

# FINAL REPORT

MENDOCINO COUNTY DEPARTMENT OF TRANSPORTATION (MDOT)



## Project Title:

Deer Creek Instream Fish Barrier Removal, Wilderness Lodge Road, CR 320, M.P. 2.60  
Job # D-0201

## Project Summary:

The Mendocino County Department of Transportation with \$97,485.00 in **financial participation by the California Department of Fish & Game Coastal Salmon Recovery Program** funds, AGREEMENT NO. P0130432, made habitat improvements for Salmonid passage to the Deer Creek culvert on Wilderness Lodge Road west of Laytonville. The Mendocino County Department of Transportation contributed \$ 166,356.00 in kind professional services. Construction was begun in August and completed in the channel by October 15, 2003.

## Project Location:

The property is at mile marker 2.60 on Wilderness Lodge Road # 320 about 45 minutes west of the Laytonville off Branscomb Road. See Township 21 North, Range 16 West, Section 4; or Latitude 39° 42' 32.01" North and Longitude 123° 39' 01.51" West on the USGS 7.5" Lincoln 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 (#8 of 54 sites visited in Mendocino County) along Wilderness Lodge Road in the South Fork of the Eel River watershed.

Deer Creek flows directly into South Fork of the Eel River just below Wilderness Lodge Road. The surrounding area is covered by coniferous and hardwood forests in a steep terrain ranging from 1000 to 3,000 feet in elevation. The drainage area above the culvert at Deer Creek and Wilderness Lodge Road is 1.2 square miles, with 3,700 feet of useable habitat. (Taylor 2001)

The existing culvert is a 7-foot diameter and 30-foot length CMP. The active channel width is 10.5 feet. This project ranks # 8 in priority on Taylor's Final Rank List.

### **Work and Objectives**

The work plan was to replace the existing circular culvert with a bottomless, premanufactured arch structure of adequate size that will allow anadromous fish passage at all life stages, and is designed to be 1.5 x the active channel width of 10.5 feet according to the National Marine Fisheries Service (NMFS) Guidelines. The construction of this 16' wide x 6' high x 40' long structure will help with the recovery of depleted salmonid populations and demonstrate MCDOT actions that can be accomplished in conjunction with the Five-County salmonid restoration effort.

### **Project Description**

Project tasks were as follows. Obtain necessary permits and hire the subcontractor(s) for specialty structures and equipment. After August 19<sup>th</sup> crews begin the project with the 5 Counties fisheries biologist, Ross Taylor, who design and executed fish and sensitive species relocation outside the work zone, stream diversion, and netting. County of Mendocino road crews bypassed stream flow around the construction site. The project required a one-lane detour with traffic stop signs in both directions from August 25 to October 10, 2005 - a 54 -day construction period. With use of an excavator, the existing structure and backfill will be removed. Spoils will be stockpiled out of the channel and so that sediment from the spoils could not enter a drainage or watercourse. The concrete foundation was poured against neat excavation and forms on September 9, 2003. Crews lowered, via crane, sections of a premanufactured open bottom arch culvert and wing walls on September 23, 2003. Crews backfilled and restore the road prism and removed the detour October 10, 2003. Crews restored the channel bottom washing replaced rock with a water truck while BMP's and dewatering systems were still in place before reintroduce normal stream flow on October 14, 2003.

Crews installed winterization BMP's on disturbed surfaces, and replacement plants by October 31, 2003. County of Mendocino road crews will maintain said BMP's throughout winter of 2003-04.

Prepared by

LAND IMPROVEMENT DIVISION  
MENDOCINO COUNTY DEPARTMENT OF TRANSPORTATION (MCDOT)

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Drainage and Habitat Conservation

A photo summary by Howard Dashiell is attached.

A NOAA Fisheries report summary by Ross Taylor is attached