i. Proposal number.# 2001-K203*

ii. Short proposal title .# Merced River Temperature Management Feasibility Study*

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# A*

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.# This proposal is directed at temperature management in the lower Merced River which could potentially contribute to the recovery of San Joaquin fall-run chinook salmon and, perhaps, steelhead trout.*

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.# Indirectly, Goal 1, Objective 1 applies to this research project: achieve, first recovery, and then large self-sustaining populations of chinook salmon.*

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.# The PSP requests proposals in the Fishery Monitoring Assessment, and Research category, specifically assessment of reservoir operations and/or the use of temperature control devices in the Stanislaus, Tuolumne, and Merced rivers to improve temperatures for chinook salmon spawning and steelhead rearing.*

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.# Temperature management is not identified as a Stage 1 action.*

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.# This proposal will address solutions to provide cool water in the lower Merced River to support two MSCS "Recover" species: fall-run chinook salmon and steelhead trout.*

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.# The proposal provide a clearly stated hypothesis, two conceptual models, and a description of the adaptive approach. The product of the feasibility study will likely be an adaptive water temperature management program.*

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.# Water temperature management on the lower Merced River can benefit naturally spawning fall-run chinook, Merced River Hatchery operations, and naturally spawning and rearing steelhead trout. This study will define opportunities and constraints to managing water temperatures and is particularly important in identifying opportunities to improve habitat conditions for steelhead.*

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).# Both AFRP and CALFED planning documents identify water temperature as one of the factors
likely to influence and limit production of Merced River fall-run chinook salmon. Specifically, this proposal addresses Merced River Evaluation 1 of the 1997 Revised Draft Restoration Plan for the AFRP to: "Identify and implement actions to provide suitable water temperatures for all life stages of chinook salmon; establish maximum temperature objectives of 56?F from October 15 to February 15 for incubation and 65?F from April 1 to May 31 for juvenile emigration." A linked reservoir-river water temperature evaluation and feasibility study is a critical step to identify a range of solutions and magnitude of benefit from different management interventions. Because the Merced River sustains the southernmost fall-run chinook salmon population in the Central Valley, the system is prone to water temperatures of concern for chinook salmon more frequently in the fall and spring than in most other systems in the Central Valley (information provided in proposal). Given that an action, or actions, can be identified that will increase temperature management flexibility, improved temperature and temperature management could lead to substantial benefits to fall run chinook salmon and steelhead. Benefits could be realized as early as 3-years if operational improvements are identified and implemented. Benefits resulting from physical modifications that would help improve water temperatures would accrue at some point after this depending on the preferred alternative and funding availability. Once implemented the benefits provided through improved water temperature management should be durable into the future.*

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 federally threatened Central Valley Steelhead ESU and the candidate fall-run chinook salmon would both benefit from action taken as a result of this temperature management feasibility study.*

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.# Improved water temperature through re-operation of reservoir releases, structural modifications, and other water management options would support natural processes by restoring a more functional thermal regime that has been drastically altered through water storage and diversion. This would support improved natural channel and riparian habitat values to the extent that water quality for fish habitat could be improved.*

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).# One of the mechanisms to improve water temperature in the Merced River may be additional water acquired pursuant to Section 3406 (b)(3) of the CVPIA. Additional water for temperature protection in the Merced River to meet the needs of fish in-basin could also assist in helping to provide added flexibility to address competing demands for CVP water downstream of the Merced River. Benefits accrued through acquired water would not be as durable compared to improved water temperature management through re-operation and modification to existing storage and release structures.*

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 water temperature management feasibility study could help address two supporting measures of the CVPIA. First is Section 3406 (b)(3) of the CVPIA which authorizes Interior to identify and acquire additional water for the benefit of fish and wildlife. Second, Section 3406(g) of the CVPIA directs the Secretary, in cooperation with the state of California, to develop models and data to evaluate the ecologic and hydrologic effects of existing and alternate operations of public and private water facilities and systems to improve scientific understanding and enable the Secretary to fulfill requirements of the CVPIA.*

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.# This temperature management feasibility study should help provide valuable information that could benefit fall-run chinook salmon and steelhead by identifying the most effective solutions to meet temperature requirements for salmon and steelhead in the Merced River. The study is consistent with Evaluation 1 of the 1997 Revised Draft Restoration Plan for the AFRP, and the AFRP is the most appropriate CVPIA program for funding consideration. Potential outcomes are improved reservoir management, structural modifications to upstream facilities, and identification of additional water needs to help improve fall and spring water temperatures during some water year types.*

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.#Information from this project will feed into the Merced River Corridor Restoration Project funded by CALFED to improve stream temperature management for the lower Merced River and complements CALFED and AFRP salmon enhancement projects on the Merced River. Source: Proposal*

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 .#none*

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.#

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.#

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

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

3c2. Please provide detailed comments in support of your answer, including source of information (proposal or other source):#

REQUESTS FOR NEXT-PHASE FUNDING

3d1. Is the applicant requesting next-phase funding? Type yes or no.#no*

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

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

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.#

3e3. Please provide detailed comments in support of your answers, including source of information (proposal or other source):#

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.# The proposal mentions linkages to the Technical Advisory Committee (TAC) initiated by the CDFG and Merced Irrigation District. It also mentions linkages to the developing Merced River Stakeholder group established with funding by the AFRP to the County of Merced and East Merced Resource Conservation District in support of the CALFED funded Merced River Corridor Restoration Project. The proposal fails to mention that there is also a broader Technical Advisory Committee (TAC) associated with the Merced River Stakeholder Group that is much more broadly represented than just the resource agencies and MID. There needs to be a better description of the linkage between the two currently separate TAC processes and how they will interface to fully engage all of the active river stakeholders interested in management of the Merced River corridor.*

ENVIRONMENTAL COMPLIANCE
4d. List any potential environmental compliance or access issues as identified in the PSP checklists.# None.*

4e. Specifically highlight and comment on any regulatory issues listed above that may prevent the project from meeting the projected timeline.# None.*

COST
5a. Does the proposal include a detailed budget for each year of requested support? Type yes or no.# yes*

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.# yes*

5d. Are project management costs clearly identified? Type yes or no.# yes*

5e. Please provide detailed comments in support of your answers to questions 5a - 5d.# Project Management
is estimated at $75,000. Overhead of 40% is quoted. Applicant indicates there is severability between certain tasks see Table 2 cost breakdown by year.*

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:# $75,000 proposed*

6c2. Matching funds:# $0*

6c3. Show percentage that cost sharing is of total amount of funding requested along with calculation.# 19% or 75,000/395,000=.189873417*

6d. Please provide detailed comments in support of your answers to questions 6a - 6c3.# In-kind services are
for task 5, project management.*