i. Proposal number.# 2001-C201*****

ii. Short proposal title .# Lower Clear Creek Floodway Restoration Project Phases 3 and 4*****

APPLICABILITY TO CALFED ERP GOALS AND IMPLEMENTATION PLAN
1a1. Link to ERP Strategic Goals: What Strategic Goal(s) is /are addressed by this proposal? List the letter(s) of all that apply.

A. At-risk species
B. Rehabilitate natural processes
C. Maintain harvested species
D. Protect-restore functional habitats
E. Prevent non-native species and reduce impacts
F. Improve and maintain water quality# The proposed project will make an important contribution to Goal 2 (rehabilitate natural processes) and Goal 4 (protect/restore habitats). It will also make an incremental contribution to Goal 1 (at-risk species) and Goal 3 (harvested species.)*

1a2. Describe the degree to which the proposal will contribute to the relevant goal. Quantify your assessment and identify the contribution to ERP targets, when possible .# 9 pts. The proposed project will make an important contribution to restoring fluvial processes on Clear Creek, one of the ERP demonstration streams. By re-scaling the channel and injecting coarse sediment, the project will restore sediment routing. Re-grading of floodplains will also restore channel-floodplain connectivity. These process and habitat measures will likely make in incremental contribution to fall-run and spring-run spawning and rearing*

1b. Objectives: What Strategic Objective(s) is/are addressed by this proposal? List Objective (from the table of 32 objectives) and describe potential contribution to ERP Goals. Quantify your assessment, when possible .# 9 pts. The proposed project will make a measurable contribution to several process- and habitat-oriented objectives (2-5, 2-6, 2-7, 2-8). Clear Creek presents one of the best, and few, opportunities for restoring channel migration because of public ownership of the floodway. The proposed project will likely make an incremental contribution to the species-oriented objectives (1-1, 3-1). Clear Creek represents one of the best opportunities for restoring spring-run chinook.*

1c. Restoration Actions: Does the proposal address a Restoration Action identified in Section 3.5 of the PSP? Identify the action and describe how

well the proposed action relates to the identified Restoration Action.# 9 pts. The proposed project directly addresses several actions described in the PSP. It creates an opportunity for channel migration; for reconnecting channel-floodplain habitats; for incorporating an experimental approach to re-vegetation of a re-graded floodplain habitat; for better estimating geomorphic thresholds.*

1d. Stage 1 Actions: Is the proposal linked directly, indirectly or not linked to proposed
Stage 1 Actions? If linked, describe how the proposal will contribute to ERP actions during
Stage 1.# 8 pts. The proposed project does not address a Stage 1 action in the Implementation Plan, but it does address a an ERP Stage 1 action (contained in appendix D of the Strategic Plan). Most importantly, Clear Creek is a demonstration stream, which means the ERP intends to implement all identified restoration actions for Clear Creek in Stage 1 to assess the scope of restoration that is feasible to achieve.*

1e. MSCS: Describe how the proposal is linked to the Multi-Species Conservation Strategy and if it's consistent with the MSCS Conservation measures. Identify the species addressed and whether the proposal will "recover", "contribute to recovery" or "maintain" each species.# 7 pts. Clear Creek presents one of the few opportunities for re-establishing a self-sustaining population of spring-run chinook salmon. The proposed project will likely improve rearing habitat and eliminate stressors (stranding) for juveniles. The project will yield similar benefits for fall-run chinook salmon. Restoration of floodplain habitats presents an opportunity to design for sensitive bird and amphibian species.*

1f. Information Richness/Adaptive Probing related to the proposal: Describe the degree to which the proposal provides information to resolve one of the 12 scientific uncertainties (Section 3.3 of the PSP), and whether the proposal offers a prudent approach to answer these uncertainties.# If designed and monitored properly, the proposed project could provide some valuable opportunities for learning about process-habitat-species interactions. The project proponents should be required to convene a panel of outside experts to review the restoration design to incorporate more experimental elements--perhaps this is what the proponents mean by an Adaptive Management Team. Project proponents should also be encouraged to develop a riparian re-vegetation plan that examines process-based vs. cultivated riparian restoration. Project proponents should also be encouraged to design and monitor the project to try to ascertain geomorphic

thresholds.*

1g. Summarize comments from section 1a through 1f related to applicability to CALFED goals and priorities. Identify the strengths and weaknesses of the proposal, highlighting the applicability of the proposed project to CALFED and CVPIA goals and priorities. Focus on aspects of the proposal that may be important to later stages in the project review and selection process.# 9 pts. This is an important project, especially in light of Saelzer Dam removal. The project would help to eliminate a source of juvenile mortality, enhance rearing habitat, and expand the extent and improve the quality of spawning habitat. The project is likely to make important contributions to building the spring-run population on Clear Creek, and in bolstering the fall-run population. Project proponents should be required to convene a panel of outside experts to review the proposed restoration design to optimize the information yield of the project.*

