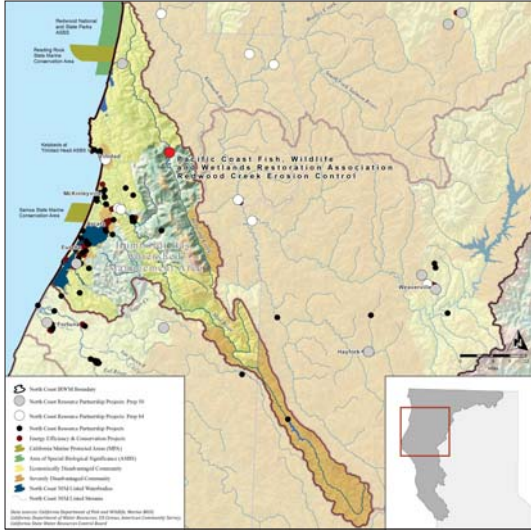


Redwood Creek Erosion Control Project, Lacks Creek and Coyote Creek Subwatersheds

PACIFIC COAST FISH, WILDLIFE AND WETLANDS RESTORATION ASSOCIATION



STATEMENT OF THE PROBLEM

The Redwood Creek watershed in northern California contains important habitat for salmon and steelhead production and sediment input is a known limiting factor for salmonid production.

PROJECT GOALS

Short-term:

- Reduce persistent delivery of fine sediment from road surfaces and cutbanks
- Reduce or eliminate episodic erosion from road failures during large magnitude storms

Long-term:

- Improve and protect beneficial uses of water and riparian habitat in Redwood Creek by reducing the potential for road-related erosion

BENEFITS

Economic

- Prevention of 64,000 yd³ of sediment delivery has an estimated economic value of \$103,680¹

Habitat and Ecosystem Function

- Sediment reduction reduces pool aggradation, increases spawning substrate and water quality, enhancing salmonid habitat

Jobs and Local Economy

- \$537,971 was spent using local labor and supplies when possible, contributing to State goals for environmental justice and social equity

Flood Control

- Reducing erosion lessens channel aggradation and potential for flooding in the Orick community

THE SOLUTION

The project consists of erosion prevention treatments on prioritized road segments in Lacks and Coyote Creek watersheds in Humboldt County, California to significantly reduce sediment delivery, improving watershed health, water quality and salmonid habitat.

PROJECT IMPLEMENTATION AND ACCOMPLISHMENTS

Work was performed using accepted techniques in conformance with existing/future management plans. Road upgrading included installing rolling dips and ditch relief culverts, road shaping, excavating unstable fillslope, and upgrading stream crossings. Road decommissioning included road ripping/decompaction, installing cross-road drains, and in-place and export outslowing.

Work was undertaken during low-flow periods to minimize water quality impacts. Excavators opened access to each site, excavated soil and organic debris, placed excavated spoil on stable slopes, decompacted roadbeds, outslowed old roadbeds, mulched treated roads, constructed crossroad drains, and installed ditch relief and culverts. Bulldozers were used to create access, push excavated material to disposal sites, groom off-site spoil disposal sites, and rip, outslope and construct rolling dips. Dump trucks were used to endhaul spoil on the decommissioned roads.

COMPLETION DATE

October 2009

PROJECT BUDGET

Total cost: \$537,971

NEXT STEPS & RECOMMENDATIONS

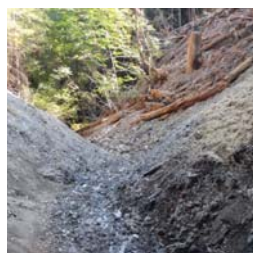
Based on small-scale post-treatment adjustments at several decommissioned crossings, side slopes should be laid back more than 2 to 1 (<50%) if there is evidence that spring flow seepage emerges from or discharges onto excavated streambank sideslopes. Additionally, road treatment on lower hillslopes may be complicated by problematic upslope roads. If upslope sediment delivery sites are identified, a thorough assessment should be completed during wet winter months paying particular attention to potential hydrologic impacts to the target road. If upslope conditions show potential for hydrologic impacts to roads proposed for treatment, the treatment plan should be modified to remediate impacts.

CONTACT

Pacific Coast Fish, Wildlife and Wetlands Restoration Association
PO Box 4574
Arcata, CA 95518

CITATION

¹ Using a benefit of \$6/ton to represent the sum of several avoided costs associated with reducing sedimentation; Hansen, L. and M. Ribaudo. 2008. Economic Measures of Soil Conservation Benefits: Regional Values for Policy Assessment. U.S. Department of Agriculture. Technical Bulletin No. 1922.



NORTH COAST RESOURCE PARTNERSHIP