

a. Project Title and Applicant Name

Title: Implementing CALFED Study Decommissioning Englebright Dam and Restoring Salmon and Steelhead in the Yuba River System.

Applicant: South Yuba River Citizens League (SYRCL) in cooperation with the Yuba Watershed Restoration Group MOU, the California Hydropower Reform Coalition and the Planning & Conservation League.

b. Project Description and Primary Ecological/Biological Objectives

This project will implement the CALFED Bay-Delta Program Programmatic Action 1(C) in the Feather River/Sutter Basin Ecological Zone Ecosystem Restoration Program Plan. This Action is to "conduct a cooperative study to determine the feasibility of removing Englebright Dam on the Yuba River to allow chinook salmon and steelhead access to historical spawning and rearing habitats." (ERPP, Volume II, page 273) Phase I reconnaissance level studies will be conducted over the next year to ascertain available habitat, sediment issues, and hydrological concerns that will arise with the decommission or retrofit of Englebright Dam. Cooperative relationships and participatory watershed meetings will continue to be held to discuss this issue specifically.

This project — fully implemented — can be expected to address priority habitats and species as identified by CALFED. Historic habitat in the Yuba Watershed is substantial, *and opportunities for restoration present CALFED with an historic opportunity* to implement a restoration program on an entire river system with *comparatively* few negative consequences.

Englebright Dam was built in 1941 to allow the resumption of hydraulic mining in the Yuba Watershed. It has never been used for its original purpose and provides no flood control benefits. It has, however, profoundly altered the character of the several hundred miles of the Yuba River system by blocking upstream migration of anadromous salmon and steelhead. In addition, while the Yuba River below Englebright continues to host sizeable populations of wild spring- and fall-run salmon and one of the only remaining wild steelhead populations in the Central Valley, the dam significantly and detrimentally disrupts the replenishment of gravels and sediments in the lower Yuba.

This study proposes to answer the following questions: Does suitable salmon and steelhead habitat remain above Englebright? Are sediments behind the dam of a quantity or quality to be unmitigable? And is it possible to construct a water temperature and flow regime adequate to the survival of salmon and steelhead?

c. Approach/Tasks/Schedule

Phase I of the "Cooperative Study of Englebright Dam Removal" will provide detailed reconnaissance level research on the questions identified as *essential and key* at the May 5, 1998 multi-stakeholder "Upper Yuba Salmon and Steelhead Restoration" meeting held at the US Forest Service in Nevada City. These consist of three "study areas:"

Study Area 1: Habitat Suitability and Availability above Englebright Dam

The Yuba River Watershed drains some 1,325 square miles of the Sierra Nevada. On the South Yuba and the Middle Yuba Rivers, in excess of 300 miles of river and tributaries would be available to salmon and steelhead were it not for Englebright. The PCL's North Yuba Restoration Study will investigate the suitability of an additional 200 miles of river and tributary in that system. Assessing the suitability and current availability of this habitat will constitute Study 1 of Phase I;

Study Area 2: Water Rights and Water Temperature/Flow Regimes

Study Area 2 will provide detailed modeling of Water temperature needs and water flow regimes necessary to sustain salmon and steelhead in the upper reaches of the Yuba River. Comprehensive modeling of water temperatures in the study area is necessary for evaluating potential habitat. Investigators will model water temperatures in the study area and in the lower Yuba River using well-established hydrodynamic and temperature models (RMA-2 and RMA-11) used recently for the Sacramento River Temperature Modeling Project (CEWRC 1997);

... will focus on existing and developing information on mercury contamination as it relates to the feasibility of removing Englebright Dam and small tributary dams. Additionally, this project will utilize extensive research in progress by the Army Corps of Engineers and the Yuba County Water Agency regarding levels of sediment loading behind Englebright Reservoir.

Schedule: Each study area will be completed within 12 months after award of contract.

Deliverables: The information developed in each of the three study areas will be compiled into three separate reports: A Summary Report, a Main Report, and a Water Temperature Technical Report.

d. Justification for Project and Funding by CALFED

This proposal addresses the following issues identified by CALFED:

Priority Habitat. The Yuba River system represents a *priority habitat* as identified by CALFED, an instream aquatic habitat that provides spawning and rearing habitat for the anadromous species in the Bay-Delta ecosystem.

Priority Species. In all, twenty eight species of resident and anadromous fishes occur in the Yuba River. The Yuba River is recognized as a significant producer of naturally spawned spring- and fall-run salmon and steelhead and was once known nationwide for its outstanding shad fishery. The lower Yuba also contains bass, green sturgeon, and a number of threatened and endangered species.

Reduced or Eliminated Stressors. In addition to blocking off all access to several hundred miles of habitat in the upper watershed, Englebright Dam is responsible for negative impacts on remaining habitat in the lower Yuba River. These include hydrographic alterations, migration barriers and straying, elimination of fine sediment replenishment, reduction in gravel recruitment and increased contaminants. Additional benefits include significant economic gains upriver and potential flood control benefits.

e. Budget Costs and Third Party Impacts

The budget for this project is \$274,870. A total of \$190,000 is requested from CALFED, which will leverage additional contributions totaling \$85,000: \$25,000 from the National Fish and Wildlife Foundation (letter attached), \$35,000 from private corporations (received), and additional major donor contributions totaling \$25,000. An additional \$464,200 is leveraged from Proposition 204 funds, the National Fish and Wildlife Foundation, the Four Pumps allocation and private grantors.

f. Applicant Qualifications

The South Yuba River Citizens League (SYRCL) is a widely respected non-profit watershed organization in its 15th year of operation. SYRCL has close working relationships with many local, state and federal agencies, private and public grantors, and the National Fish and Wildlife Foundation. Consultant John Williams is the Executive Director of the San Francisco Bay-Delta Modeling Forum and an independent consultant. Consultant Michael Deas is a registered professional Civil Engineer, and has served as the Consulting Engineer on the Trinity Reservoir Water Temperature Simulation Model and as Senior Engineer with Earth Science Associates.

g. Monitoring and Data Evaluation

An aggressive monitoring program has been developed and approved by the Yuba Watershed Restoration Group MOU for funding under Proposition 204. This "Yuba Riverkeeper" is a \$175,000 three-year comprehensive monitoring plan for the Yuba River. Additionally, results of the three Phase I studies represented in this project will be peer-reviewed, with extensive agency input.

h. Local Support/Coordination with other Programs/Compatibility with CALFED objectives

This proposal has been endorsed by 17 local, state and federal organizations involved in the Yuba Watershed Restoration Group MOU and coordinates with the implementation of Proposition 204 programs, the "Yuba RiverKeeper" and the South Yuba River Management Plan. This proposal has also been endorsed by the California Planning & Conservation League and the Hydropower Reform Coalition.

Local Govt. Support?