory approvals at federal and state levels are proceeding.

Report highlights clean water crisis

Nearly 35 years after the passage of the Clean Water Act, the majority of states are facing clean water infrastructure needs far greater than available funding, according to a report released by Food & Water Watch. Federal support for water pipes and treatment plants has declined from a high of approximately \$2 billion in 1991 to slightly more than \$1 billion in 2007 – a 66 percent decrease when adjusted for inflation.

"Each year we fall more than \$20 billion short of what is needed to maintain our public water and sewer systems," said Food & Water Watch Executive Director Wenonah Hauter. "As recent tragedies have shown, U.S. infrastructure has seen decades of neglect. Our water systems, invisible under our homes and businesses, are facing a similar problem – one that may lead to a public health crisis."

"The Clean Water Act has served us well for 35 years. But without needed funding, communities around the country are straining

(continued on page 10)

Fort Worth Water Director Addresses GCTA

Frank Crumb, P.E., director of the city of Fort Worth Water Department, was the guest speaker at the bi-monthly meeting sponsored by the Gulf Coast Trenchless Association (GCTA) held on Oct. 10, in Houston. The city of Fort Worth Water Department provides water and wastewater service to over 900,000 and 600,000 people, respectively, in Fort Worth and surrounding communities in Tarrant County.



Prior to assuming his current position, Crumb served as assistant director of business and planning services and as engineering manager.

During his tenure, Crumb has been responsible for overseeing capital projects planning for water and wastewater expansions during the course of the last 20 years, including construction of the Eagle Mountain Water Treatment Plant in 1992 and its 40 million gallon per day (mgd) expansion in 2000; Village Creek Wastewater Treatment Plant expansion from 96 mgd to 166 mgd; oversight of the \$230 million Wet Weather Program to upgrade the collection system; Rolling Hills capacity expansion from 80 mgd to 200 mgd and numerous other capital improvement projects.

Crumb's involvement led to the development and implementation of Impact Fees in the city of Fort Worth in 1989. He was also instrumental in implementing cost of service based retail rates in the early 90s, and establishing a Citizens Advisory Committee for annual updates.

Among the topics Crumb discussed were the EPA request for Wet Weather Overflows in the collection system that the city negotiated in 1989 that resulted in an eight-year program; and the current SSO Initiative with the Texas Commission on Environmental Quality (TCEQ). The Texas Commission on Environmental Quality is responsible for implementing the Texas Pollutant Discharge Elimination System (TPDES). The TPDES program issues permits to facilities that discharge effluent to surface waters of the State of Texas.

Also of interest to attendees was how Fort Worth is handling its aging collection failures.

"This year, the city's aging collection failures have led to emergency repairs of large diameter pipes, specifically those of 32 inch to 46 inch in diameter that were installed in the 1960s, and then again in the 1980s," explains Crumb. "We've also experienced several sinkholes since the heavy flooding conditions of the past few years, which have required work to stabilize them."

"More than 400,000 feet of pipe has been rehabilitated using trenchless technology in Fort Worth," adds Crumb. "It's been a great tool for us to use. The primary types of trenchless used by the city are sliplining, pipebursting, and cured-in-place (CIPP) technology."

For more information regarding the upcoming the GCTA's MVP Awards Luncheon at UCT Atlanta in January or general information regarding the GCTA, visit the group's website at www.gctaonline.org, or contact Ginger Coleman, GCTA administrator, (713) 839-0808, e-mail ginger@amchouston.com.

(continued from page 7)

to restore and protect our shared water resources. We need a new solution to ensure that we are able to live up to the promise of clean water for future generations. It's time for a water trust fund," said Congressman Earl Blumenauer (D-OR).

The report, "Clear Waters: Why America Needs a Clean Water Trust Fund," is an analysis of state clean water needs and available funding through the primary federal program for clean water, the Clean Water State Revolving Fund, or SRF. Tied to the congressional appropriations process, the federal government contribution to total clean water spending has shrunk from 78 percent in 1978 to just 3 percent today, forcing states to make tough choices among critical water projects.

Food & Water Watch's report points out that small, rural communities are the most burdened by under funding. Millions of rural Americans still live without adequate water and sewer service, though they often pay much more for these services than their urban and suburban counterparts.

"It's time for Congress to recommit to funding clean water for all Americans," explained Aaron Fishbach, Director of Applied Research & Policy Development, Rural Community Assistance Partnerships (RCAP).

"Sewage spills result in an astounding 860 billion gallons of untreated water, filth, chemicals and bacteria into our rivers and other water bodies, and we spend much more to clean up spills than we would to prevent them," said American Rivers Policy Director for Budget and Appropriations Peter Raabe. "It's high time for a dedicated funding source to help communities prevent pollution from contaminating our rivers."

The report can be found at www.foodandwaterwatch.org/water/clearwaters.

ConocoPhillips proposes advance of Alaska Gas Pipeline

ConocoPhillips has submitted a proposal to the governor of Alaska to advance the development of the Alaska Gas Pipeline Project. The proposed pipeline would transport approximately 4 billion cubic feet per day of natural gas from the Alaska North Slope to markets in Canada and the United States.

