99B-135

CALFED Ecosystem Restoration Proposal Solicitation
Western Shasta Resource Conservation District
April 1999

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I-014775

I. COVER SHEET

April 1999 CALFED ECOSYSTEM RESTORATION PROPOSAL SOLICITATION

Proposal Title: **Lower Clear Creek Floodway Restoration Project**

Applicant Name: Western Shasta Resource Conservation District

Primary Contact: Jeff Souza

Mailing Address: 3179 Bechelli Lane, Suite 110
Redding, CA 96002

Telephone: (530) 246-5299
Fax: (530) 246-5164
E-mail: WSRCD@mailcity.com

Amount of funding requested: $4,901,553 for three years.

Indicate the Topic for which you are applying (check only one box).

- ☐ Fish Passage/Fish Screens
- ☑ Habitat Restoration
- ☐ Local Watershed Stewardship
- ☐ Water Quality
- ☐ Introduced Species
- ☐ Fish Management/Hatchery
- ☐ Environmental Education

Does the proposal address a specified Focused Action? YES – Sacramento River

What county or counties is the project located in? Shasta County

Indicate the geographic area of your proposal (check only one box):

- ☐ Sacramento River Mainstem
- ☐ Delta
- ☐ Suisun Marsh and Bay
- ☐ San Joaquin River Mainstem
- ☐ Landscape (entire Bay-Delta watershed)
- ☑ Sacramento Tributary: CLEAR CREEK
- ☐ East Side Delta Tributary: _____
- ☐ San Joaquin Tributary: _____
- ☐ Other: _____
- ☐ North Bay: _____

Indicate the primary species which the proposal addresses (check all that apply):

- ☐ San Joaquin and East-side Delta tributaries fall-run chinook salmon
- ☐ Winter-run chinook salmon
- ☑ Late-fall run chinook salmon
- ☐ Delta smelt
- ☐ Splittail
- ☐ Green sturgeon
- ☐ Migratory birds
- ☐ Other
- ☑ Spring-run chinook salmon
- ☑ Fall-run chinook salmon
- ☐ Longfin smelt
- ☑ Steelhead trout
- ☐ Striped bass
- ☐ All chinook species
- ☐ All anadromous salmonids

Specify the ERP strategic objective and targets that the project addresses. Include page numbers from January 1999 version of ERP Volume I and II.

Strategic Objectives this project addresses:

1. Ecosystem Strategy: The general structure of the planning framework is a stair step concept from the upper to the lower areas of Lower Clear Creek.
2. Guiding Ecological Principles: Key ecological scientific principles are used to guide the selection of goals and strategies to attain the goals.
3. Support CALFED objectives: Native Species Recovery and Conservation (Solicitation Package, page 13), Rehabilitation and Protection of Natural Resources (Solicitation Package, page 14), Recreational and Commercial Species (Solicitation Package, page 15), Habitats (Solicitation Package, page 15), Introduced Species (Solicitation Package, page 16).

Targets this project addresses:

1. Ecological Processes: Increase flow in Clear Creek to 150 to 200 cfs from October 1 to May 31 and to 100 to 150 cfs from June 1 to September 30. Volume II, page 213.
2. Coarse Sediment Supply: Maintain existing levels of erosion and gravel recruitment in streams of the North Sacramento Valley Ecological unit and, where necessary, supplement gravel recruitment through adaptive management and monitoring. Volume II, page 213.
3. Coarse Sediment Supply: Increase existing levels of erosion and gravel recruitment in Clear Creek by 25 to 50 tons per year. Volume II, page 213.
4. Steam Meander: Create a more defined stream channel in the lower 8 miles of Clear Creek to facilitate fish passage. Volume II, page 214.
5. Natural Floodplain and Flood Processes: Increase and maintain the Clear Creek floodplain in conjunction with stream meander corridor restoration. Volume II, page 215.
6. Natural Floodplain and Flood Processes: Reestablish natural floodplain and stream channel meander in the lower 8 miles of Clear Creek. Volume II, page 215.
7. Riparian and Shaded Riverine Aquatic Habitats: Develop a cooperative program to establish riparian habitat zones along streams in the North Sacramento Valley Ecological Zone through conservation easements, fee acquisition, or voluntary landowner measures. Volume II, page 215.
8. Freshwater Fish Habitat and Essential Fish Habitat: Maintain and improve existing freshwater fish habitat and essential fish habitat through the integration of actions described for ecological processes, habitats, and stressor reduction or elimination. Volume II, page 216.

Indicate the type of applicant (check only one box):

- ☐ State agency
- ☐ Federal agency
- ☐ Public/Non-profit joint venture
- ☐ Non-profit
- ☑ Local government/district
- ☐ Private party
- ☐ University
- ☐ Other:

Indicate the type of project (check only one box):

- ☐ Planning
- ☑ Implementation
- ☐ Monitoring
- ☐ Education
- ☐ Research

By signing below, the applicant declares the following:

1) The truthfulness of all representations in their proposal;

2) The individual signing the form is entitled to submit the application on behalf of the applicant (if applicant is an entity or organization); and

3) The person submitting the application has read and understood the conflict of interest and confidentially discussion in the PSP (Section II.K) and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent as provided in the Section.

THOMAS T ENGSTRUM, DIRECTOR WSRCD

Printed name of applicant

(Signature of Applicant)

II. TITLE PAGE

LOWER CLEAR CREEK FLOODWAY RESTORATION PROJECT

A Proposal Submitted by:

Western Shasta Resource Conservation District
3179 Bechelli Lane, Suite 110
Redding CA, 96002
Phone: (530) 246-5299 Fax 221-4809
E-mail: WSRCD@mailcity.com

In collaboration with:

Lower Clear Creek Coordinated Resource Management and Planning Group
and
Lower Clear Creek Technical Work Group

Local government/district
Tax ID number: 68-028-5373

April 15, 1999

III. EXECUTIVE SUMMARY

PROJECT TITLE: **Lower Clear Creek Floodway Restoration Project**
PROJECT APPLICANT: **Western Shasta Resource Conservation District**

PROJECT DESCRIPTION AND PRIMARY OBJECTIVES: Lower Clear Creek, located in the North Sacramento Valley Ecological Zone, offers one of the best opportunities for river ecosystem restoration to support anadromous fish populations of all Central Valley tributaries. This proposal outlines the completion of a multi-level strategy for restoring 2.9 miles of floodplain and riverine aquatic habitats in two locations on lower Clear Creek (Figures 1 and 2).

Historic instream aggregate extraction in a 1.9 mile reach (Mined Reach) removed natural point bars, floodplains, and riparian vegetation, leaving a multi-channeled, unconfined floodway with numerous ecological problems. The remaining one mile (Reading Bar Reach) is covered with dredger tailings, which confine the channel and prevent a functional floodplain from forming. The Clear Creek Technical Work Group has identified the Mined Reach as a significant stressor to ecological health and anadromous fish production in lower Clear Creek, including spring-run, fall-run, and late fall-run chinook salmon (*Oncorhynchus tshawytscha*), and steelhead (*Oncorhynchus mykiss*) populations. Therefore, this reach is a top priority restoration activity as identified in both the ERPP and fisheries restoration element of the CRMP plan to restore river ecosystem health and robust salmonid populations.

During restoration a functional floodplain will be restored at Reading Bar Reach as dredger materials are removed for channel and floodplain reconstruction at Mined Reach. By implementing the project in this fashion two sites are restored simultaneously. (EP Objectives, Volume I, page 16-17) Objectives of the Lower Clear Creek Floodplain Restoration Project are:

- Reverse channel degradation caused by historic aggregate extraction in the Mined Reach by reconstructing a properly sized bankfull channel and floodplain;
- Restore the ability of the channel to route coarse sediment downstream and deposit fine sediment on floodplain surfaces;
- Restore native riparian vegetation on floodplain and terrace surfaces by focusing on species that provide canopy structure and removing competing exotic species;
- Reduce salmonid stranding and mortality in floodplain extraction pits;
- Provide improved habitat conditions for native fish and wildlife species including priority salmonid species of central concern to CALFED, CVPIA, and AFRP programs;

APPROACH/TASKS/SCHEDULE: This restoration project will restore floodway function and morphology by recreating a bankfull channel, functional floodplain, gravel supply, and native riparian vegetation. The project was logically divided into four phases (Figures 4-7), with restoration of an upstream borrow site conducted concurrently with all phases (Figure 3). Phase 1 (FY1998) was the inaugural phase that began reducing juvenile and adult stranding at Mined Reach and began the creation of a revegetated functional floodplain at Reading Bar Reach. Phase 2 (FY 1999-2000), the largest of the phases, is currently restoring functional floodplains and reducing salmonid stranding at Mined Reach by filling aggregate extraction pits with imported dredger tailings to elevations that inundate at contemporary bankfull discharge. Functional floodplains will be restored and revegetated at both reaches and wetland habitats shall be enhanced and created at Reading Bar Reach.

This proposal covers Phase 3 and 4. Phase 3 (FY 2000-2001) will focus on reconstructing and raising the bankfull channel above bedrock and hard-pan. Functional floodplains will again be created at both Reaches, and revegetated with native riparian species. Off-channel wetlands will be created and enhanced where appropriate at Reading Bar Reach. Phase 4 (FY 2000-2001) will restore flow into a section of historical channel that was diverted by instream aggregate activity. Excavated bars and floodplains will be restored and revegetated with native riparian vegetation, and functional floodplains and off-channel wetlands will continue to be created at Reading Bar Reach.

JUSTIFICATION FOR PROJECT AND FUNDING BY CALFED: Alteration of the lower Clear Creek floodway was primarily caused by gold dredging and instream aggregate extraction activities. Funding this project will rehabilitate the two sites where alteration has been most extensive, and when combined with the removal of Saeltzer Dam, will complete all large-scale channel rehabilitation needs on Clear Creek. The project promotes the CALFED goal of improving and increasing aquatic and terrestrial habitats and ecological functions by addressing several ecosystem elements identified in the ERPP. Those ecological processes include natural sediment supply, establishment of stream meanders and natural floodplain processes, and restoration of riparian and riverine aquatic habitats. The project will provide direct benefits to priority species including spring-run, fall-run, and late fall-run chinook salmon, and steelhead. In addition, the project will provide direct benefit to other species, and will eventually lead to the full ecological recovery of Clear Creek.

BUDGET COSTS AND THIRD PARTY IMPACTS: Total costs for Phase 3 and Phase 4 are $3,041,189 and $2,360,364, respectively, which includes a CVPIA cost share of $500,000 pending CALFED approval of this proposal. This project is being implemented under the auspices of the lower Clear Creek Technical Work Group and CRMP group, which should avoid any potential third party impacts. All phases, including restoration of the borrow site, are or will soon be on public land, which will further reduce any likelihood of third party impacts.

APPLICANT QUALIFICATIONS: This project will be implemented under the direction of the Western Shasta Resource Conservation District (RCD), which has been implementing wildlife and fisheries restoration projects, erosion control projects, fuels reduction projects, and coordinated resource planning projects in Shasta County since 1957. In 1997 and 1998, the RCD has implemented numerous projects on lower Clear Creek, including spawning gravel introductions, a watershed analysis, erosion control projects and Phase I of this project.

MONITORING AND DATA EVALUATION: An Ecological Monitoring Plan (EMP) is currently being developed to evaluate and monitor whether specific geomorphic, biological, and riparian restoration objectives are being met. Results of the EMP will guide future restoration efforts through an adaptive approach supported by the responsible agencies.

LOCAL SUPPORT/COORDINATION WITH OTHER PROGRAMS/COMPATIBILITY WITH CALFED OBJECTIVES: This restoration project will coordinate closely with several on-going local, State, and Federal programs, including the Lower Clear Creek Coordinated Resource Management Planning (CRMP) group, the Lower Clear Creek Technical Work Group, the CVPIA-AFRP, and Comprehensive Assessment & Monitoring Program (CAMP).

IV. PROJECT DESCRIPTION

a. Project Description and Approach.

1. Background.

The project proposal is to continue the rehabilitation of two reaches of Clear Creek by actively restoring a natural channel and floodplain morphology, and native riparian vegetation. The Lower Clear Creek Floodplain Restoration Project was developed to address these two degraded reaches of Clear Creek (Figures 1 and 2): the 1.9 mile reach with extensive instream aggregate extraction activities (Mined Reach) and the 1.0 mile reach containing dredger tailings to be used as borrow materials (Reading Bar Reach). At the Mined Reach, extensive in-channel and floodplain aggregate extraction removed natural channel confinement, creating multiple low-flow channels and large pits. The pits and lack of a defined channel, strands emigrating juvenile salmonids and discourages adult salmonid migration. The Reading Bar Reach was dredged for gold, and the tailings deposited onto the floodplain confine the channel. Additionally, construction of Saeltzer Dam in 1903 and Whiskeytown Dam in 1963 disrupted natural streamflow patterns and greatly reduced coarse sediment supply to the channel. Cumulatively, these land-use impacts have degraded the Clear Creek channel and floodplains, reduced the quantity and quality of salmonid habitat, increased stranding and migrational mortality, altered native riparian vegetation communities, sustained exotic vegetation, and has generally degraded the Clear Creek ecosystem. We recognize gravel extraction has occurred in this area for many decades, and it is therefore not feasible to get the area back to its original form. The project proposal focuses on restoring natural processes and function.

