SMALL FRY, BIG DEAL

CH2M HILL protects fish, dominates market

In California's Central Valley and San Francisco Bay Delta, CH2M HILL reigns supreme in the fish screen market. Fish screens block fry (young fish) from entering openings along river banks that divert water for irrigation, energy and municipal supply.

Screens are required by law for rivers with endangered species, such as winter-run Chinook salmon and delta smelt. Along the Sacramento River and its tributaries, CH2M HILL's work accounts for more than 80 percent of the fish-passage improvements.

On Butte Creek, a tributary of the Sacramento, CH2M HILL opened 25 miles to salmon for the first time since the 1920s. The work was recognized for Engineering Excellence by the Consulting Engineers and Land Surveyors of California.

"We've built a strong reputation beginning in the Clair Hill* days," said Gary Nuss, a senior project manager. "Our regulatory experience, engineers and scientists set us apart." CH2M HILL provides a full scope of services on fish passage improvement projects, including feasibility studies, environmental documents, design, permitting and construction management.

Fry tend to drift with river currents. The velocity of water flowing into screens must not exceed the swimming abilities of the "weakest" fish. (Photo courtesy California Department of Water Resources)

The company completed or has in progress major projects for Reclamation District 108, Tehama-Colusa Canal Authority, Anderson-Cottonwood Irrigation District, the City of Redding, Sutter Mutual Water Company and Glenn-Colusa Irrigation District.

With 1,100 feet of screen structure, diverting a maximum of 3,000 cubic feet per second from the Sacramento, the Hamilton City Pumping Plant screening project for Glenn-Colusa is the longest flat screen project in the world. Key components include a 600-foot extension to the existing fish screen and a stabilizing gradient facility. Estimated construction costs exceed \$50 million.

See related story "Big Screen Debut" published in Civil Engineering magazine, October 2001. Howard Wilson, a senior project manager in Redding, co-authored the article. Visit:

> www.asce.org/ cemagazine/1001/ cem1001_feat _screen.cfm.

Along the Sacramento River this 830 cubic-footper-second screen is 45 feet high and 250 feet long. CH2M HILL completed this project for Reclamation District 108.

* CH2M merged with Clair A. Hill & Associates in 1971.