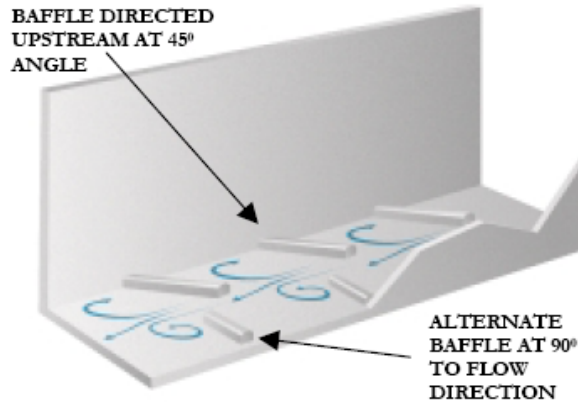


# FINAL REPORT

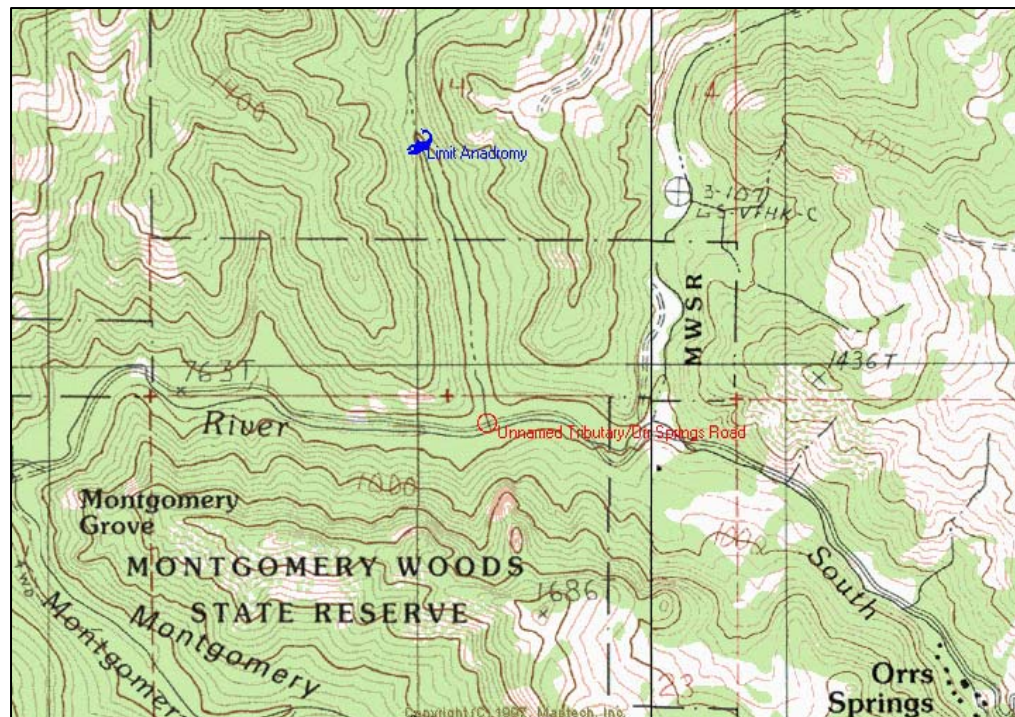
MENDOCINO COUNTY DEPARTMENT OF TRANSPORTATION (MDOT)



**Project Title:** Pruitt Creek Instream Fish Barrier Removal, Orr Springs Road, CR 223, Job # C-0306

**Project Summary:** The Mendocino County Department of Transportation with \$23,260 in financial participation by the California Department of Fish & Game Coastal Salmon Recovery Program funds, AGREEMENT NO. P0230413, made habitat improvements for Salmonid passage to the Pruitt Creek (an Unnamed Tributary to the South Fork Big River) culvert on Orr Springs Road west of Ukiah. The Mendocino County Department of Transportation contributed \$ 5,062.00 in kind professional services. Construction was begun September 15, 2004 and completed in the channel by October 1, 2004.

**Project Location:** The property is at mile marker 26.10 on Orr Springs Road # 223 about 45 minutes west of Ukiah. See Township 16 North, Range 14 West, Section 20; or Latitude 39° 14' 10.31" North and Longitude 123° 22' 48.32" West on the USGS 7.5" Bailey Ridge Quadrangle.



**Project Definition:** From 1998 to 2000, The Five Counties Salmon Restoration effort, funded, through a grant from the California Department of Fish and Game, employed Ross Taylor, a fisheries biologist, to evaluate and rank Mendocino County road stream crossings for fish passage ability (*FINAL REPORT: COASTAL MENDOCINO COUNTY CULVERT INVENTORY AND FISH PASSAGE EVALUATION*, 2001). Taylor used inventory methods and protocols consistent with CDFG standards and protocols.

The tasks for that project were to conduct an inventory of stream crossings on Mendocino County roads, evaluate juvenile and adult fish passage, and develop a project-scheduling document that prioritizes corrective treatments to provide unimpeded fish passage. The inventory was limited to the anadromous reaches of streams known historically and/or currently to support runs of coho salmon, chinook salmon, and steelhead.

The inventory process identified a priority site (#10 of 54 sites visited in Mendocino County) along Orr Springs Road in the Big River watershed.

Pruitt Creek flows directly into Big River just below Orr Springs Road. The surrounding area is covered by redwoods, coniferous and hardwood forests in a steep terrain ranging from 700 to 1,200 feet in elevation. The drainage area above the culvert at Pruitt Creek and Orr Springs Road is 2.2 square miles, with 2,900 feet of useable habitat.

**Project Description:** This project modified a rectangular concrete box culvert that is 10 feet high by 12 feet wide, and 29 feet long. Presently fish passage is hindered by stream velocity and depth, the plan was to modify the existing culvert fish barrier. The culvert apron is short and lacks sufficient depth at lower flows for salmon fish passage. At high flows, the velocities are too high for salmon fish passage. Mendocino County DOT installed a boulder weir downstream of the structure to increase water depth in the culvert and to use baffles to break up flow velocities that will allow anadromous fish passage at all life stages. The structure is designed to meet the National Marine Fisheries Service (NMFS) Guidelines. The modification of this road structure will help with the recovery of salmonid populations in providing access to about 2,900 feet of spawning habitat on Pruitt Creek - an Unnamed Tributary to the South Fork Big River. This project required a one-lane detour with traffic stop signs in both directions during the week of September 20, 2004. The project was completed on October 1, 2004.

Prepared by

LAND IMPROVEMENT DIVISION  
MENDOCINO COUNTY DEPARTMENT OF TRANSPORTATION (MCDOT)

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Howard N. Dashiell                      DATE  
Civil Engineer  
Drainage and Habitat Conservation

A photo summary by Howard Dashiell is attached.  
A NOAA Fisheries report summary by Ross Taylor is attached