The degraded ecological conditions combined with reduced streamflow and sediment regimes prevent natural rehabilitation at these two sites. Restoring the natural form to the channel and floodplains will initiate and sustain natural sediment transport processes and channel migration, restore aquatic, wetland and riparian habitats, floodplain connectivity and riparian regenerative processes, and thus ecological function to the riverine ecosystem.

This project is consistent with all planning documents developed in response to legislatively mandated actions (S.B.1086, S.B.2261, and CVPIA) and supports the California Department of Fish & Game restoration plans for Clear Creek.

The project proposal fits together with other major investments in Clear Creek water, avoids the loss of gravel by reducing the sizes of pits, and ensures that when Saeltzer Dam is removed, the gravel behind it will become part of the bedload and not be totally swallowed by the pits.

2. Approach at Mined Reach.

Aggregate extraction pits within the contemporary floodway will be filled with dredger tailings extracted from Reading Bar Reach to restore the bankfull channel and floodplain morphology. Floodplain elevations will be designed to inundate at contemporary bankfull discharge. Heavy equipment, such as bulldozers, loaders, and dump trucks, will be used to fill off-channel ponds and construct a single-thread bankfull channel that is capable of transporting coarse bedload at bankfull discharge, allow channel migration, and encourage creation of alternate bars and floodplain surfaces

Once constructed, the project will correct several environmental problems which include the following:

- filled ponds will no longer harbor predator fish species, nor pose fish stranding problems for migrating juvenile and adult salmon and steelhead;
- newly created floodplains will be revegetated with native riparian species, providing additional habitat for amphibian and terrestrial wildlife species; and
- restoration of the channel will provide immediate spawning habitat for chinook salmon by introducing appropriately-sized spawning gravels.

3. Approach at Reading Bar Reach.

Restoration activities at Reading Bar will restore the floodplain surfaces, eliminate artificial channel confinement and create additional wetlands on upland areas located outside of the floodplain. A segment of riparian berm will be removed as a pilot evaluation of the potential for channel migration under contemporary flow regulation. Exotic vegetation will be removed and replaced with native riparian vegetation that will improve floodplain habitat. These restoration efforts will be coordinated with construction activities related to the removal of dredger materials needed for restoration of the Mined Reach downstream. The borrow site may also provide a source of gravel material for introduction to the channel as a part of a long term gravel management plan.

4. Tasks and Schedule.

This project has been divided into four phases for implementation. Phase 1, completed in October 1998, initiated implementation, began removal of borrow material from the Reading Bar Reach, and reduced salmonid stranding at the Mined Reach pond complex. Phase 2, currently in progress, constitutes the majority of the earthwork, transporting borrow material from the Reading Bar Reach to fill extraction pits at the Mined Reach and restoring floodplain morphology. Restored floodplains are being revegetated with native riparian species. Phase 3 will restore the channel planform location, bed elevation, and a two-stage channel geometry (bankfull channel and floodplain). Phase 4 is located at the downstream end of Mined Reach, and will move a portion of the channel back into its pre-mining location and fill the bedrock diversion channel back to floodplain elevation. Restored floodplains will also be revegetated as in other phases. All phases use materials excavated from Reading Bar Reach. As materials are extracted from the borrow site, floodplains will be restored and revegetated near the channel, and off-channel wetlands will be enhanced and created to improve upland habitat conditions.

b. Proposed Scope of Work: Tasks/Products/Timelines

PHASE 3. (CALFED Funding request: $2,541,189. CVPIA will contribute $500,000 additional funds as a cost share pending CALFED approval of this proposal.)

Phase 3 (Figure 6) will reconstruct the bankfull channel from the upstream project boundary to below the south bank pond complex. The channel planform will be realigned and re-sized at specific locations and the channel-bed elevation raised off the hardpan clay substrate by introducing cleaned and sorted gravel. Fill material will primarily be acquired on-site from excavated areas, or removed from Reading Bar Reach. Newly created floodplains adjacent to relocated channels will be revegetated with native riparian species. Phase 3 restoration activities are timed to occur after the completion of Phase 2 (estimated fall of 2000), to incorporate potential changes in coarse sediment loading into the design.

Phase 3 tasks include:

- Restore natural channel morphology by re-sizing and realigning bankfull channel planform, constructing two-stage channel (bankfull channel and floodplain), and eliminating unconfined, multi-channel sections;
- Introduce cleaned and sorted gravels into the bankfull channel to raise channel-bed elevation off clay hard-pan and provide immediate spawning and rearing habitat for salmonids;
- Restore native riparian vegetation to floodplains;
- Remove exotic vegetation from Mined Reach and Reading Bar Reach; and
- Recreate functional floodplains along the channel and create wetland habitats in upland areas at Reading Bar Reach.

PHASE 4. (CALFED Funding request: $2,360,364.)
Phase 4 (Figure 7) completes the restoration of this degraded section of the channel. It will occur in the work season of 2001 at the downstream end of Mined Reach upon completion of Phase 3, and will restore flow to the historical channel that was diverted during aggregate extraction. The historic channel meandered in a wide arch to the north of a broad floodplain. The diversion channel along the south bluff is deep, narrow, swift, and confined by bedrock, providing little or no salmonid habitat. This channel will be filled and converted to floodplain. Phase 4 tasks include:

- Improve salmonid habitat by re-watering 2,500 ft of historical alluvial channel;
- Fill diverted channel and regrade floodplains to appropriate geomorphic elevations;
- Revegetate restored floodplains with native riparian vegetation;
- Remove exotic vegetation from Mined Reach and the Reading Bar Reach; and
- Recreate functional floodplains along the channel and create wetland habitats in upland areas at Reading Bar Reach.

c. Location and Geographic Boundaries

Clear Creek originates in the Trinity Mountains and flows into Whiskeytown Lake (Elevation 1,210 ft) 11 miles west of Redding (Figure 1) in Shasta County. Lower Clear Creek flows southeast from Whiskeytown Lake for approximately 16 miles, and joins the Sacramento River near Redding (Figure 2). The total drainage area of Clear Creek upstream of the gaging station near Igo, CA is 228 mi^2. Clear Creek is part of the Trinity River Division of the Central Valley Project, and streamflows have been regulated by Whiskeytown Dam since 1963. Transbasin diversions occur from the Trinity River Basin through Whiskeytown Lake to the Sacramento River. The Lower Clear Creek watershed consists of approximately 42% public-owned land, of which 92% is administered by the National Park Service and the remaining administered by BLM and CDFG.

V. ECOLOGICAL/BIOLOGICAL BENEFITS

The project will improve the ecological health of Clear Creek by initiating and sustaining sediment supply and transport capability, restoring channel migration ability, and restoring floodplain connectivity. These processes are critical to CALFED priority species, including spring, fall, and late-fall chinook salmon, and steelhead populations. Overall salmonid production should increase as a result of this project. The proposal is a long-term solution to large-scale problems in the project

reaches, which will minimize future involvement. Additionally, the project is cost effective by coupling Mined Reach channel and floodplain restoration with the Reading borrow site rehabilitation.

The Lower Clear Creek Technical Work Group developed the following project objectives and hypotheses from which monitoring and evaluation efforts will focus:

The objective is to improve salmonid rearing and spawning habitat within the project reach.

- Implementation of channel restoration project will increase the quality and quantity of salmonid (chinook salmon and steelhead trout) habitat within the project study area.

The objective is to reduce juvenile salmonid stranding mortalities.

- Implementation of channel restoration project will decrease stranding induced mortality of adult and juvenile salmonids within the project reach.

The objective is to improve adult passage conditions through the project reach upstream.

- Implementation of channel restoration project will improve passage conditions for adult salmon and steelhead trout through the project reach upstream.

The objective is to restore native riparian vegetation on newly created floodplain surfaces.

- The revegetation phase of channel restoration activities will increase the quantity and diversity of native riparian vegetation on reconstructed floodplain surfaces.

The objective is to create favorable physical conditions for regeneration of native riparian species on restored floodplains.

- Implementation of channel and floodplain restoration activities, combined with favorable hydrologic conditions during seed dispersal period, will increase natural regeneration of native riparian species on constructed floodplain surfaces.

The objective is to assess the effects of restoration activities on riparian associated wildlife communities.

- Salmonid restoration activities, which include improved channel-to-floodplain connectivity and restoration of native riparian vegetation will positively influence riparian associated wildlife communities (aviafauna, herpetofauna, and mammals).

The objective is to recreate a properly sized alluvial channel morphology.

- Coarse sediment will be mobilized by design bankfull flow (the bed moves).
- As the bankfull channel migrates or avulse during flows approaching bankfull discharge and larger (the channel migrates).
- Flow exceeding design bankfull discharge will begin inundating constructed floodplains..
- Flows exceeding design bankfull discharge will begin depositing fine sediments (sand and silt) on constructed floodplains.

The objective is to raise channel above bedrock hardpan, increasing alluvial storage within the bankfull channel.

- Subsequent high flows and sediment trapping by Saeltzer Dam will cause bankfull channel to begin incision.

The objective is to recreate a properly sized alluvial channel morphology with adequate coarse sediment supply.

- As the bankfull channel migrates, coarse and fine sediments will deposit on the inside of meander bend, creating a new functional floodplain.

Specific project benefits include: (1) reduced juvenile and adult stranding mortality; (2) increased spawning habitat; (3) improved geomorphic processes that create and maintain habitat for salmonids and other aquatic species; (4) predator reduction in off-channel ponds; (5) improved channel-to-floodplain connectivity, improving nutrient and fine sediment cycling throughout the floodway, (6) increased native riparian vegetation, particularly canopy species such as cottonwood, which is important for avian habitat; (7) reduced exotic vegetation through active removal and replacement with native species, and (8) maintained wetland values.

VI. TECHNICAL FEASIBILITY AND TIMING

a. Background.

Lower Clear Creek has an extensive history of land-use impacts, including gold and aggregate mining, timber harvest, and construction of dams for water and power generation. Mining removed large volumes of aggregate from the channel and floodplains, and deposited the tailings on floodplain and terrace surfaces. The effects of aggregate extraction include: 1) substantial modification of planform and cross-sectional dimensions, resulting in sections of unstable, braided channels; 2) large in-channel and floodplain pits that entrap juvenile salmonids and support populations of predator fish; 3) permanent channel diversion into bedrock bypass channels; 4) impedance of bedload transport and spawning gravel supply; and 5) reduction in spawning riffle area.

The dams have also interrupted coarse sediment supply to the channel, particularly below Whiskeytown Dam and Saeltzer Dam. Saeltzer Dam has filled with sediment and is scheduled for removal in 1999 (feasibility study funded by CALFED Category III FY 1997). The supply and instream storage of coarse sediment below Whiskeytown Dam has decreased, and remaining deposits have coarsened. These impacts have reduced the quantity and quality of anadromous salmonid habitat. Additionally, instream aggregate extraction has physically removed large quantities of aggregate from the project reach, further decreasing instream coarse sediment supply to the point where the channel bed is resting on bedrock or clay hard-pan. This transition from alluvial channel to bedrock channel has reduced the quantity of salmonid spawning gravel deposits, which may have lowered the potential salmonid production of lower Clear Creek.

Clear Creek historically supported populations of spring-run, fall-run and late fall-run chinook salmon and steelhead. Spring-run chinook no longer reproduce naturally in Clear Creek, likely a result of habitat destruction from mining and blocked access by Whiskeytown and Saeltzer Dams. Clear Creek is now managed for fall-run and late fall-run chinook salmon, and steelhead. Fall-run populations have fluctuated widely since 1951, from an estimated 10,000 adults in 1963 to fewer than 100 fish in 1978. Runs have been strong in the last three years, with escapements between 5,900 and 9,000 adult fish (ERPP 1998). Escapement numbers for late fall-run chinook are not

available because they spawn in winter months when spawning surveys are prohibitive. Steelhead populations are limited by lack of access to spawning and rearing habitats in the upper watershed above the dams, and by high instream temperatures during summer. Removal of Saeltzer Dam will allow access to an additional 10 miles of oversummering habitat suitable for sustaining spring-run chinook and steelhead.

b. Technical Justification.

