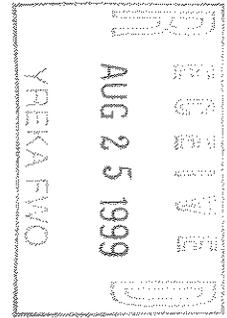


FINAL REPORT  
MC KINNEY CREEK FISH SCREEN

AGREEMENT 11333-8-J142  
PROJECT NUMBER 89-JITW-39

98



**Abstract:** The purpose of the project was to implement a fish screen on McKinney Creek, a tributary to the Klamath River. The project supports a continuing effort by the U.S. Fish and Wildlife Service and the California Department of Fish and Game (CDFG) to reduce mortality of outmigrating juvenile steelhead. The purpose of the program is to provide better management of resources (water for agricultural purposes) and fishery protection through screen installation. All life stages of steelhead (*Onchorynchus mykiss*) are present in the creek and are the benefit species for this project.

**Screen Maintenance:** The operator is satisfied with the design; is willing to provide the daily maintenance that will be required; and is wholly supportive of the goal of keeping juvenile fish in the stream. The screen will be installed at the start of each irrigation season and removed each fall.

**Screen Construction:** The unscreened irrigation ditch was rated for the volume of water to be screened and a prototype mild steel tube screen was installed during the 1998 irrigation season. A low cost prototype was needed to assess the suitability of this type of screen for the site and to ensure that it did not unduly hamper the landowner's operation. The prototype screen functioned properly throughout the irrigation season and the landowner was satisfied with the design.

Construction of a permanent stainless steel tube screen was then completed. Jim Whelan, CDFG, assisted the Shasta Valley RCD on screen design (a tube screen) and installation. Installation was completed on April 19, 1999. This screen met the criteria specified by the National Marine Fisheries Service (NMFS) for the protection of juvenile salmonids. Specifically, the design criteria limits the approach velocity of water coming into the screen to .33 feet/second and the hole diameter cannot exceed 3/32". The approach velocities for tube screens were tested by engineering staff of the National Marine Fisheries Service and the California Dept. of Fish and Game with test results showing that this screen would function according to NMFS criteria for the rated flow.

Disturbance within the channel was minimal, as no heavy equipment was necessary to install the screen.

**Conclusion:** The Shasta Valley RCD is pleased with the McKinney Creek Fish Screen Project and that the diversion user is willing to accept the responsibility of cleaning and maintaining the screen.

There is screen material left over from the project. It is proposed that this material be used to construct a fish exclusion screen for some other small unscreened diversion from anadromous waters within Siskiyou County. There would be no additional charge to the project for the work; all labor for screen construction would be born by the California Dept. of Fish and Game and the Shasta Valley Resource Conservation Service.

FINAL BUDGET  
 AGREEMENT 11333-8-J142  
 PROJECT NUMBER 89-JITW-39

Item	Budget	Costs	In-Kind
Personnel Salaries/Benefits	\$806.00	\$649.76	\$1500.00
Materials & Supplies:	\$500.00	\$828.70	
Roy Manufacturing	\$295.00		
Viking Freight	96.00		
CDFG	132.00		
Pacific Metal	68.70		
Yreka Machine	13.60		
Welding Supply	22.00		
Heaton Steel	<u>201.40</u>		
Direct Cost Sub Total	\$1306.00	\$1478.46	
Indirect Costs (Overhead): 15%	<u>\$ 194.00</u>	<u>\$ 221.77</u>	
Totals:	\$1500.00	\$1700.53	\$1500.00