



PROJECT:

Repair Stilliguamish River Cook Slough Grade Control Weir

Cherokee Construction as a **prime contractor** welcomed this project that had a challenging scope of work involving pile driving, structural concrete, shot-crete surfacing and rip rap placement for scour protection as well as the construction of a new 'natural' fish ladder formed from rip rap and native materials. These challenges were amplified by a couple of things.

A seasonal salmon run, numbering approximately 900,000 adult fish, was happening during the construction phase of the project. These fish had to be diverted around the 2.5 mile long work area. Fish that were already in the work zone prior to exclusion structures being constructed had to be rescued and relocated out of the work zone. There were also endangered species in the river system and our work zone. Because these fish could not be handled or moved, a diversion and treatment system for water had to be designed and operated in a fashion to prevent the downstream water from changing temperature in excess of .5 degrees. Large diversion pumps had to be operated 24 hours a day for 2 months to sustain the required CFS Turbidity and chemical composition of the river had to be monitored on an ongoing basis during in-water work. We worked closely with multiple fish and wildlife agencies including NOAA, USFW, WDFW and the Stilliguamish Tribe.

The highly volatile nature of this river system presented challenges of its own. River elevations could change by as much as 6 feet and the volume of the river could increase as much as ten times in the space of an 8 hour period. Upstream monitoring stations were watched closely to present as much advance notice of a flood event as possible so crews and equipment could be removed from the work area if necessary.

Project Highlights:

- Multi-Agency Coordination/Cooperation
- Construction of New Style Fish Passages Utilizing Riprap Pools Instead of Concrete
- Diversion of Nearly 1 Million Pink Salmon Around Work Site
- Adhered To Environmental & Water Quality Standards

Project Vitals:

- **Client:** US Army Corps of Engineers, Seattle District
- **Location:** Silvana, Washington
- **Contract Amount:** \$1,970,598.00
- **Duration:** April 2011 – October 2011
- **Contract #:** W912DW-10-C-0025
- **Amount Self-Performed:** 82%
- **NAICS Code:** 237990