The Clear Creek Floodplain Restoration Project is a multi-agency, cooperative effort to restore the lower Clear Creek floodway through commencement of restoration actions at both Mined Reach and Reading Bar Reach. Many factors will contribute to the success of this restoration opportunity, including:

- a well-organized Lower Clear Creek CRMP, represented by private landowners, resource agencies, public participants, and other stakeholders;
- a developing broad-scoped CRMP plan;
- public ownership of virtually the entire floodway downstream of Whiskeytown Dam by US Bureau of Reclamation (USBR), US Bureau of Land Management (BLM), California Department of Fish and Game (CDFG), and the National Park Service (NPS);
- publicly owned dredger tailings on-site, which can be removed at low cost and used for short-term construction material and long-term gravel management;
- potential in the near future for improving the natural variability and magnitude of streamflows downstream of Whiskeytown Dam;
- CVPIA cost-sharing funds specifically allocated for Clear Creek restoration;
- improving fall-run chinook salmon runs, with excellent potential to meet CVPIA and CALFED production targets; and
- pending removal of Saeltzer Dam, Clear Creek is uniquely suited to support spring-run, fall-run, and late fall-run chinook salmon, as well as steelhead populations because of its ability to provide cool temperatures in the upper reach, and adequate flows in fall (ERPP VOL. II p.170, 1998).

The project is consistent with CALFED goals of improving and increasing aquatic and terrestrial habitats and improving ecological processes, and addresses several CALFED ecosystem elements and stressors described in the ERPP. These elements include natural sediment supply, stream meander, natural floodplain and floodplain processes, Central Valley stream temperatures, riparian and riverine aquatic habitats, seasonal wetlands, chinook salmon, and steelhead trout. In addition, the ERPP restoration vision for the Clear Creek ecological unit identifies habitat restoration as an integral step toward improving chinook salmon and steelhead production in Clear Creek (ERPP Vol. II p. 170)

VII. MONITORING AND DATA EVALUATION

a. Monitoring.

The lower Clear Creek Technical Work Group recognizes the importance of monitoring, assessing both site-specific restoration projects and river-wide responses to habitat rehabilitation. Project specific monitoring will dovetail with ongoing documentation of salmonid stranding, salmonid

habitat quality, and salmonid spawning habitat utilization. This project will include a detailed project-scale monitoring plan to evaluate whether geomorphic, salmonid, and riparian project objectives are realized. Immediately after each construction phase is completed, as-built surveys will be conducted, and geomorphic, salmonid, and riparian monitoring will be initiated. Monitoring is scheduled to occur for five years after construction, with certain aspects of geomorphic monitoring (i.e., cross section surveys, bed mobility experiments, design dimension verification) dependent upon a high flow threshold (it makes no sense to monitor certain geomorphic parameters during low flow years). Monitoring methods, data format, and data evaluation will be consistent with CAMP and CMARP protocols.

b. Implementability.

The Clear Creek Technical Work Group has developed this project scope and phasing, and will work with the Western Shasta RCD to direct implementation. Much of the borrow material required for restoration is readily available on public lands at Redding Bar Reach which is managed by BLM. The BLM is also negotiating the purchase of additional lands and mineral rights within Reading Bar Reach, which will further enhance restoration actions.

VIII. LOCAL INVOLVEMENT

This project has been presented by the Lower Clear Creek Restoration Team to the Lower Clear Creek CRMP group and Horsetown Preserve. Both organizations provide a mechanism for private stakeholder participation and they each fully support this proposal. The Lower Clear Creek Restoration Team is comprised of representatives of various federal, state and local resource agencies, as follows:

Bureau of Reclamation
U.S. Fish & Wildlife Service
National Marine Fisheries Service
Bureau of Land Management
National Park Service
Natural Resources Conservation Service
California Department of Fish & Game
California Department of Water Resources
Western Shasta Resource Conservation District

Representatives from water users and hydro-power users, and private resource consultants also contribute to the Team to assist in development of restoration activities.

IX. COSTS AND IMPLEMENTATION SCHEDULE

a. Budget costs

The estimated total cost of the project not already funded (Phases 3 and 4) is $5,401,553 of which $4,901,553 are requested from CALFED and $500,000 has been committed by the U.S. Bureau of Reclamation pending CVPIA funding. The proposed budget breakdown for Phases 3 and 4 is provided in Table 1, with a quarterly breakdown on Table 1A.

	DIRECT SALARY AND BENEFITS	SERVICE CONTRACTS	MATERIAL AND ACQUISITION COSTS	MISCELLANEOUS AND OTHER DIRECT COSTS	OVERHEAD AND INDIRECT COSTS	TOTAL COSTS
Phase 3						
1. Design stakeout and surveys	$0	$60,000	$0	$0		$60,000
2.Construction	$0	$0	$1,557,610	$0		$1,557,610
3. Construction supervision	$35,000	$18,000	$0	$5,000		$58,000
4. Riparian Revegetation	$100,000	$120,000	$50,000	$5,000		$275,000
5. Geomorphic, wetland, and riperian monitoring (3 years)	$25,000	$70,000	$0	$5,000		$100,000
6. Contingency	$0	$0	$0	$528,902		$528,902
7. Project management	$60,000	$0	$0	$5,000		$65,000
8. Indirect costs @ 15% of Direct costs	$0	$0	$0	$0	$396,677	$396,677
CVPIA Cost-share(if funded)						-$500,000
Phase 3 Total:	**$220,000**	**$268,000**	**$1,607,610**	**$548,902**	**$396,677**	**$2,541,189**
Phase 4						
1. Design stakeout and surveys	$0	$50,000	$0	$0		$50,000
2.Construction	$0	$0	$1,282,990	$0		$1,282,990
3. Construction supervision	$25,000	$14,000	$0	$5,000		$44,000
4. Riparian Revegetation	$60,000	$45,000	$15,000	$5,000		$125,000
5. Geomorphic, wetland, and riperian monitoring (3 years)	$20,000	$80,000	$0	$0		$100,000
6. Contingency	$0	$0	$0	$410,500		$410,500
7. Project management	$35,000	$0	$0	$5,000		$40,000
8. Indirect costs @ 15% of Direct costs	$0	$0	$0	$0	$307,874	$307,874
Phase 4 Total:	**$140,000**	**$189,000**	**$1,297,990**	**$425,500**	**$307,874**	**$2,360,364**
GRAND TOTAL:	**$360,000**	**$457,000**	**$2,905,600**	**$974,402**	**$704,551**	**$4,901,553**

Table 1. Projected Budget for Phases 3 and 4.

TASK	QUARTERLY BUDGET JAN-MAR 00	QUARTERLY BUDGET APR-JUN 00	QUARTERLY BUDGET JUL-SEP 00	QUARTERLY BUDGET OCT-DEC 00	QUARTERLY BUDGET JAN-MAR 01	QUARTERLY BUDGET APR-JUN 01	QUARTERLY BUDGET JUL-SEP 01	QUARTERLY BUDGET OCT-DEC 01	QUARTERLY BUDGET JAN-MAR 02	QUARTERLY BUDGET APR JUN 02	QUARTERLY BUDGET JUL-SEP 02	QUARTERLY BUDGET OCT-DEC 02	TOTAL COSTS
Phase 3													
TASK 1	$20,000	$20,000	$20,000										
TASK 2			$1,000,000	$557,610									$60,000
TASK 3			$29,000	$29,000									$1,557,610
TASK 4				$200,000									$58,000
TASK 5								$75,000					$275,000
TASK 6						$25,000		$25,000		$25,000		$25,000	$100,000
TASK 7				$250,000				$278,902					$528,902
TASK 8	$5,000	$5,000	$10,000	$10,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$2,500	$2,500	$65,000
CVFIA Cost-share(if funded)	$3,750	$3,750	$156,850	$156,992	$750	$4,500	$750	$57,585	$750	$4,500	$375	$4,125	$396,677
Phase 3 Total:			-$250,000	-$250,000									-$500,000
	$28,750	**$28,750**	**$967,850**	**$953,602**	**$5,750**	**$34,500**	**$5,750**	**$441,487**	**$5,750**	**$34,500**	**$2,875**	**$31,625**	**$2,541,189**

TASK	QUARTERLY BUDGET JAN-MAR 01	QUARTERLY BUDGET APR-JUN 01	QUARTERLY BUDGET JUL-SEP 01	QUARTERLY BUDGET OCT DEC 01	QUARTERLY BUDGET JAN-MAR 02	QUARTERLY BUDGET APR-JUN 02	QUARTERLY BUDGET JUL-SEP 02	QUARTERLY BUDGET OCT-DEC 02	QUARTERLY BUDGET JAN-MAR 03	QUARTERLY BUDGET APR-JUN 03	QUARTERLY BUDGET JUL-SEP 03	QUARTERLY BUDGET OCT DEC 03	TOTAL COSTS
Phase 4													
TASK 1	$20,000	$20,000	$10,000										
TASK 2			$1,000,000	$282,990									$50,000
TASK 3			$22,000	$22,000									$1,282,990
TASK 4				$100,000									$44,000
TASK 5								$25,000					$125,000
TASK 6						$25,000		$25,000		$25,000		$25,000	$100,000
TASK 7				$200,000				$210,500					$410,500
TASK 8	$2,500	$2,500	$5,000	$5,000	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$5,000	$5,000	$40,000
Phase 4 Total:	$3,375	$3,375	$150,550	$101,499	$375	$4,125	$375	$39,450	$375	$4,125	$750	$4,500	$307,874
	$25,875	**$25,875**	**$1,192,550**	**$701,489**	**$2,875**	**$31,625**	**$2,875**	**$302,450**	**$2,875**	**$31,625**	**$5,750**	**$34,500**	**$2,360,364**

Table 1a. Quarterly Budget for Phases 3 and 4.

b. Schedule milestones

Each phase of this project is scheduled to be implemented from June to October each summer, although some overlap is expected. Phase 1 was implemented in 1998; Phase 2 is being implemented in 1999-2000; Phase 3 in 2000, and Phase 4 in 2001. Environmental documentation and permits, designs, field stakeout, construction bidding, and field staking need to be performed approximately 6 to 12 months prior to each construction phase. Immediately after each construction phase is completed, as-built surveys will be conducted and geomorphic, salmonid, and riparian monitoring initiated. Monitoring is scheduled to continue five years after construction, with certain aspects of geomorphic monitoring (i.e., cross section surveys, bed mobility experiments, design dimension verification) dependent upon a high flow threshold (it makes no sense to monitor certain geomorphic parameters during low flow years). The proposed implementation schedule is summarized in Table 2.

c. Third-party impacts

This project is being implemented under the auspices of the lower Clear Creek Technical Work Group and CRMP group, which should avoid any potential negative third-party impacts. All phases, including restoration of the borrow site, will be conducted on land presently, or soon to be, under public ownership, which will further reduce any likelihood of third-party impacts. One of the rare opportunities in lower Clear Creek is public ownership of most of the floodway and little to no infrastructure constraints (homes, bridges) at risk along the corridor, allowing natural dynamic river processes to be encouraged. This project will provide several positive third-party impacts, including local employment and environmental education opportunities, partnerships with local environmental groups, and economic benefits for tourism and commercial fishing industries due to increased fish populations.

X. COST SHARING

This project proposal is for Phase 3 and 4 of a 4-phase project. A significant level of cost sharing has occurred to date and will continue through the end of the total project. It is possible there will be some excess Phase 2 funds due alterations in design, which could be applied to Phases 3 and 4.

Agency	For	Amount	
BLM	Phase 1	S 30,000	
	Phases 2, 3, 4	279,000	
CVPIA	Phase 1	340,000	
	Phases 2, 3, 4	520,000	
	Phase 3	500,000	(pending CALFED funding of Phases 3 and 4)
CALFED	Phase 2	$3,559,596	

