Watershed Restoration Sal Creek, Prince of Wales

SE Alaska Restoration

Background

Sal Creek is a small coastal watershed on Prince of Wales Island that has supported heavy timber harvest. Over 15 miles of road were built in the watershed and one third of the timber, including the entire floodplain, was harvested between 1966 & 1971. Effects of this past management include landslides, wide-spread red alder regeneration along streams, establishment of reed canary grass along streams and ponds, erosion and sedimentation from roads in the floodplain, culverts that block fish passage and stream flow, poor deer winter range, and increased beaver activity, which in turn lead to blockage of the main stem, destabilization of the overflow channels, and less complex fish habitat. The watershed supports over 8 miles of perennial streams and historically provided productive habitat for coho, pink and chum salmon, steelhead and cutthroat trout, and dolly varden char.

Excavator working along Sal Creek creating an instream structure

Outcomes

- Reconnected 27 streams blocked by 1.5 miles of abandoned logging road,
- Removed 6 deteriorated log culverts in fish streams,
- Restored fish passage to 1 mile of tributary stream habitat,
- Thinned 100 acres of red alder in the riparian area to improve conifer regeneration,
- Placed 385 whole trees strategically along 4 miles of mainstem to create large woody debris complexes and rehabilitate stream processes.

Successes Tributaries blocked by road fill and log culverts were reconnected to the mainstem. Habitat complexity was improved, which in turn can support more and bigger fish. Project managers learned a lot about in-stream structure design and equipment capability, as well as how to coordinate government and non-government partners in contract preparation and oversight

Before restoration efforts (above), and after view of site showing armoring of stream bank and creation of scour pool and cover habitat.

Timeline Landscape Analysis completed 2004, Watershed Restoration Plan completed 2005, Phase I implementation 2006, Phase II 2007

Future Work Fish population, channel morphology, fish habitat, riparian vegetation and stream temperature are being monitored annually for the first 3-5 years, then bi-annually or every third year thereafter.

Details Project coordinator: US Forest Service; Funding: USFS Watershed Program Funds, The Nature Conservancy, Trout Unlimited; Business contractors: USFS crews and local individuals.