

# FINAL REPORT

## MENDOCINO COUNTY DEPARTMENT OF TRANSPORTATION (MDOT)



### **Project Title:**

Digger Creek Flood Control, Ocean Drive, CR 436, M.P. 0.13 - Job # D-0203

### **Project Summary:**

The Mendocino County Department of Transportation with \$191,665.00 in **financial participation by the California Department of Water Resources & California Coastal Conservancy through “The Safe Neighborhood Parks, Clean Water, Clean Air and Coastal Protection Bond Act of 2000” (2000 Parks Bond Act)** funds, made habitat improvements for Salmonid passage to the Digger Creek culvert on Ocean Drive south of Fort Bragg. The Mendocino County Department of Transportation contributed \$ 1,150.00 in kind professional services. Construction was begun in September 4, 2003 and completed in the channel by October 15, 2003.

**Project Location:** The property is at mile marker 0.13 on Ocean Drive # 436 in Fort Bragg. See Township 18 North, Range 18 West, Section 24; or Latitude 39° 24’ 24.06” North and Longitude 123° 48’ 32.18” West on the USGS 7.5” Fort Bragg Quadrangle.

### **Project Description:**

In the summer of 2001 The Mendocino County Department of Transportation (MCDOT) was invited to a meeting held by Richard Owens of the Mendocino Coast Botanical Gardens. There were representatives from the State of California Department of Water Resources, Land Trust, and offices of elected Assembly and Senate Distracts, etc. The Mendocino Coast Botanical Gardens was proposing a restoration and flood control project along Digger Creek, which would produce a more natural condition for plants and animals. The replacement of the County Road culvert at Ocean drive was a necessary part of their plan. MCDOT’s position on this and other similar matters is to incorporate with projects when there is a benefit to the County Maintained Road system, which justifies the expenditure of department funds.

MCDOT along with the Mendocino County Water Agency had previously applied for, and been denied, a grant to replace the subject culvert under SB 271 in 2000. 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 inventory process identified a priority site (#5 of 54 sites visited in Mendocino County) along Ocean Drive. The listing of this site was the reason for the abovementioned CDF&G SB 271 grant application in 2000.

Digger Creek flows directly into the Pacific Ocean just below Ocean Drive. The surrounding area is covered by residential development, forests in a gentle terrain ranging from 100 to 300 feet in elevation. The drainage area above the culvert at Digger Creek and Ocean Drive is 1.2 square miles, with 2,900 feet of useable habitat (Taylor 2001).

### **Work and Objectives:**

The work plan is to replace the existing 6'W x 3.9'H x 60'L arch culvert with a bottomless, premanufactured arch structure (12' wide x 4' high x 60' long) of adequate size to pass the 1 % probability (100yr) storm peak flow to pass without flooding the road, and that will allow anadromous fish passage at all life stages, and is designed to be 1.5 x the active channel width of 8 feet according to the National Marine Fisheries Service (NMFS) Guidelines.

### **Project Timeline:**

Project tasks were as follows. Obtain necessary permits and hire the subcontractor. After September 6<sup>th</sup> (Major Gardens fundraiser) 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 closing Ocean Drive to all traffic from September 9<sup>th</sup> to October 10<sup>th</sup>, 2003 - a 32 -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 18, 2003. Crews lowered, via crane, sections of a premanufactured open bottom arch culvert and wing walls on October 8, 2003. Crews backfilled and restore the road prism and opened the road to traffic on October 10, 2003. Crews restored the channel bottom and washing 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 November 1, 2003. County of Mendocino road crews will maintain said BMP's throughout winter of 2003-04.

**Project Inspection Report Statement:**

The subject project as described above and within the project construction plans has been built in accordance with those plans and specifications and inspected by the undersigned.

LAND IMPROVEMENT DIVISION  
MENDOCINO COUNTY DEPARTMENT OF TRANSPORTATION (MCDOT)

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Howard N. Dashiell                      DATE  
Civil Engineer, RCE 42001, exp. 3-31-06  
Drainage and Habitat Conservation

A photo summary by Howard Dashiell is attached.

A NOAA Fisheries report summary by Ross Taylor is attached