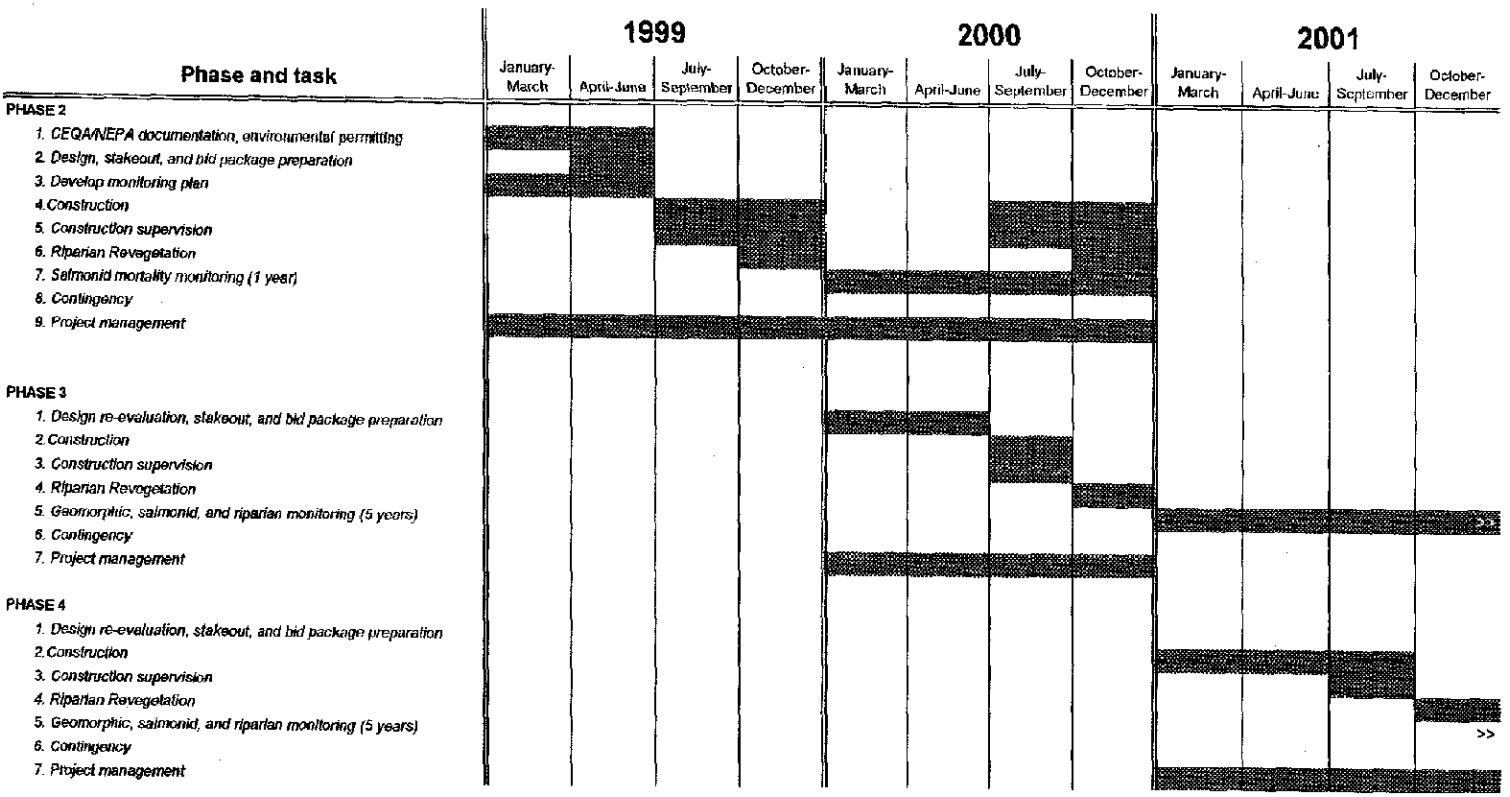


Table 2. Proposed project scheduling for Phases 2 through 4.

XI. APPLICANT QUALIFICATIONS

a. The Organization.

The Western Shasta Resource Conservation District has been implementing wildlife and fisheries restoration projects, erosion control projects, fuels reduction projects, and coordinated resource planning projects in Shasta County since 1957. In 1997 and 1998, the RCD implemented numerous projects on lower Clear Creek, including spawning gravel introduction, a watershed analysis, and erosion control projects.

The RCD will coordinate the project with the lower Clear Creek CRMP group and the lower Clear Creek Technical Group. The Technical work group is composed of federal, state and local resource agencies and will provide technical guidance and input on restoration designs for this project.

The CRMP is composed of private landowners, stakeholder groups, and agency representatives. The CRMP will serve to give feedback from landowners and the public on restoration designs for this project.

b. Key Staff.

Jeff Souza, RCD Projects Manager for the past four years, has managed over two dozen projects during that time dealing with fisheries and wildlife restoration, erosion control, fuels reduction and coordinated resource planning. He has a B.S. in Environmental Biology and a M.S. in Agriculture and has over ten years in experience in the field of resource management and restoration.

Mary Schroeder, RCD Administrative Manager, has over 20-years of industry management experience, including grant management, budgeting, planning, supervision, and contract negotiation. She has a B.S. in Forest Industry Management from The Ohio State University.

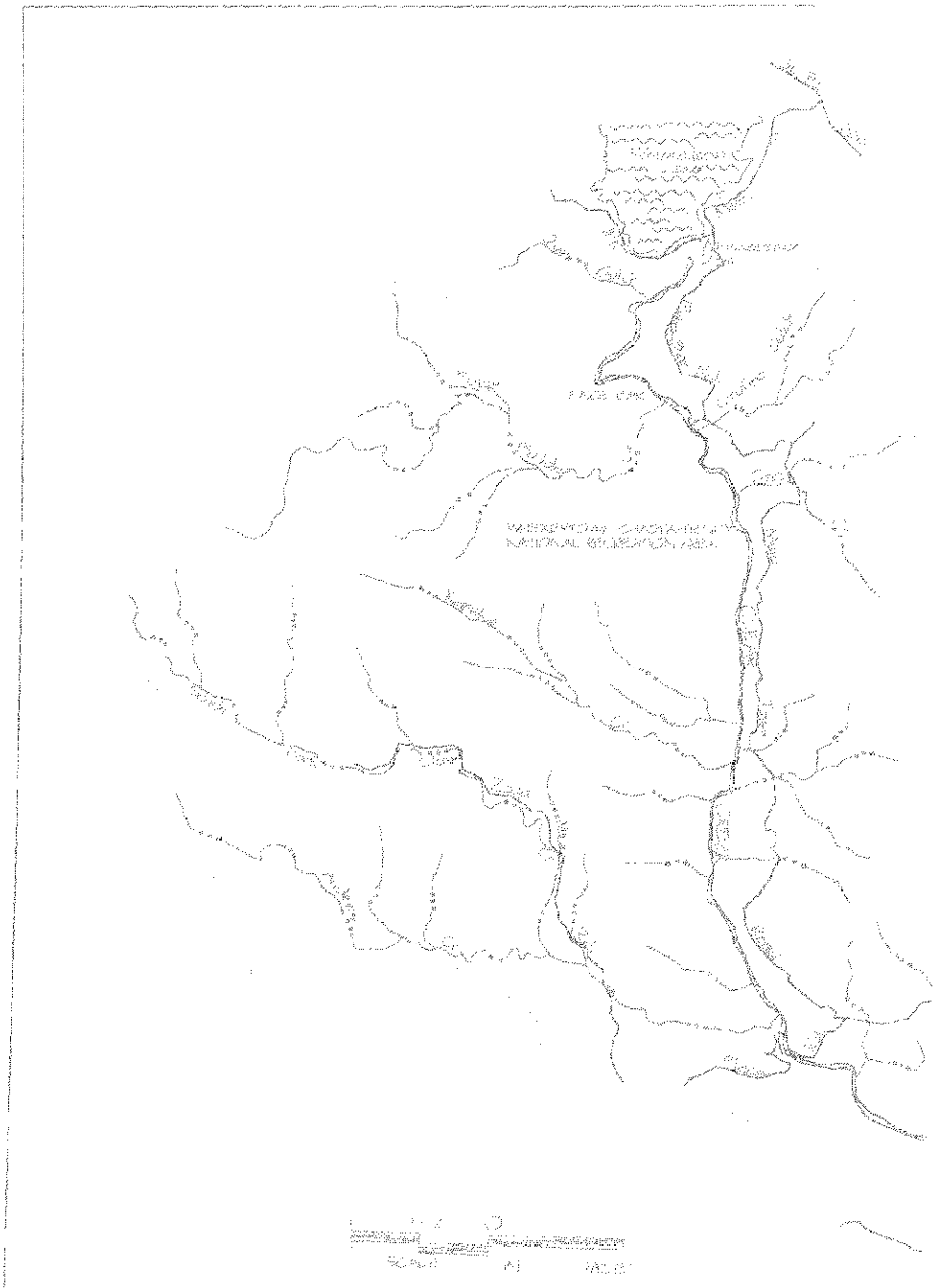
Several technical aspects of the project will be accomplished through service contracts with qualified consulting firms. Project design and construction supervision assistance is being conducted by McBain & Trush of Arcata, California. Environmental permitting is being done by North State Resources of Redding, California. All contractors will be selected through a competitive bidding process. Construction contracts will require use of the California Public Construction Cost Accounting Procedures.

No potential conflicts of interest are anticipated.

XII. COMPLIANCE WITH TERMS AND CONDITIONS

The Western Shasta Resource Conservation District currently has SF 424 series forms on file for several projects administered by the USDI-Bureau of Reclamation. No deviations from the standard terms and conditions are anticipated.

A completed DI-2010 is attached.



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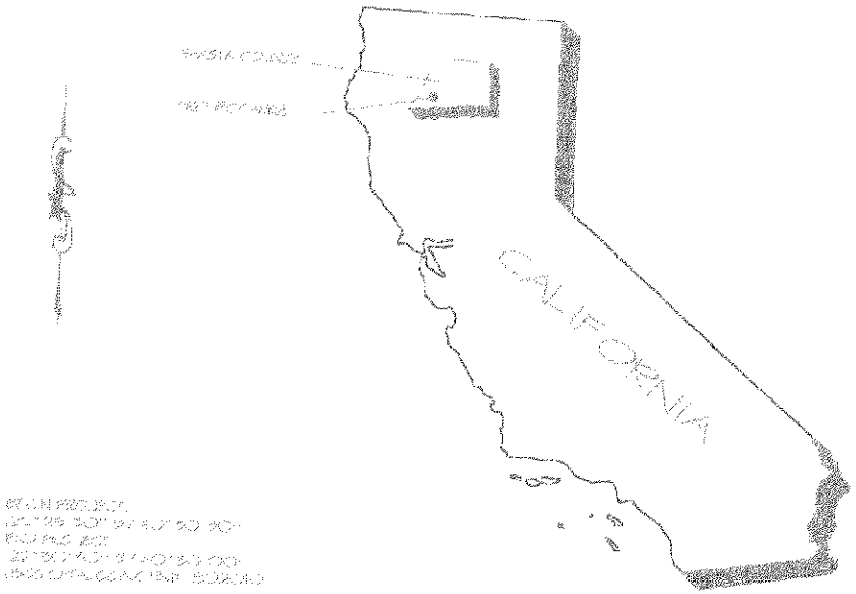

