

Executive Summary

99C-116

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Project Title. A Clear Creek Prescription (CCR_x)

Applicant. Western Shasta Resource Conservation District (RCD).

Background. Clear Creek is a 154,820-acre watershed (62,653 ha) in the northwestern portion of the Upper Sacramento River Basin. It is the first major watercourse entering the Sacramento River downstream from fish-blocking Keswick and Shasta Dams. Annually, the watershed generates 270,000 acre-feet (af) of water and nearly 1 million more af pass through Clear Creek from the Trinity River to the Sacramento River. Tunnels link these drainages hydrologically, while dense stands of vegetation with heavy fuel loads link the drainages vegetatively. Heavy erosion following catastrophic fires originating in the Clear Creek drainage could adversely affect storage in any of the six reservoirs in the Shasta-Trinity CVP complex as well as the substantial CVP/CALFED fishery investments below the Whiskeytown Dam. Given the proximity of Clear Creek to the dams and the lowermost reaches of the reservoirs, much of the lost storage in the larger reservoirs following a fire/erosion event would be cold water storage in their deepest portions, disproportionately impacting temperature management regimes for anadromous fishes in the mainstem. Fire/erosion impacts on the storage of acid mine drainage in the small Spring Creek Reservoir (5870 af) could be relatively large, significantly impacting water quality management since high acid runoff tends to coincide with periods in which flood control needs limit releases of diluting waters from reservoirs. Recently written Watershed Analyses outline tasks to improve watershed processes. To implement these tasks this application seeks CALFED support. The affected area is the entire watershed.

Objectives. The purpose of the CCR_x is to detail an ecosystem-based watershed management prescription on this diverse watershed that can also serve as a model for other watersheds in the state. The overall goal is to achieve CALFED's vision of restoring important fishery, wildlife, and plant communities to a healthy condition. Specific social, biological, and ecological objectives for this two-year project are:

- Involve the local community and stakeholders in a collaborative, non-regulatory forum for developing projects to address water quantity and quality issues, restore fish habitat, and protect natural processes.
- Enhance existing partnerships by facilitating watershed coordination under the umbrella of the RCD.
- Effectively use education and information to promote acceptance of watershed stewardship projects.
- Use "Eco-Morph" software allow land managers and stakeholders to visualize the watershed as an ecosystem and model how the vegetation in Clear Creek changes with their management inputs.
- Create and maintain habitats for fish, wildlife, neotropical migratory birds, and plant communities by implementing on-the-ground fuel/fire management and erosion/sediment control restoration projects.
- Assess the transportation system to rank rehabilitation of roads and trails that affect water and fish habitat.
- Base planning, implementation, and monitoring efforts and activities on strong science and data.
- Develop a monitoring strategy allowing adaptive response to additional data or changes in the watershed.

Tasks to Achieve Objectives. The RCD has taken a leadership role in conservation and restoration work in Clear Creek and will further this effort by completing the following tasks over the next two years:

- Coordinate conservation work and information in the Clear Creek watershed.
- Inform, educate, and build trust between stakeholders (including students and teachers) on the watershed's restoration issues.
- Use "Eco-Morph" 3-D computer visualization software to plan long-term watershed protection activities.
- Plan, conduct, and monitor on-the-ground restoration projects dealing with fuels and erosion/sediment that also benefit fish and wildlife habitats and plant communities.
- Evaluate the transportation system in a manner consistent with ecosystem management principles to reduce

erosion and sedimentation.

Benefits. The proposed activities focus on reducing primary environmental stressors in the watershed. These stressors include advanced erosion from past human activities, the accompanying transportation corridors and roads built within the watershed, and the threat of catastrophic fire from past fuels and fire management policies. Reducing the causes of stress in Clear Creek and the losses of habitat from these stressors will benefit CALFED priority species, specifically Chinook salmon, steelhead, resident native fish species, and migratory neotropical birds. The Bay-Delta will also receive cleaner water from a more biologically and hydrologically healthy watershed. Through our community meetings the RCD believes Clear Creek residents have a strong conservation ethic. This RCD will reinforce this ethic with a strong collaboration and education component.

Costs. The project has been divided into six general tasks. Task T1 is critical to the project.

Task	Timing	Funding
T1. Coordination and Management	FY 2000-2001	\$91,900
T2. Education and Information	FY 2000-2001	16,445
T3. "Eco-morph" Visualization Model for Long-term Planning	FY 2000	46,000
T4. Watershed Restoration: Fuels	FY 2000-2001	24,865
T5. Watershed Restoration: Erosion, Sediment, and Gravel	FY 2000-2001	123,050
T6. Transportation Evaluation	FY 2000	20,700
CALFED Total		\$322,960

The RCD will also pursue the financial cooperation of the federal land management agencies in the watershed to complete conservation work on their respective lands. Over \$100,000 in private and federal funds enabled the RCD to complete Clear Creek watershed analyses and data collection. The RCD expects these partners to continue their support of projects in this proposal. The RCD anticipates any CALFED funding to compliment and not replace agency funding for projects in the watershed.

Adverse and Third Party Impacts. No adverse or third party impacts are anticipated. All projects will involve voluntary agreements with any affected parties.

Applicant Qualifications. This proposal will be carried out by the Western Shasta Resource Conservation District, an independent special district within Shasta County. The RCD has been implementing erosion control projects, fish and wildlife restoration projects, fuels planning and reduction projects, and educational projects since 1957. Since 1997, the RCD has performed numerous planning and restoration projects in Clear Creek and has a good-to-excellent working relationship with landowners and agencies in the watershed.

Monitoring and Data Evaluation. The CCR_x will implement a monitoring program that focuses on specific indicators of ecosystem health. Monitoring results will be used to adapt and improve future restoration projects.

Local Support/Coordination/Compatibility with CALFED. This initiative builds on the efforts of community groups and the Northwest Sacramento Provincial Advisory Committee (PAC). It is compatible with CALFED's objective to build watershed stewardship initiatives that are community-based, locally-led partnerships representing a diverse range of interests. The partners for this project are: Western Shasta RCD; USDA-Forest Service; USDA-Natural Resources Conservation Service; USDI-Bureau of Land Management; USDI-Bureau of Reclamation; USDI-National Park Service, USDI-Fish and Wildlife Service; California Department of Forestry and Fire Protection; Lower Clear Creek CRMP; Shasta College; Whiskeytown Environmental School; University of California-Cooperative Extension; Sierra Pacific Industries; and other private landowners.