

Case Study

Permanent Tiedowns



The project was unique because drilling and post-tension anchor installation took place from a flexi-float barge.



Date: September 2001

Job Name: Green River Headworks Project

Owner: City of Tacoma, Department of Public Utilities

Location: Headwaters of the Green River in King County, Washington

General Contractor: Robison Construction, Inc.

Engineer: Golder Associates

The Green River Headworks are located in the Cascade foothills outside of the city of Kanasket, Washington. It is a concrete spillway complex that supplies water to the city of Tacoma. The old headwork facility was in need of a retrofit and in the process the decision was made to raise the dam height approximately 10 feet. The designers and engineers recommended drilling into the current dam to provide support for the new section and to repair the current structure. The drilling involved curtain grouting and installing 30,100 kip anchors through the dam and into the bedrock below.

The general contractor for the project, RCI, subcontracted Northwest Cascade Inc. to handle the drilling, grouting and installation of anchors. The project was unique because all drilling and post-tension anchor installation took place from a flexi-float barge. Holes were drilled on four-foot centers across the length of the 152-foot dam. Anchors were placed using a boom truck on the ends and high wire apparatus for the center bars. Construction took place during peak salmon spawning season so environmental impact was a special concern.



Northwest Cascade Inc.
www.nwcascade.com
800/ 444 - 2371