APPLICABILITY TO CVPIA PRIORITIES

1i. Describe the expected contribution to natural production of anadromous fish. Specifically identify the species and races of anadromous fish that are expected to benefit from the project, the expected magnitude of the contribution to natural production for each species and race of anadromous fish, the certainty of the expected benefits, and the immediacy and duration of the expected contribution. Provide quantitative support where available (for example, expected increases in population indices, cohort replacement rates, or reductions in mortality rates).# This project is consistent with CVPIA tool 3406 (b)(12) to increase flows, improve fish passage and restore habitat in Clear Creek. It also directly relates to the High Priority AFRP Clear Creek Action 2. Specifically, this project is to restore 2.9 miles of streambed and flood plain in Lower Clear Creek. This area has suffered severe damage from historic mining and needs to be restored to provide improved spawning and rearing habitat for steelhead, spring run, fall and late-fall chinook salmon. The work identified in this proposal will restore the natural form to the Lower Clear Creek channel and flood plains which will initiate and sustain natural sediment transport processes and channel migration, restore aquatic, wetland and riparian habitats, flood plain connectivity and riparian regenerative processes, and thus ecological function to the riverine ecosystem. The project will improve the ecological health of Lower Clear Creek by initiating and sustaining sediment supply and transport capability, restoring channel migration ability, and restoring flood plain connectivity. Overall salmonid production should increase, based on monitoring and evaluation results thus far, and continue to increase as a result of this project. The proposal is a long-term solution to large-scale problems in the lower reaches of Clear Creek. While most benefits from this proposal are direct and immediate, relative to increasing production of anadromous fish, some associated teaching scenarios at nearby Whiskeytown Environmental School include actual watershed restoration activities that are carried out by students. These small scale restoration efforts can directly contribute to increasing production of anadromous fish. Educational programs, as represented by this proposal, benefit local education and communication which are essential to the implementation and long-term effectiveness of CVPIA restoration efforts that target all anadromous fish species in Central Valley streams.*

1j. List the threatened or endangered species that are expected to benefit from the project. Specifically identify the status of the species and races of anadromous fish that are expected to benefit from the project, any other special-status species that are expected to benefit, and the ecological community or multiple-species benefits that are expected to occur as a result of implementing the project.# The project would benefit habitat for anadromous salmonids, including fall and late-fall-run (candidate),and spring-run (threatened) chinook salmon, and steelhead (threatened). The ecological community or multiple-species benefits that are expected to occur as a result of implementing the project include benefits for these additional Threatened and Endangered Species and Species of Special Concern that may occur in the Lower Clear Creek Watershed: Southern bald eagle, Osprey, Peregrine Falcon, Bank swallow, Long-eared owl, Spotted owl, Willow flycatcher, Yellow warbler, Yellow-breasted chat, Red-legged frog, Northwestern pond turtle, Pale big-eared bat, Pacific fisher, Silky crypthantha, Red Bluff dwarf rush, and Diamorphic snapdragon. There are also multi-species benefits since teachers at Whiskeytown Environmental School and the Community Colleges will be introducing specific watershed training on Central Valley watershed plant and wildlife ecosystems to students throughout their environmental education in K-14 grades.*

1k. Identify if and describe how the project protects and restores natural channel and riparian habitat values. Specifically address whether the project protects and restores natural channel and riparian habitat values, whether the project promotes natural processes, and the immediacy and duration of benefits to natural channel and riparian habitat values.# The project will restore natural form to the channel and flood plains which will initiate and sustain natural sediment transport processes and channel migration, restore aquatic, wetland and riparian habitats, flood plain connectivity and riparian regenerative processes, and thus ecological function to the riverine ecosystem. Historic instream aggregate extraction removed natural point bars, flood plains, and riparian vegetation, leaving a multi-channeled, unconfined flood way with numerous ecological problems. The remaining area is covered with dredger tailings, which confine the channel and prevent a functional flood plain from forming. The adverse 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; 5) and reduction in the spawning riffle area.

