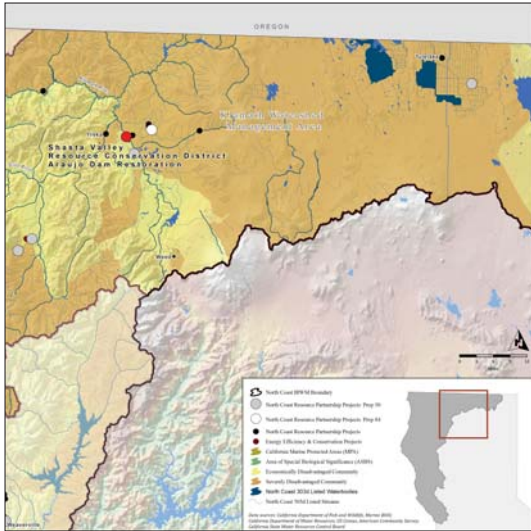


# Araujo Dam Restoration Project

SHASTA VALLEY RESOURCE CONSERVATION DISTRICT



## STATEMENT OF THE PROBLEM

Historic land use practices dating back to circa 1912 include the annual installation of “flashboards” in a dam structure, to raise water levels high enough to ensure they feed irrigation ditches located upstream. Impacts included low dissolved oxygen levels, increased water temperature, and the presence of a fish passage barrier during summer and earl fall.

## PROJECT GOALS

The goal of the Araujo Dam Project was to implement a project to meet fish passage and TMDL water quality objectives while ensuring that water users meet regulatory requirements and can maintain the economic viability of the agricultural operations.

## THE SOLUTION

In 2005 the Natural Resources Conservation Service (NRCS) began working with land-owners on a solution to provide irrigators with their adjudicated water rights while at the same time providing for year-around fish passage. These early planning efforts also focused on individual on-farm efficiency evaluations for the five ranches involved in this project. The early planning efforts allowed NRCS to be one of the first major contributors of funding to support construction activities and helped the Shasta Valley Resource Conservation District leverage enough funding for the project to begin construction activities.

The first phase of construction began in July 2007 and included in-stream components such as the installation of the boulder weir, construction of the fish screen and the new pumping station. Instream construction activities occurred when salmonids were least likely to be present—during the hot summer months. Instream construction activities were largely completed with the removal of the Araujo Dam in October of 2007. Shortly after the removal of the dam the second phase of construction began with the installation over 5 miles of pipelines. Construction efforts began in November of 2007 and were completed in September 2009.

## PROJECT IMPLEMENTATION AND ACCOMPLISHMENTS

The following activities were implemented to meet this goal:

- Removal of the Araujo Dam
- Installation of a “boulder weir” that provides for year-round fish passage while at the same time providing water for irrigators
- Installed 4 individual electric pumps that will encourage water users to conserve water
- Protected fish from the 4 diversions by installing a fish screen that meets current CA Department Fish and Wildlife and National Marine Fisheries Service criteria

- Installed pipelines to assist with better water management and reduce tailwater
- Implemented a monitoring program to document pre and post project conditions and to assess if the goals of this project were achieved

## COMPLETION DATE

October 2009

## PROJECT BUDGET

CA SWRCB Prop50—IRWM	\$769,904
CA Department of Fish and Game	\$1,111,620
U.S. Fish and Wildlife Service	\$74,338
Natural Resources Conservation Service	\$447,191
National Fish and Wildlife Foundation	\$230,348
<b>TOTAL</b>	<b>\$2,633,401</b>

## BENEFITS

### Economic

- Avoided maintenance costs of approximately \$99,341

### Water Conservation and Reuse

- Increased flow

	Diversion (acre-ft/season)	Diversion (cubic-ft/sec)
Pre-project	4373.9	12.1
Post-project	1993.2	6.6

- » 2009 actual water savings as a result of on-farm water conservation activities associated with the Araujo Dam Removal and Water Quality Improvements Project.

### Watershed Rehabilitation

- Improved fish and wildlife habitat
  - » Improved fish access to 32 miles of rearing habitat
  - » Reduced predation by non-native fish due to increased pond water circulation
  - » Diversion screening to reduce fish losses in fields

### Cultural

- Agricultural heritage preservation. These projects have assisted with attaining compliance with TMDL requirements, thus helping to ensure agricultural sustainability in the watershed.
- Conflict resolution. This area of the North Coast has received a lot of attention for tension between agricultural and environmental interests; this project provides positive outcomes for both.

### Jobs and Local Economy

Over \$2.5 million was spent locally using local labor and supplies when possible, thus contributing to State goals for environmental justice and social equity

## NEXT STEPS AND RECOMMENDATIONS

Similar projects should be undertaken throughout the watershed in order to have a significant effect on stream water temperature and dissolved oxygen levels.

### CONTACT

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