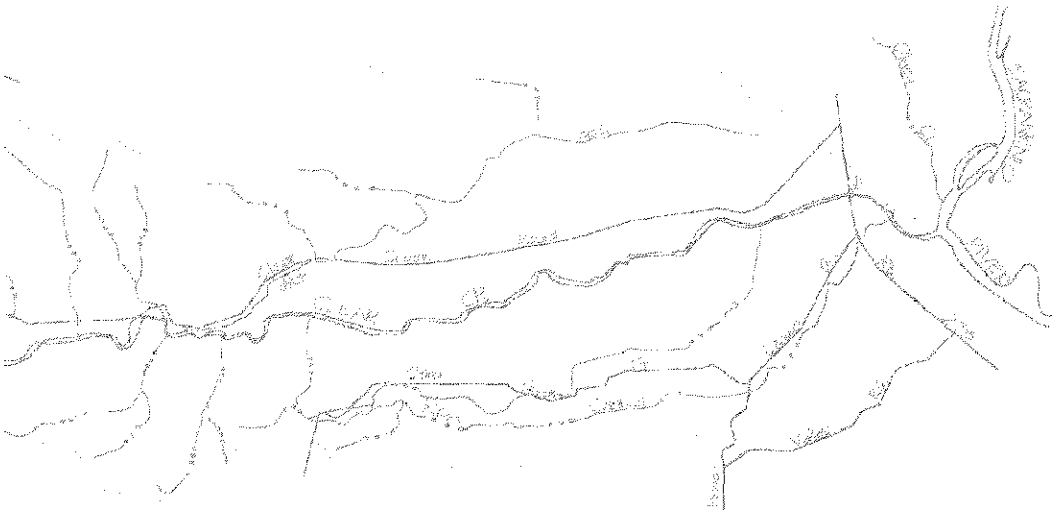

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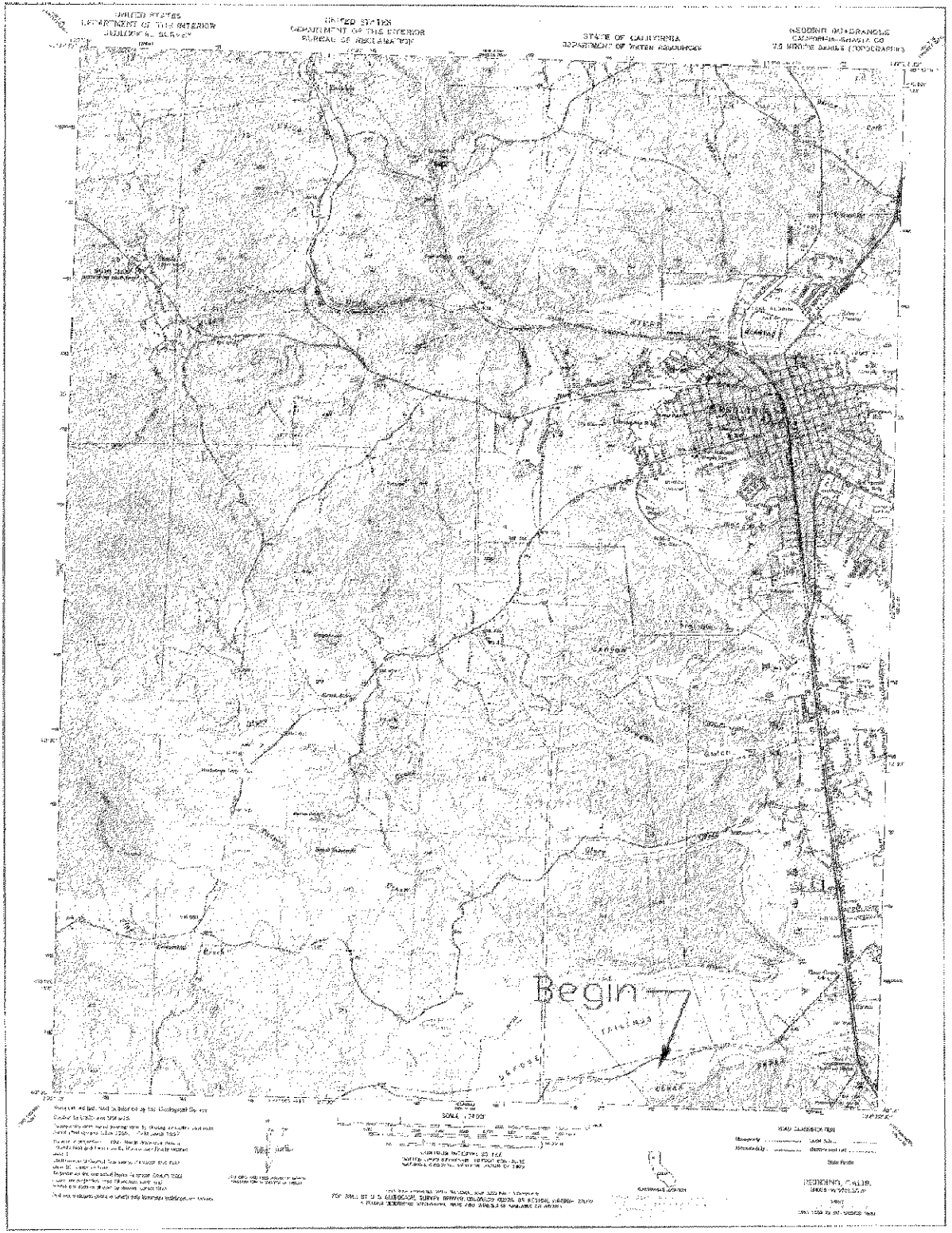

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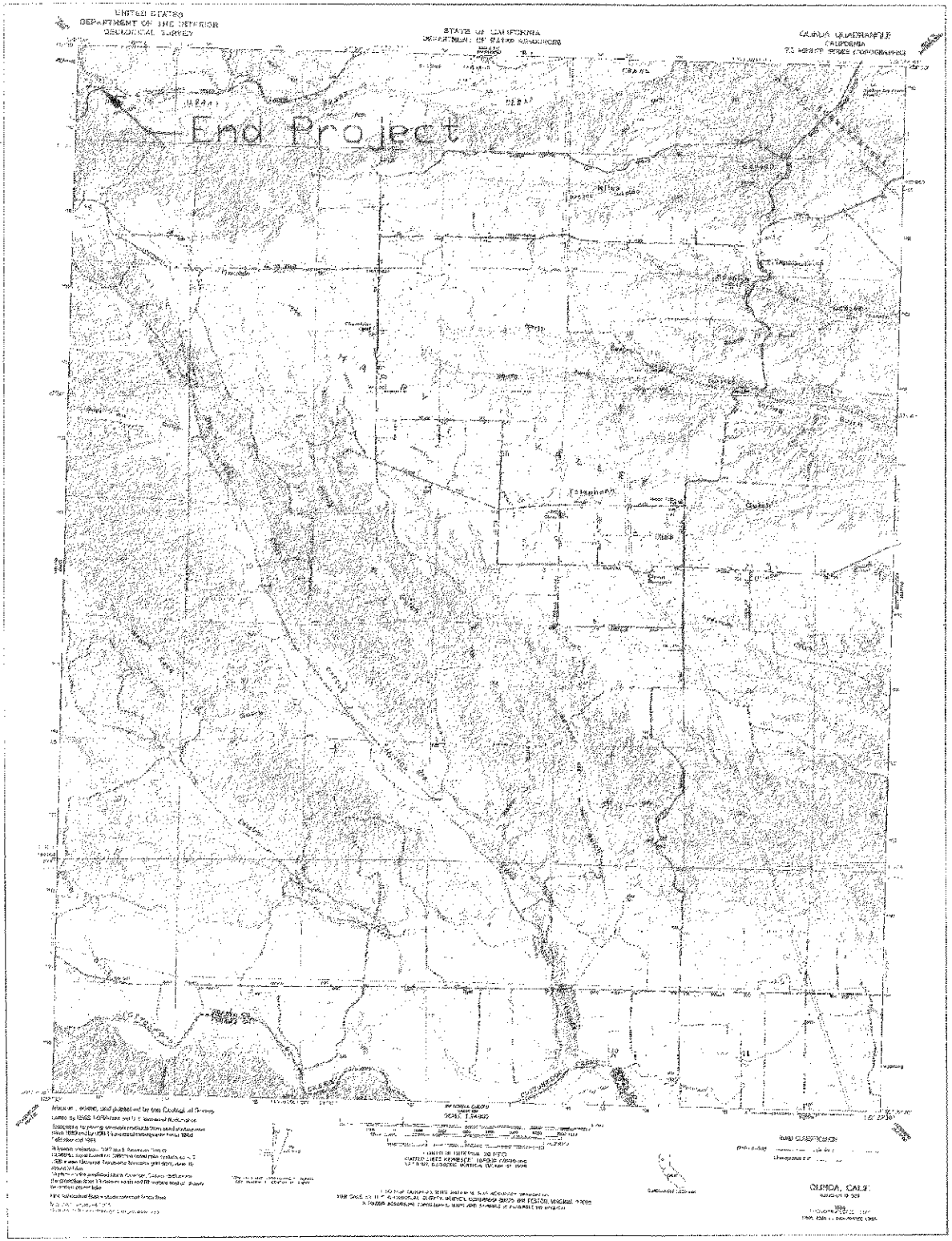

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I-014797

U.S. Department of the Interior

Certifications Regarding Debarment, Suspension and Other Responsibility Matters, Drug-Free Workplace Requirements and Lobbying

Persons signing this form should refer to the regulations referenced below for complete instructions:

Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions - The prospective primary participant further agrees by submitting this proposal that it will include the clause titled, "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions. See below for language to be used; use this form for certification and sign; or use Department of the Interior Form 1954 (DI-1954). (See Appendix A of Subpart D of 43 CFR Part 12.)

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions - (See Appendix B of Subpart D of 43 CFR Part 12.)

Certification Regarding Drug-Free Workplace Requirements - Alternate I. (Grantees Other Than Individuals) and Alternate II. (Grantees Who are Individuals) - (See Appendix C of Subpart D of 43 CFR Part 12)

Signature on this form provides for compliance with certification requirements under 43 CFR Parts 12 and 18. The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of the Interior determines to award the covered transaction, grant, cooperative agreement or loan.

PART A: Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions

---

CHECK__IF THIS CERTIFICATION IS FOR A PRIMARY COVERED TRANSACTION AND IS APPLICABLE.

(1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and

(d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

(2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

PART B: Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions

---

CHECK__IF THIS CERTIFICATION IS FOR A LOWER TIER COVERED TRANSACTION AND IS APPLICABLE.

(1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

(2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

DI-2010
March 1995
(This form consolidates DI-1953, DI-1954, DI-1955, DI-1956 and DI-1957)

PART C: Certification Regarding Drug-Free Workplace Requirements

CHECK X IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS NOT AN INDIVIDUAL.

Alternate I. (Grantees Other Than Individuals)

A. The grantee certifies that it will or continue to provide a drug-free workplace by:

(a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;

(b) Establishing an ongoing drug-free awareness program to inform employees about--
(1) The dangers of drug abuse in the workplace;
(2) The grantee's policy of maintaining a drug-free workplace;
(3) Any available drug counseling, rehabilitation, and employee assistance programs; and
(4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;

(c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);

(d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will --
(1) Abide by the terms of the statement; and
(2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;

(e) Notifying the agency in writing, within ten calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to every grant officer on whose grant activity the convicted employee was working, unless the Federal agency has designated a central point for the receipt of such notices. Notice shall include the identification numbers(s) of each affected grant;

(f) Taking one of the following actions, within 30 calendar days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted --
(1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or
(2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;

(g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a) (b), (c), (d), (e) and (f).

B. The grantee may insert in the space provided below the site(s for the performance of work done in connection with the specific grant:

Place of Performance (Street address, city, county, state, zip code)

3179 Bechelli Lane, Suite 110

Redding, CA 96002, Shasta County

Check___if there are workplaces on file that are not identified here.

PART D: Certification Regarding Drug-Free Workplace Requirements

CHECK__IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS AN INDIVIDUAL.

Alternate II. (Grantees Who Are Individuals)

(a) The grantee certifies that, as a condition of the grant, he or she will not engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in conducting any activity with the grant;

(b) If convicted of a criminal drug offense resulting from a violation occurring during the conduct of any grant activity, he or she will report the conviction, in writing, within 10 calendar days of the conviction, to the grant officer or other designee, unless the Federal agency designates a central point for the receipt of such notices. When notice is made to such a central point, it shall include the identification number(s) of each affected grant

I-014799

PART E: **Certification Regarding Lobbying**
Certification for Contracts, Grants, Loans, and Cooperative Agreements

CHECK__ IF CERTIFICATION IS FOR THE AWARD OF ANY OF THE FOLLOWING AND THE AMOUNT EXCEEDS $100,000: A FEDERAL GRANT OR COOPERATIVE AGREEMENT; SUBCONTRACT, OR SUBGRANT UNDER THE GRANT OR COOPERATIVE AGREEMENT.

CHECK__ IF CERTIFICATION IS FOR THE AWARD OF A FEDERAL LOAN EXCEEDING THE AMOUNT OF $150,000, OR A SUBGRANT OR SUBCONTRACT EXCEEDING $100,000, UNDER THE LOAN.

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

As the authorized certifying official, I hereby certify that the above specified certifications are true.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL Jeff Souza

Jeff Souza, Project Manager
TYPED NAME AND TITLE

DATE April 15, 1999

I -014800

I-014800

WESTERN SHASTA
RESOURCE CONSERVATION
DISTRICT

3179 Bechelli Lane, Suite #110, Redding, CA 96002-2041 - Phone: (916) 246-5299 Fax: (916) 246-5164

mailed to Cook and Hawes 4/1/99

April 1, 1999

Mr. James Cook, Director
Shasta County Planning Department
1855 Placer Street, Suite 103
Redding, CA 96001

Re. Notification of Intent to Apply for a CALFED Grant in the Clear Creek Watershed

Dear Mr. Cook:

The Western Shasta Resource Conservation District (RCD) intends to submit two proposals to CALFED. As part of the application process, the district is obligated to notify the Board of Supervisors and the County Planning Department of the RCD's intent to apply for CALFED grants.

The first proposal deals with stream channel restoration in Clear Creek below Saeltzer Dam. The RCD plans to complete Phases 3 and 4 of a 4 phase project to reverse stream channel degradation caused by historic gold and aggregate mining. Phase 1 was completed in 1998 with Central Valley Project Improvement Act funds from the USDI. – Bureau of Reclamation. Phase 2 was funded by CALFED in 1998 and will be implemented in 1999 and 2000.

The second proposal deals with coordinating work within the watershed. The RCD proposes to hire a part-time watershed coordinator, arrange for public meetings, plan a fuels/fire strategy, inventory and remediate sources of erosion and sedimentation, and evaluate the transportation system in Clear Creek.

Public outreach is an important component of the proposal, and the RCD intends to cooperatively work with the public, willing private landowners, and government agencies to perform this conservation work in Clear Creek.

If you have any questions about the proposals, please contact our Projects Manager, Jeff Souza, at (530) 246-5299 ext. 104. Thank you.

