

Rural California City Leverages ARRA Funds To Build Better Treatment Plant



Live Oak, Calif.

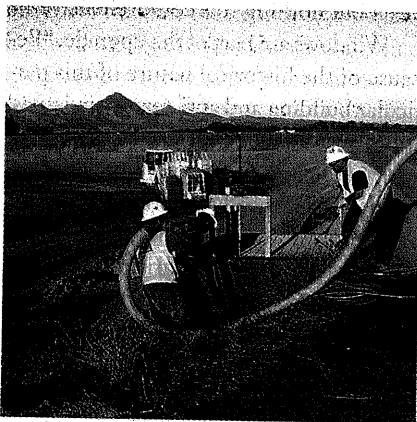
AN INFUSION OF \$16 MILLION from the American Recovery and Reinvestment Act will enable the rural California city of Live Oak's wastewater treatment plant to avoid tens of thousands of dollars in fines and meet state wastewater quality standards by 2011.

A 2007 California Water Resources Control Board order mandated upgrading the 1.4-million-gallon-per-day plant to meet standards for disinfection and metals, including aluminum and copper. "We were facing fines of \$3,000 a day because our system didn't meet new standards," says City Manager Jim Goodwin.

To meet new guidelines, ECO:LOGIC, a Rocklin, Calif.-based engineering consulting firm, designed a \$20-million project that included a new odor control system and secondary-feed pump station.

"It's almost like building a completely new facility," says Mike Harrison, project engineer for ECO:LOGIC.

The city is reusing the old headworks and passive treatment ponds but constructing a new secondary and tertiary system. It will include a single-channel



SITE PREP begins under a construction contract that came in \$1 million below earlier bids.

ultraviolet disinfection system, a plant water-pump station, a gravity-powered cascading aerator structure, solids storage with surface aeration and sludge feed pumps. It is designed to be expanded to 5.4 mgd in modules.

The upgrade will use less energy than similarly sized plants by decoupling mixing and aeration. "Brush aerators mix too much, using more energy than necessary," says Harrison. The plan includes the addition of up to 1 MW of solar power in a future phase.

The project went to bid in 2007. However, the \$18.6-million price tag would have doubled utility bills in the struggling community. The city shifted its efforts from state grants to federal funding when the stimulus program was announced.

Live Oak acquired a \$10-million ARRA grant and \$6-million loan at 1% interest. The city held a second bid in

SNAPSHOT

Live Oak Wastewater Treatment Plant

JOBS CREATED

Total: **25+**

ARRA AWARD

\$16 million

2008. This time 11 firms, including winning contractor RGW Construction Inc., Livermore, Calif., submitted bids. Two were close to RGW's \$17.6-million bid.

The project broke ground in September and could be complete in 2011. Steve Halam, RGW operations manager, says he will probably hire 25 people to move the 60,000 yards of material and install underground pipe to prepare the site for the new structure. ■

By *J. T. Long*