Riparian revegetation plans are designed to deliberately vary treatments to provide a range of substrate conditions, with different planting patterns and varying distances of planting from the channel. Monitoring water table elevations, root growth patterns and rates, and riparian establishment success will provide insights into the role of soil texture in root growth, riparian planting success and the ability of riparian plants to resist flood scour.*

1l. Identify if and how the project contributes to efforts to modify CVP operations. Identify the effort(s) to modify CVP operations to which the proposed project would contribute, if applicable. Efforts to modify CVP operations include modifications to provide flows of suitable quality,

quantity, and timing to protect all life stages of anadromous fish as directed by Section 3406 (b)(1)(B) of the CVPIA, including flows provided through management of water dedicated under Section 3406(b)(2) and water acquired pursuant to Section 3406(b)(3).# While this is a streambed and riparian restoration project and is not directly focused on CVP operations affecting flows, it does effectively address physical process and habitat requirements, a key component of which are flow related. Phase I of this multi-phase restoration project included obtaining increased flow releases from Whiskeytown Dam, a component of the CVP. If future additional water is needed to fully achieve geomorphic attributes, then B2 water may be used -- thus resulting in CVP modifications.*

1m. Identify if and how the project contributes to implementation of the supporting measures in the CVPIA. Identify the supporting measure(s) to which the proposed project would contribute, if applicable. Supporting measures include the Water Acquisition Program, the Comprehensive Assessment and Monitoring Program, the Anadromous Fish Screen Program, and others.# This project would support implementation of Section 3406(b)(12), the Clear Creek Restoration Program, and contribute to the implementation of the next phase of restoration activities. This project also supports Section 3402(a) to protect, restore, and enhance fish, wildlife, and associated habitats in the Central Valley.*

1n. Summarize comments from section 1i through 1m related to applicability to CVPIA priorities (if applicable, identify the CVPIA program appropriate to consider as the source of CVPIA funding [for example, the Anadromous Fish Restoration Program, Habitat Restoration Program, Water Acquisition Program, Tracy Pumping Plant Mitigation Program, Clear Creek Restoration Program, Comprehensive Assessment and Monitoring Program, and Anadromous Fish Screen Program]). Identify the strengths and weaknesses of the proposal, highlighting the applicability of the proposed project to CALFED and CVPIA goals and priorities. Focus on aspects of the proposal that may be important to later stages in the project review and selection process.# Restoration of the Clear Creek watershed is definitely a CVPIA priority since Clear Creek has its own, specific, section in the CVPIA. The anadromous fish species that would benefit from these restoration actions include steelhead, spring, fall and late-fall chinook salmon. Landowners and stakeholders have been engaged in a local watershed workgroup since 1996. Their technical advisors have organized into the Lower Clear Creek Restoration Technical Team which is comprised of representatives of state, federal and local resource agencies. Consultants involved in early restoration of Clear Creek have continued their participation with the development of this Phase III and IV project. Specifically, this project is based on the Channel Reconstruction, Riparian Vegetation, and Wetland Creation Design Document -- a peer reviewed document detailing the approach to be taken on each phase of the project (i.e. including information pertaining to a full understanding of the technical and scientific approach used in designing the project) and would implement the actions described therein to restore natural channel and riparian habitat values. The project is consistent with all planning documents being developed in response to legislatively mandated actions (S.B. 1086, S.B. 2261, and CVPIA), AFRP Clear Creek Action 2, and supports the California Department of Fish & Game restoration plans for Lower Clear Creek. It also complements other major investments in the Clear Creek watershed, avoids the loss of gravel by reducing the sizes of pits, and ensures that when Saeltzer Dam is removed (2000-2001), the gravel behind it will be integrated into the bedload and not be deposited into the dredge-mining pits. The expected magnitude of benefits resulting from this project is high, the likelihood of benefits is high, and the duration of benefits is long.*

Recent concerns with the findings of significant concentrations of mercury in the tailings that would be used in this project would need to be alleviated prior to full implementation of the project (i.e. the Technical Team is concerned about the possibility of mobilizing mercury into Clear Creek and the Sacramento River as a result of this project). Research and resolution of the magnitude and distribution of this issue would need to be reached prior to utilizing the gravel that exists in the mine tailings for this restoration project. (It should be noted that page 6 of the proposal, under Approach, Phase III refers to "the introduction of cleaned and sorted gravel.")

A second concern is that the project could create a broad flat flood plain, and while it would reduce stranding in the current ponded areas, it is not clear if there will also be stranding issues associated with the new configuration. We imagine that the consultants selected to perform the design and engineering would have sufficient background and experience to alleviate this concern.*

RELATIONSHIP TO OTHER ECOSYSTEM RESTORATION PROJECTS
2a. Did the applicant explain how the proposed project relates to other past and future ecosystem restoration projects, as required on page 57 in the PSP? Type in yes or no.#yes*

2b. Based on the information presented in the proposal and on other information on restoration projects available to CALFED and CVPIA staff, describe how the proposed project complements other ecosystem restoration projects, including CALFED and CVPIA. Identify projects or types of projects that the proposed project would complement, now or in the future. Identify source of information.#This Lower Clear Creek project is one of many (over 15) designed to help restore Clear Creek for the benefit of salmonids. Source: Proposal, quarterly reports.*