Sincerely,

Tom Engstrom
Vice President

cc: Glenn Hawes, Shasta County Board of Supervisors

c:/rcd/projects/clearcrk/lowerchannel/intentltr

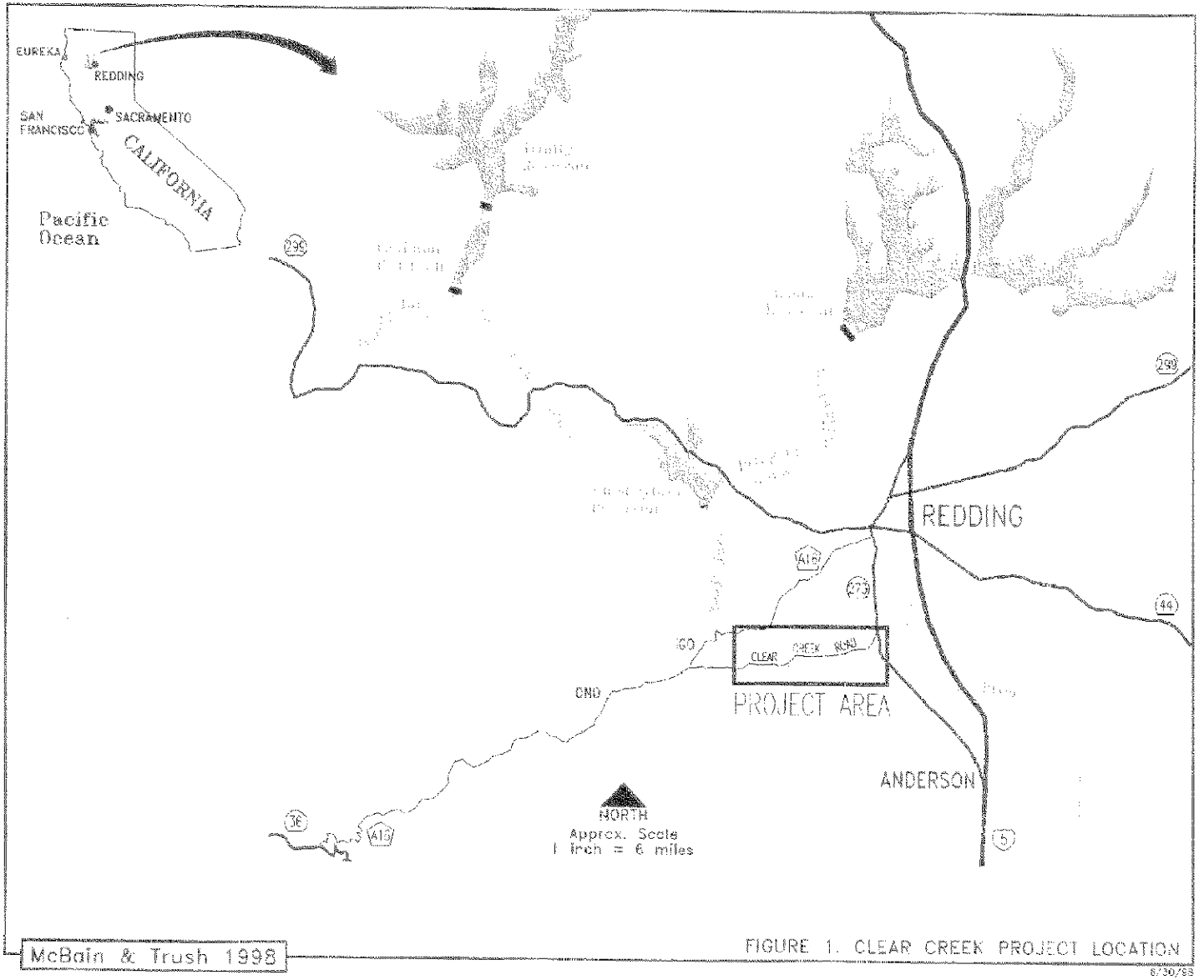

FIGURE 1. CLEAR CREEK PROJECT LOCATION

8/30/98

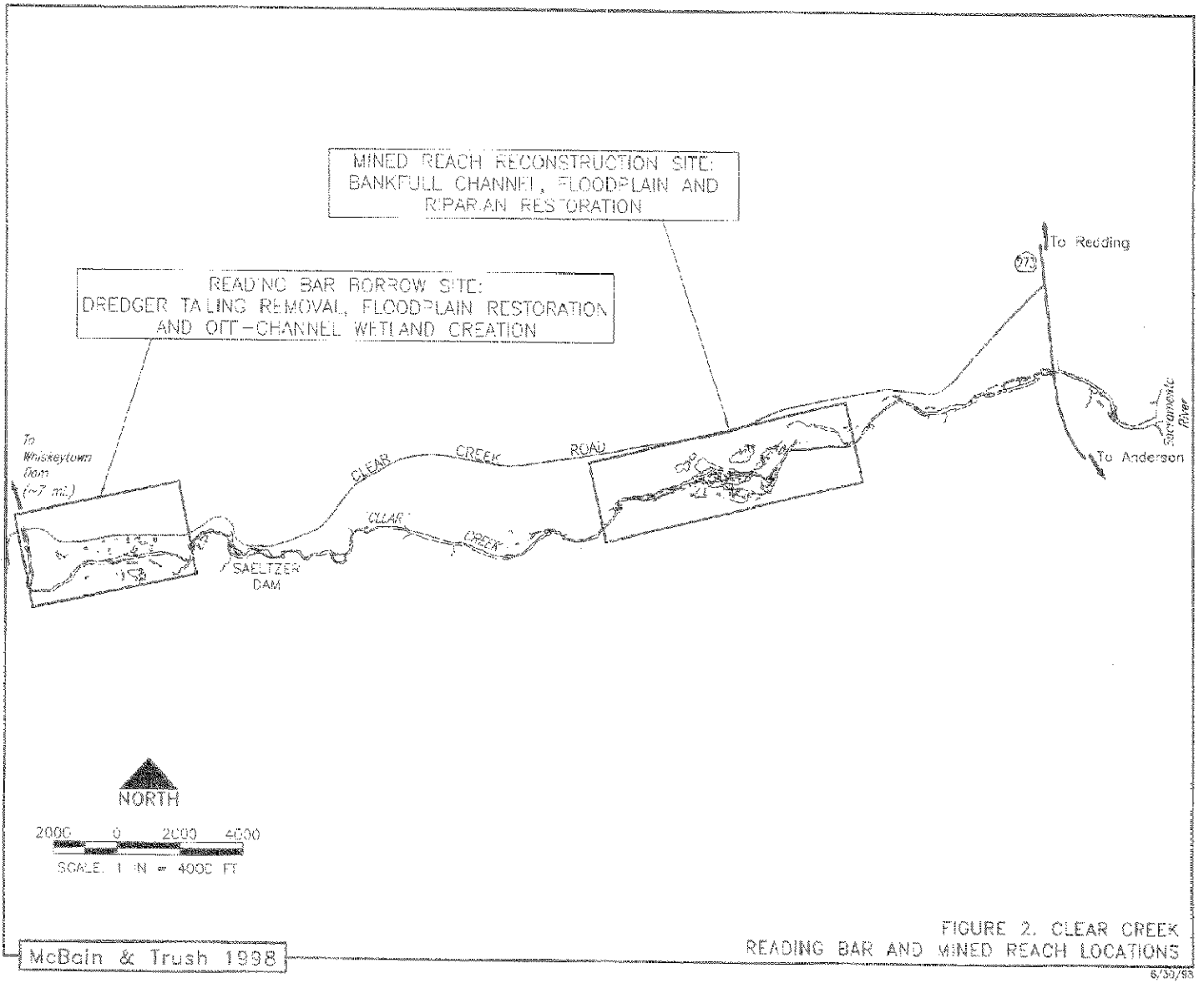

FIGURE 2. CLEAR CREEK
READING BAR AND MINED REACH LOCATIONS

6/30/98

I-014803

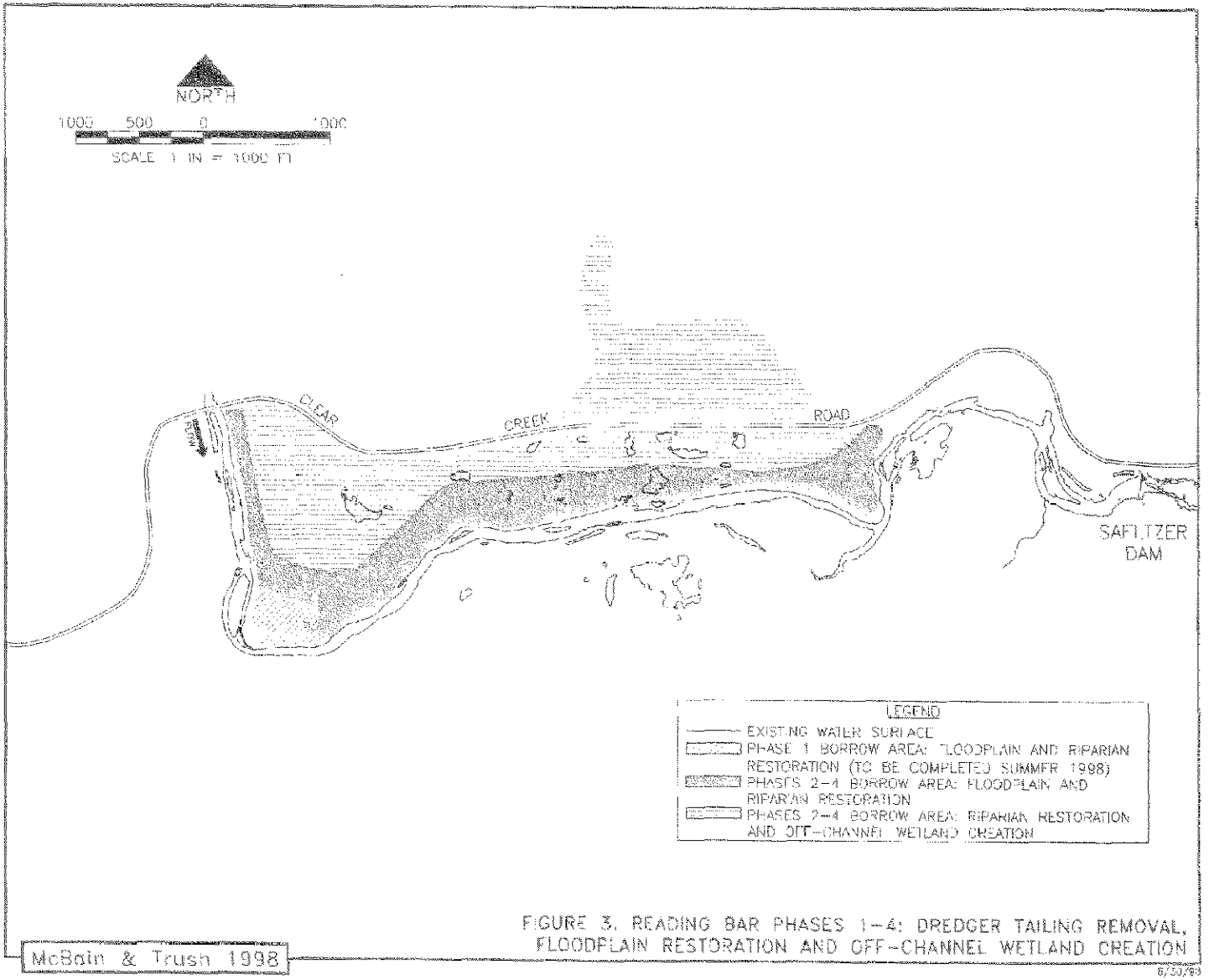

FIGURE 3. READING BAR PHASES 1-4: DREDGER TAILING REMOVAL, FLOODPLAIN RESTORATION AND OFF-CHANNEL WETLAND CREATION

McBain & Trush 1998

6/30/98

I-014804

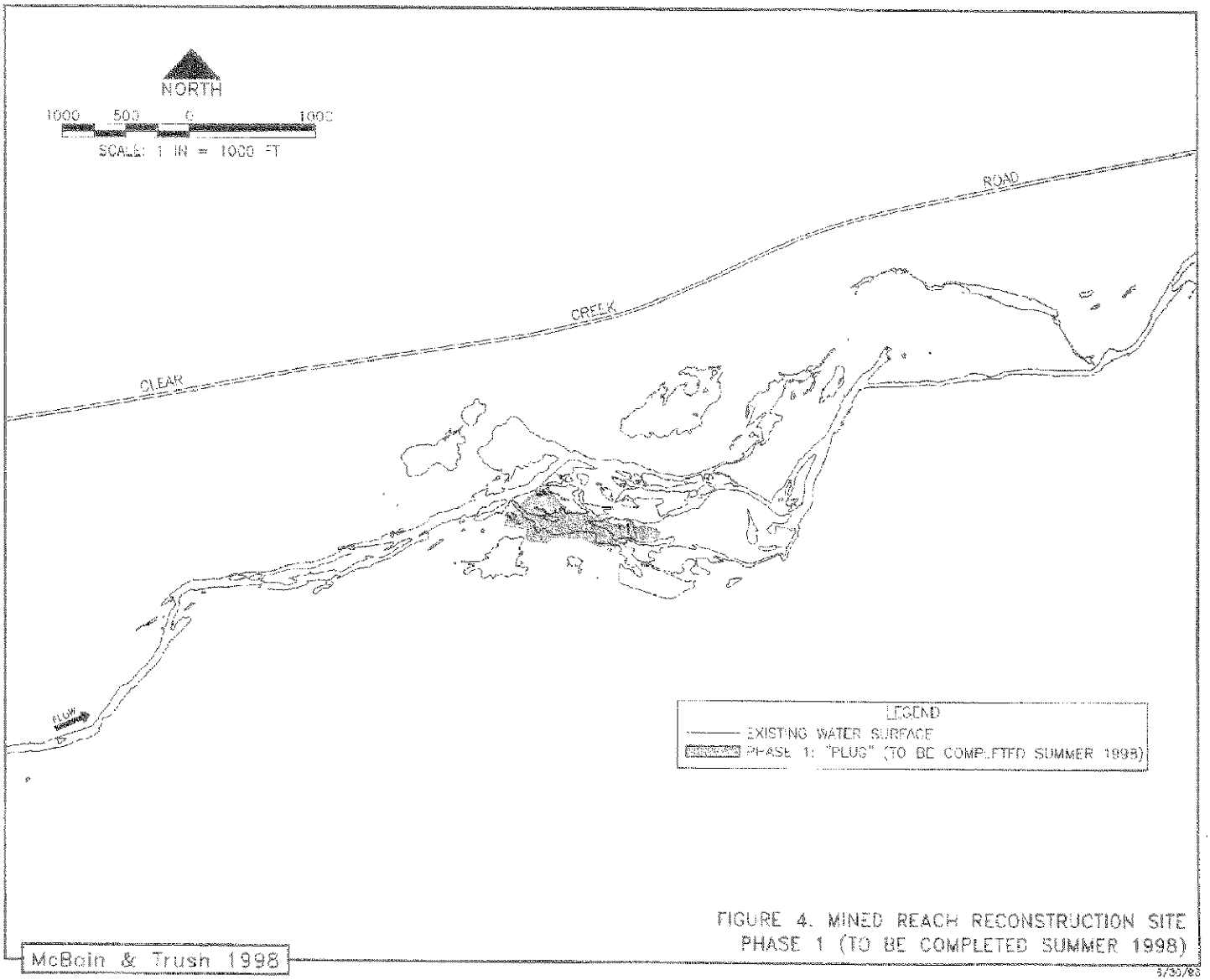

FIGURE 4. MINED REACH RECONSTRUCTION SITE
PHASE 1 (TO BE COMPLETED SUMMER 1998)

