TOTAL ENVIRONMENTAL RESTORATION CONTRACTS

A SUCCESS STORY

Fort Ord

Fort Ord is a 46-square-mile former Army installation that served as a training and staging facility for Army infantry troops from 1917 to 1993, when it was closed. It had been placed on the National Priority List in 1990. Activities at the installation resulted in the leaching of a complex mixture of volatile organic compounds (chlorinated hydrocarbons) into the groundwater beneath six adjacent landfill areas.

Congress mandated that a groundwater treatment system be "in place and effective" 15 months after the Record of Decision (ROD) was signed. Once the ROD was signed on 23 August 1994, the primary objective was to design, install, and operate a groundwater collection, treatment, and reinjection system no later than 23 November 1995. To meet this tight schedule, USACE decided to use a TERC, selecting a contractor in March 1995.

TERC WORKS

Groundwater treatment facility.

Nearly 5,000 feet of drilling was completed during the installation of 32 extraction, injection, and monitoring wells in just 85 calendar days. Since 6 of the 11 chemicals of concern (COCs) in the contaminated groundwater were carcinogens, post-emission control was necessary. A review of related studies and case histories indicated that no single technology was best suited, both economically and technically, to remove or treat the elevated concentrations of contaminants.

The Corps/TERC team determined that the most cost-effective system was an enhanced ultraviolet (UV) treatment methodology consisting of two activated carbon beds to remove the nine

Use of innovative technology will save $8 million over 10 years.

adsorbable COCs and four parallel-flow UV-oxidation skids to destroy unabsorbed vinyl chloride and methylene chloride. On 23 October 1995, after only 3 months of construction and 1 month before the congressionally mandated deadline, the first batch of contaminated water was processed. This groundwater treatment system should save a total of $8 million over the next 10 years.

Effective hydraulic plume capture was key to the transfer of Fort Ord land parcels to state and local ownership. Through a series of water elevation maps generated for the unconfined and confined aquifers just six weeks after system startup, effective plume capture was demonstrated. On 6 January 1996, the U. S. Environmental Protection Agency concurred that the system was in place and effective.

TERC saved 20 months over the traditional fixed-price approach.

In just 7 months after contract award, the TERC contractor planned, designed, constructed, and placed into successful operation the complex groundwater collection and treatment system. This model project had lost no time to accidents, and 70 percent of the project was subcontracted to small businesses. The "fast track" TERC process achieved a 20-month savings over the "traditional" fixed-price approach.

With the groundwater treatment system operating effectively, remediation efforts are now focused on capping the existing landfill area. The TERC contractor has already suggested 23 constructibility improvements and expects to save approximately $15 million by:

- reducing time (especially in mobilizing and demobilizing equipment and personnel),
- capping the landfill with little or no treatment, and
- phasing in the capping work.

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