If built, the Alaskan Natural Gas Pipeline could be one of the largest construction projects in U.S. history. A 48-in pipe would run 1,700 miles from Prudhoe Bay, Alaska

Phoenix Seeks Trenchless Proposals For Solving Unique Project Challenges

The city of Phoenix Water Services Department is planning to install nearly three miles of 36-inch diameter gravity sewer along Broadway Road. Located on the south side of the Phoenix metro area, the Broadway project has several unique aspects. Along with the design consultant, Project Engineering Consultants Ltd. (PEC), the city is seeking options for the best way to complete the project.

PEC has prepared design plans for the new sewer with construction expected to begin in late 2008. Pulice Construction of Phoenix, AZ, has been selected as the construction manager at risk and is putting together a bidder's list. Pulice is seeking contractors that are interested in installing the proposed sewer using trenchless methods.

The project site (along Broadway from 35th Avenue to 10th Avenue) is located in a highly congested industrial area. Broadway Road is a main arterial street and many small industrial businesses are dependent on the road as their major transportation corridor. Additionally, Broadway Road's right-of-way already includes many existing underground utilities including natural gas lines, water transmission lines, storm drains, irrigation lines, communications, power lines and gravity sewers.

A geotechnical investigation revealed that a large area of the project site is comprised of alluvium fan. The alluvium layer is a combination of sand, gravel and cobbles. Boulders, which have a diameter greater than 10 inches, were also found. The report advised that installation of the sewer by open-cut methods would require excavation side slopes no steeper than a 1:1.

Considering all existing conditions and challenges, the city is interested in installation of the sewer by trenchless methods in lieu of open-cut construction. The sewer will be approximately 18-feet in depth for the length of the project. At that depth and with the existing ground conditions, an open-cut excavation is anticipated to be at least 40-feet wide at the top of trench. Installing the sewer by the open-cut method would require the purchase of additional right-of-way, extensive utility relocations, temporary support of existing underground utilities and the replacement of the existing roadway. Temporary construction easements would also be required. Multiple lanes of Broadway Road would be restricted during construction and full road closures would also be required. The existing businesses along the corridor would be considerably impacted.

"The fully developed roadway, numerous businesses and unstable soil conditions present a variety of construction challenges," PEC's Steve Mortensen advised the city. "The challenges have prompted the city and PEC to investigate a few trenchless technologies including pipebursting, pilot tube boring, microtunneling and open-faced pipe jacking. So far, the investigation has not yielded a method that is cost competitive to conventional construction."

To mitigate the impact for area businesses and further investigate possible trenchless options, Phoenix city officials agreed to invite interested contractors to contact PEC or Pulice Construction with possible solutions.

"In recent years, the number of trenchless contractors successfully using trenchless methods has increased throughout the industry," Mortensen observed. "We believe there may be contractors who are willing and capable of constructing portions of this project for a reasonable cost using trenchless methods."

Interested contractors should contact: Kevin Carter, Pulice Construction, (602) 944-2241; or Tom Braatlien, Project Engineering Consultants, (602) 906-1901.

to Alberta, Canada pipeline hub, where it would link up with lines leading to Chicago area hubs. Estimated cost of the project is \$20 to 40 billion.

During the initial phase of the project, Bechtel oil, Gas and Chemicals Inc. will provide engineering and technical support and other related project services.

Other bids were received from China Petroleum & Chemical Corp., also known as Sinopec, TransCanada Corp., Anergia LLC, the Alaska Natural Gasline Development Authority and the Alaska Gasline Port Authority.

The project has been discussed since 1977, when crude oil began flowing on the Trans-Alaska Pipeline. Oil and natural gas reservoirs are typically found together, but without a gas pipeline the North Slope producers have had to pump

most of the gas back into the ground. Geologists predict there could be as much as 200 trillion cubic feet of undiscovered gas in the Alaska.

In Memoriam

Bill Adams, retired senior vice president of Gregory & Cook Inc., passed away on Oct. 4, at the age of 81. He began his career in 1950 as a construction superintendent for Station Contracting and from 1958-1977, he was a general superintendent for offshore and marine work for Houston Contracting Co. From 1977-1997, Adams worked as vice president for Gregory & Cook & Halcro International S.A., managing projects in Saudi Arabia, Thailand and the U.S., including the All American Pipeline. Adams' was a member of the Pipeliners Hall of Fame.

Adams is survived by five children: Lucretia, Bill Jr., Regina, Gus and William. Donations can be made to Adams' memory to Pipeliners' Reunion XVIII, PO Box 525, Cleveland, OK 74020 or Pipe Line Contractor's Association Scholarship Fund, 1700 Pacific Ave., Ste. 4100, Dallas, TX 75201.

Richard Emerson, died Oct. 27, after a long battle with lung cancer. He formally worked for Associated Pipe Line Contractors, Gregory & Cook Construction, and Houston Contracting, and most recently for CH2M Hill. During his career, Emerson worked on the Alaska Gas Pipeline Project, the Sakhalin Interim Gas Pipeline Project, the Van-kor Pipeline Peer Review and the Mackenzie Gas Project. The family has requested there be no funeral service. ■