3/30/98

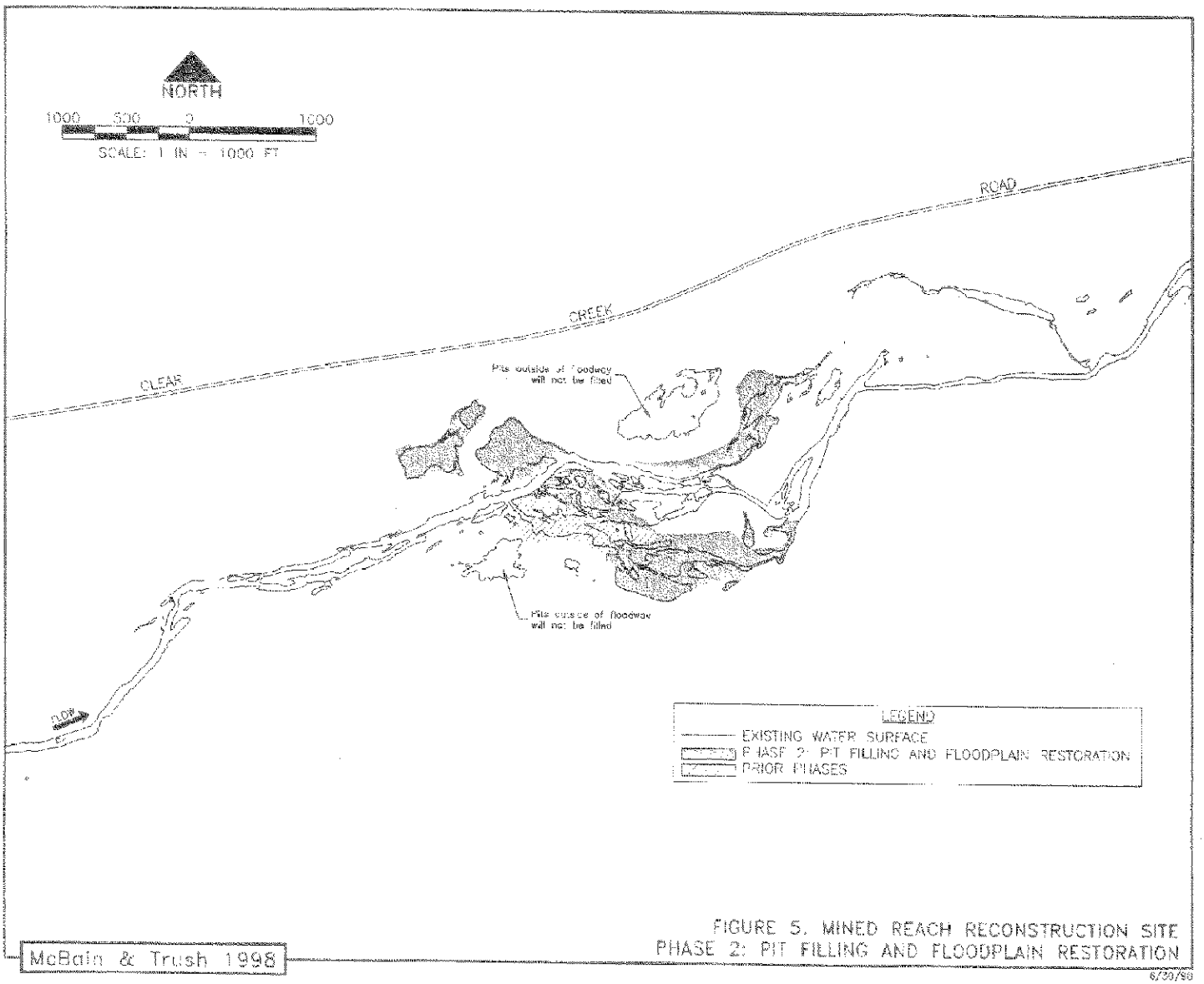

FIGURE 5. MINED REACH RECONSTRUCTION SITE
PHASE 2: PIT FILLING AND FLOODPLAIN RESTORATION

6/30/98

I-014806

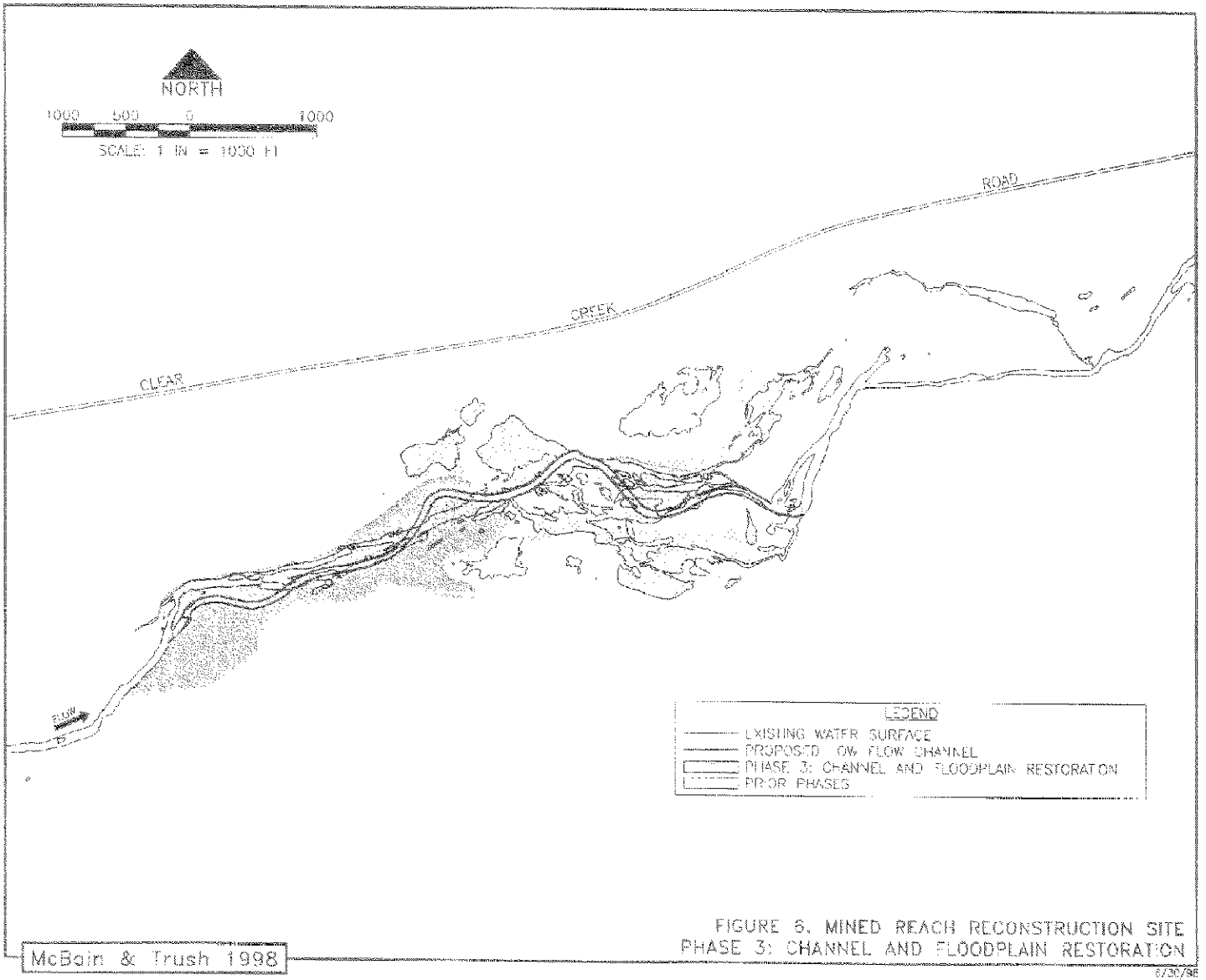

FIGURE 6. MINED REACH RECONSTRUCTION SITE
PHASE 3: CHANNEL AND FLOODPLAIN RESTORATION

McBain & Trush 1998

6/30/98

I-014807

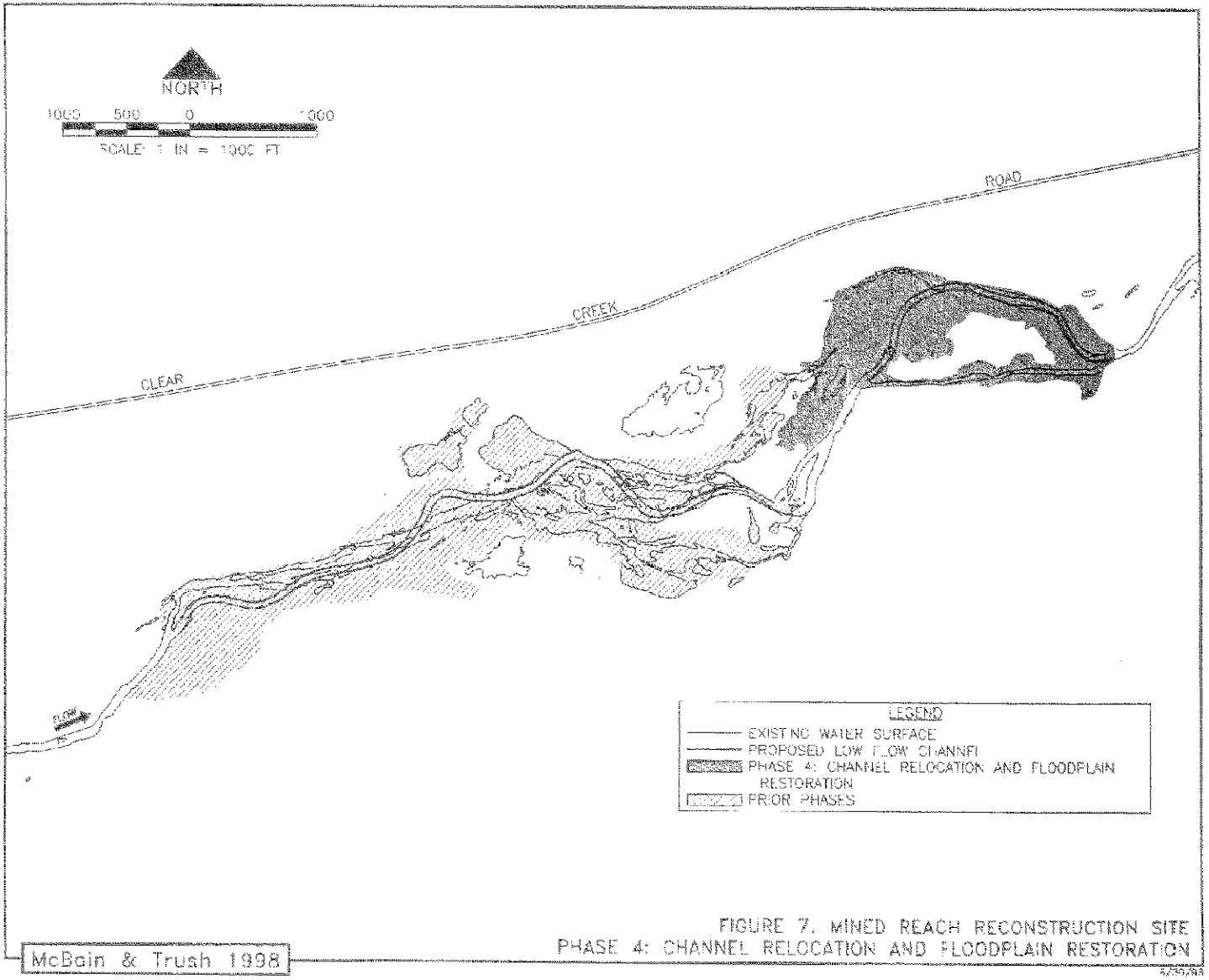

FIGURE 7. MINED REACH RECONSTRUCTION SITE
PHASE 4: CHANNEL RELOCATION AND FLOODPLAIN RESTORATION

McBain & Trush 1998

5/30/98

I-014808

Lower Clear Creek

Coordinated Resource Management & Planning Group

Private landowners, stakeholders, concerned citizens, federal, state and local agencies working together to restore the lower Clear Creek watershed

July 23, 1998

Mr. Lester Snow, Executive Director
CALFED Bay-Delta Program
1416 Ninth Street, Suite 1155
Sacramento, California 85614

RE: Clear Creek CALFED Grant Proposal

Dear Mr. Snow:

The Western Shasta Resource Conservation District recently submitted a CALFED grant proposal entitled "Lower Clear Creek Floodway Restoration Project" under the "Floodplain and Habitat Restoration" topic.