RESULTS AND PROGRESS ON PREVIOUSLY FUNDED CALFED AND CVPIA PROJECTS, INCLUDING REQUESTS FOR NEXT-PHASE FUNDING
3a1. Based on the information presented in the proposal and on project reports and data available to CALFED and CVPIA staff, has the applicant previously received CALFED or CVPIA funding? Type CALFED, CVPIA, both, or none .#both*

3a2. If the answer is yes, list the project number(s), project name(s) and whether CALFED or CVPIA funding. If the answer is none, move on to item 4.#
CALFED
98F15 - Lower Clear Creek Floodway Restoration Project-Phase 2
99N16 - Clear Creek Prescription
CVPIA
6-FG-20-142401 Lower Clear Creek (LCC) CRMP Organization
7-FG-20-14560 LCC Erosion Inventory
7-FG-20-15290 LCC Spawning Gravel
7-FG-20-14610 LCC Fuel Inventory
7-FG-20-14720 LCC Photogrammetry Survey*

3b1. Based on the information presented in the proposal and on project reports available to CALFED and CVPIA staff, did the applicant accurately state the current status of the project(s) and the progress and accomplishments of the project(s) to date? Type yes or no.#yes*

3b2. If the answer is no, identify the inaccuracies:#

3c1. Has the progress to date been satisfactory? Type yes or no.#yes*

3c2. Please provide detailed comments in support of your answer, including source of information (proposal or other source):#Previous projects have been or are near completion. Source: Proposal, quarterly reports.*

REQUESTS FOR NEXT-PHASE FUNDING
3d1. Is the applicant requesting next-phase funding? Type yes or no.#yes*

3d2. If the answer is yes, list previous-phase project number(s) here. If the answer is no, move on to item 4.#98F15*

3e1. Does the proposal contain a 2-page summary, as required on pages 57 and 58 of the PSP? Type yes or no.#yes*

3e2. Based on the information presented in the summary and on project reports available to CALFED and CVPIA staff, is the project ready for next-phase funding? Type yes or no.#yes*

3e3. Please provide detailed comments in support of your answers, including source of information (proposal or other source):#Phase 1 of the project and most of phase 2 have been constructed and monitoring is ongoing. They are ready for the next phase. Source: Proposal, quarterly reports.*

LOCAL INVOLVEMENT

4a. Does the proposal describe a plan for public outreach, as required on page 61 of the PSP? Type yes or no.# Yes.*

4b. Based on the information in the proposal, highlight outstanding issues related to support or opposition for the project by local entities including watershed groups and local governments, and the expected magnitude of any potential third-party impacts.# This project has been presented by the Lower Clear Creek Restoration Technical Team to the Lower Clear Creek Coordinated Resource Management Planning (CRMP) Group, which provides a mechanism for private stakeholder participation and fully supports this proposal (includes landowners, interest groups and local businesses). The Shasta County Board of Supervisors has been an avid supporter of the work being done in the Clear Creek Watershed. Restoration of Lower Clear Creek is also supported by the Shasta-Tehama Bioregional Council. There are no identified third party impacts.*

ENVIRONMENTAL COMPLIANCE

4d. List any potential environmental compliance or access issues as identified in the PSP checklists.# County Special or Conditional Use permits may be required for increase in heavy vehicle traffic on county roads.*

4e. Specifically highlight and comment on any regulatory issues listed above that may prevent the project from meeting the projected timeline.# Previous gravel placement projects have come under scrutiny by local county governments due to increased traffic of larger vehicle traffic associated with project operations.*

COST

5a. Does the proposal include a detailed budget for each year of requested support? Type yes or no.#Yes, breakdown by quarter*****

5b. Does the proposal include a detailed budget for each task identified? Type yes or no.#Yes.*

5c. Is the overhead clearly identified? Type yes or no.#No clear indication of overhead costs. Indirect costs at 15%*

5d. Are project management costs clearly identified? Type yes or no.#Yes, line item in each phase.*

5e. Please provide detailed comments in support of your answers to questions 5a - 5d.#Need to clearly indicate the overhead.*

COST SHARING
6a. Does the proposal contain cost-sharing? Type yes or no.#Yes*

6b. Are applicants specifically requesting either state or federal cost share dollars? Type state, federal, or doesn't matter.#Doesn't matter*

6c. List cost share given in proposal and note whether listed cost share is identified (in hand) or proposed.

6c1. In-kind:#n/a*

6c2. Matching funds:#n/a*

6c3. Show percentage that cost sharing is of total amount of funding requested along with calculation.#Bureau of Land Management: 300,000 dollars; Bureau of Reclamation/CVPIA: 175,000 dollars.*

6d. Please provide detailed comments in support of your answers to questions 6a - 6c3.#All information requested has been provided by project proponent in a clear, concise, and understandable format.*