

February 25, 2003

Goldsborough Creek wins award

By [JOURNAL STAFF](#)

Since its construction in 1921, the Goldsborough Creek Dam near Shelton blocked the passage of migratory fish, but those days are gone, thanks to a \$3.5-million project.

Tetra Tech Inc., a Seattle engineering and technical services company, recently took home the seventh-annual Design Excellence Award from the Seattle Post of the Society of American Military Engineers.



Photo courtesy of Tetra Tech

Built as a log-holding pond and to provide hydroelectric power and water, the 35-foot-tall dam was abandoned in the 1950's but remained on land owned by Simpson Timber Co. Officials considered removing the dam, but were stymied by the complexity and cost.

Five years ago, the U.S. Army Corps of Engineers teamed up with Simpson Timber and the state Department of Fish and Wildlife to remove it.

The Corps of Engineers turned to Tetra Tech, which provided turn-key engineering services. These included advanced hydraulic, geotechnical and design studies; preparation of plans, specifications, cost estimates, design reports, and an electronic bid package; and engineering support during construction of the fast-track project. Stan Palmer Construction of Shelton was the contractor.

The goal was to restore fish passage on 24-river miles above the dam, and restore and stabilize the creek.

"This project was more complex than simply removing the old dam," said Doug Lantz, Tetra Tech's project manager. "In addition to providing fish passage, and preventing adverse impacts to the town (of Shelton), we also had to contend with a railroad trestle crossing just upstream of the dam, and a high-pressure gas pipeline that crossed the creek just downstream of the project area."

The chosen design included 36 individual weirs that were constructed using steel H-piles and precast concrete panels, with cast-in-place concrete weir caps. It also included bank protection to prevent erosion and flanking of the weirs during large floods.

The design also had to provide a stable reach that would not induce flooding, or deposition of sediment, wood or other debris, in the tide-controlled portion of the creek that passed through Shelton, two miles downstream.

More familiar stream restoration features, such as logjams, boulder weirs and riparian plantings would not have provided the required protection on their own, according to Lantz.

Construction was completed in 2001 and the project has been operating successfully. Residents have observed juvenile and adult fish within the restored reach, and spawning has been observed in the newly available habitat upstream of the former dam site.

The hydraulic and structural features of the project were tested by a moderate flood soon after construction, and their performance exceeded expectations, according to project participants.

"Certainly, the main objective of the project was to provide fish passage to the prime, forested habitat upstream of the dam," said Patti Case, Simpson spokesperson. "Yet this location has long been a favorite of area residents. Their continued interest will be gratified as they see this project assume a natural look and feel over the passing years."