At the June 17, 1998 meeting of the Lower Clear Creek CRMP, the members unanimously agreed that this project deserved support and asked that this letter be sent to CALFED.

With the exception of the removal of Saeltzer Dam (this project is in progress), there is no major habitat improvement project more valuable to our efforts to restore the anadromous fisheries in lower Clear Creek. Restoring the 2.9 miles of gravel-mined and severely degraded habitat will create valuable new spawning grounds, remove ponds and areas which strand salmon and steelhead, and provide improved habitat conditions for salmonid species of special concern (spring-run, fall-run, and late fall-run chinook salmon, and steelhead).

Once Saeltzer Dam is removed and this floodway restoration project is completed, we will have a total of 16 miles of excellent anadromous fish habitat between Whiskeytown Dam and the Sacramento River. We have agreements for the necessary flows to sustain the fish and are working on longer-term agreements. Periodic injections of spawning gravel will be part of a continued enhancement program.

In the grant application, the lands on which these projects will take place were not yet under the management of the Bureau of Land Management. We are pleased to report that, as of the end of June, 1998, these lands are now owned by the federal government and managed by BLM.

This is a very carefully planned and thought out project which is now in the implementation phase, with Phase I already funded and in progress. We urge you to approve funding for the remaining phases.

Sincerely,

Richard Baumann

Richard Baumann
CRMP Director

3179 Bechelli Lane, Suite #110, Redding, CA 96002-2041 – Phone (530) 246-5299 Fax (530) 246-5164

I –014809

I-014809

California State Senate

SENATOR
K. MAURICE JOHANNESSEN
FOURTH SENATORIAL DISTRICT

Sept. 2, 1998

Lester A. Snow, Director
CalFed Bay-Delta Program
1416 Ninth St., Suite 1155
Sacramento, CA

RE: Letter supporting grant applications by Western Shasta Resource Conservation District

Dear Lester:

I am in support of two CalFed Watershed grant applications submitted by Western Shasta Resource Conservation District and intended for work on the Clear Creek watershed in Shasta County. I am taking this opportunity to urge your timely consideration for funding both of these proposed projects.

The first application seeks $3.5 million in Fiscal Year 1998-99 to restore a stretch of lower Clear Creek that was devastated by precious metal and gravel mining activities since the 1850s. The proposed project would make major strides toward repairing a significant stretch of habitat for spring-run Chinook salmon and steelhead. During the next three years, members of the RCD hope to realign the stream channel and rework numerous gravel pits to more effectively allow spawning salmon and steelhead access to Clear Creek's upper reaches.

The second application seeks $600,000 in Fiscal Year 1998-99 to coordinate and perform watershed improvement projects throughout the entire Clear Creek drainage in an effort to link land located above and below dams on the waterway. This project has the potential to dramatically reshape the way the public looks at watershed and the many benefits watershed can provide.

☐ STATE CAPITOL
SACRAMENTO, CA 95814
(916) 445-3333
(916) 445-7750 - FA

☑ 410 HEMSTED DRIVE SUITE 200
REDDING, CA 96002
(530) 224-4706
(530) 224-4794 - FAX

☐ 2967 DAVISON COURT, SUITE A-1
COLUSA, CA 95932
(530) 458-4161
(530) 458-4164 - FAX

☐ 1170 NORTH LINCOLN ST., STE 106
DIXON, CA 95620
(707) 678-3195
(707) 678-3198 - FAX

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Both applications show ample evidence that Western Shasta Resource Conservation District has several CalFed agency sponsors as well as additional funding for the necessary work.

This Resource Conservation District has a rich history of success and is one of the more ambitious RCDs in my Fourth Senate District. Its members have worked for several years to build community support and foster cooperation from private and public landowners. Furthermore, Clear Creek has several times been identified by CalFed fishery biologists as the Sacramento River tributary with THE best chance of dramatically improving salmon spawning habitat.

Most significantly, funding of these proposals will send a strong message to rural communities throughout Northern California that watersheds provide an important tangible resource, and that Californians throughout the state are willing to support well-reasoned and effective conservation and stewardship efforts.

Thank you for your serious consideration of these funding requests.

Sincerely,

K. MAURICE JOHANNESSEN,
Fourth Senate District

KMJ/glw

CC: Sam Ziegler, EPA
Tom Engstrom, WSRCD

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WALLY HERGER
7th DISTRICT, CALIFORNIA
PLEASE REPLY TO:
☐ WASHINGTON OFFICE:
2433 Rayburn House Office Building
(202) 225-3076
DISTRICT OFFICES:
☐ 60 Independence Circle, Suite 194
Chico, CA 95973
(530) 893-8369
☐ 410 Hemsted Drive, Suite 113
Redding, CA 96002
(530) 223-5898

COMMITTEE ON WAYS AND MEANS

COMMITTEE ON THE BUDGET

Congress of the United States
House of Representatives
Washington, DC 20515-0502

July 24th, 1998

Mr. Lester A. Snow
CALFED -- Bay Delta Program
1416 Ninth Street, Suite 1155
Sacramento, CA 95814

Dear Mr. Snow:

I write you in firm support of two CALFED grant proposals, "Lower Clear Creek Floodway Restoration Project" and the "Clear Creek Watershed Partnership." If obtained they would revamp and strengthen Clear Creek and the surrounding area.

In the past, the Clear Creek area was mined extensively for minerals and gravel. Unfortunately, this took an unexpected toll as it threw the creek out of its original alignment causing many abnormalities to occur. If fixed it would improve the water quality for residents, wildlife, and vegetation.

The environment is something we must protect and restore if possible. Therefore, I urge you to support these grants in order that we may return the creek to it's once natural state. As has been discussed in previous correspondences, I believe that the protection of watersheds should be a critical component in CALFED's mission. These projects will work toward that goal. I hope that you will be able to accommodate.

Sincerely,

Wally Herger

WALLY HERGER
Member of Congress

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STATE CAPITOL
P.O. BOX 942849
SACRAMENTO, CA 94249-0001
(916) 319-2002

Assembly
California Legislature

DICK DICKERSON
ASSEMBLYMEMBER, SECOND DISTRICT

April 14, 1999

Mr. Lester Snow
CALFED – By Delta Program
1416 Ninth Street, Suite 1155
Sacramento, CA 95814

RE: Western Shasta Resource Conservation District (WSRCD) 1999 Application

Dear Mr. Snow:

As an avid supporter of the WSRCD efforts in Shasta County's Clear Creek Watershed, I want to express my strong support for their CALFED grant proposal for Phases 3 and 4. This proposal presents a unique opportunity to CALFED, because it offers every challenge and opportunity possible in a CALFED watershed, with the broadest mix of local, state, federal agencies, and motivated landowners.

The WSRCD has worked for several years to build community support and foster cooperation from private and public landowners to produce clean water from healthy watersheds. The area of focus on Lower Clear Creek contains top priority restoration activities to restore river ecosystem health and robust salmonid populations.

The whole Lower Clear Creek project involves significant participation from the National Park Service, Fish and Wildlife Service, Bureau of Reclamation, Bureau of Land Management, Forest Service, Natural Resources Conservation Service, Environmental Protection Agency, Department of Fish & Game, Department of Water Resources, State Water Quality Control Board, Department of Forestry & Fire Protection, Shasta County, WSRCD, Shasta-Tehama Bioregional Council, and a mix of large and small landowners.

I encourage CALFED to continue their partnership in this watershed effort. Thank you for your leadership in this valuable program.

Sincerely,

DICK DICKERSON, Assemblyman
2nd District

DD:lt

DIANNE FEINSTEIN
CALIFORNIA

COMMITTEE ON FOREIGN RELATIONS
COMMITTEE ON THE JUDICIARY
COMMITTEE ON RULES AND ADMINISTRATION

United States Senate

WASHINGTON, DC 20510-0504

September 14, 1998

Mr. Lester A. Snow
CALFED Bay-Delta Program
1416 Ninth Street
Suite 1155
Sacramento, California 95814

Dear Mr. Snow:

I am writing in support of two recent proposals the Western Shasta Resource Conservation District (RCD) has submitted to the CALFED Program in order to address California's need for clean and efficient water flows from area watersheds.

The first proposal, the "Lower Clear Creek Floodway Restoration Project," intends to repair a portion of Shasta County's lower Clear Creek. I understand $5.8 million in funds from this grant will enable the RCD to realign the stream channel and rework gravel pits over the course of three years. The area in question is the site of the second major gold discovery in the State of California in the 1850's, and since that time has been extensively mined for both metals and gravel. Salmon protected by the Endangered Speices Act are currently being stranded in these mined areas and are unable to reach the Sacramento River. This project would address this problem in the lower Clear Creek area.

The second proposal, the "Clear Creek Watershed Partnership: A Clearer Path to Clean Water," would link lands below dams with those in the upper watersheds. Therefore the RCD requests $1.4 million for this three year project to reduce the risk of wildfires, limit sedimentation caused by soil erosion, and raise public awareness about healthy watersheds. The RCD has proposed to coordinate and perform this work for the entire Clear Creek drainage area.

I urge you to give both of these proposals every consideration.

Thank you for your assistance in this matter. I would appreciate being informed of any decision you reach with regard to this application. Please direct any questions or correspondence to Abby Lunardini of my San Francisco staff at (415) 536-6868.

Sincerely yours,

Dianne Feinstein
United States Senator

DF:aal

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COOPERATIVE EXTENSION
UNIVERSITY OF CALIFORNIA

1851 Hartnell Avenue
Redding, California 96002-2217
Telephone (530) 224-4902
Fax (530) 224-4904
Internet: gmnakamura@ucdavis.edu

EXTENSION FORESTRY

April 14, 1999

Mr. Lester Snow
CALFED Bay-Delta Program Office
1416 Ninth St, Suite 1155
Sacramento. CA 95814

Dear Mr. Snow:

This letter is in support of the Western Shasta Resource Conservation District's CALFED proposal, "A Clear Creek Prescription (CCRx)". The Clear Creek Prescription (CCRx) project is an opportunity to determine the feasibility and value of watershed-wide resource management planning and implementation in a watershed that is important to CALFED goals and objectives and is comprised of multiple ownerships with diverse interests and management objectives. Clear Creek is a "working" watershed, in the sense that people live within it, recreate within it, harvest timber within it and in many other ways use and influence it. Though the water it produces and the fisheries and habitats it supports are of most direct interest to CALFED, these pale beside the other values and benefits the watershed provides. The Clear Creek Prescription (CCRx) project will help us determine how to effectively and efficiently maintain these values and benefits into the future.

Though Western Shasta Resource Conservation District (WSRCD) is the applicant for this project, the Clear Creek Prescription (CCRx) project is truly a coordinated and collaborative effort among the partners cited in the proposal. The WSRCD is a member of the voluntary Shasta-Tehama Bioregional Council (STBC) which serves as a forum and clearinghouse on natural resource issues in the northern Sacramento River watershed. Rather than establish and have to support yet another administrative structure, the STBC and its member organizations and individuals have supported the WSRCD in implementing on-the-ground projects. The WSRCD has already successfully completed a number of projects directly related to the Clear Creek watershed including the Upper Clear Creek Watershed Analysis.

The University of California Cooperative Extension Service Forestry Program has been involved with Clear Creek through participation in the STBC. We expect to contribute in-kind education and outreach support for the Clear Creek Prescription (CCRx) project, much as we have with previous STBC education projects in fuels management, watershed management, biomass harvesting and prescribed burning, and WSRCD education projects. We strongly recommend CALFED support for Western Shasta Resource Conservation District's proposal.

Sincerely,

Gary Nakamura

Gary Nakamura, Area Forestry Specialist

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