i. Proposal number.#2001- K210*

ii. Short proposal title.# Health Monitoring of Hatchery and natural Fall-run Chinook Juveniles*

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 will collect quantitative information regarding the health and fitness of San Joaquin juvenile chinook. This is valuable information in better understanding and managing this run of chinook, which will lead to the development of improved recovery/management measures.*

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.# Goal 1, Objective 1. Achieve, first, recovery and then large self-sustaining population of fall/late-fall-run chinook salmon. The goal of the ERP is to recover San Joaquin fall-run 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.# This proposal is a Fishery Monitoring Assessment and Research proposal to improve our understanding of the ecological processes affecting the fishery resources of the Central Valley. This proposal will improve and expand the inventory and monitoring of S.J. fall-run chinook salmon to provide a better assessment of correlation and relationships.*

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.# This action is primarily a monitoring/research proposal and is not 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.# S.J. fall-run chinook salmon are classified as a "recover" species in the MSCS. This proposal may be linked to the following MSCS conservation measures: continue research to determine causes for low outmigration survival of fish from the San Joaquin River, operate hatcheries such that the maintenance of natural populations are not threatened by the release of hatchery fish.*

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.# This proposal does not address one of the 12 uncertainties. The proposal will help reduce uncertainties regarding the health of hatchery and naturally produced fall-run chinook in the San Joaquin basin. The proposal does not explicitly provide a conceptual model or hypotheses to be tested by the fish health evaluation. The conceptual model is embedded in the ecological/biological objectives section. Likewise, there is no mention of adaptive management in the proposal, although it is mentioned that results of the study can be used by the California Department of Fish and Game to develop optimal hatchery operations for the basin.*

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.# The proposal could have been improved by presentation of more explicit information regarding the conceptual approach, hypotheses to be tested, and application of collected data to adaptive management. Regardless of these shortcomings, the proposal is good, and its low cost make its funding desirable.*

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 evaluation is consistent with Central Valley-wide Evaluation 5 of the 1997 Revised Draft Restoration Plan (RDRP) for the AFRP to: "Evaluate the transfer of disease between hatchery and natural stocks." And more generally, this evaluation is consistent with one of the RDRP objectives to: Collect fish population, health, and habitat data to facilitate evaluation of restoration actions. San Joaquin fall-run chinook salmon are the target of this proposal. This monitoring effort will also link to other temperature evaluation projects, proposals and objectives on the San Joaquin River tributaries and the Delta. Water temperatures, especially in the fall and spring, are a concern for anadromous salmonid health and condition, and can exert both direct and indirect effects on salmon production. Each of the three San Joaquin River tributaries at times can provide water temperatures that far outside of what is thought to be optimal for juvenile salmonids. However, the in-situ organism physiological response in not well documented for the San Joaquin. Likewise, contaminants are often argued to be a factor that may regulate salmon production. This proposed work builds from work initiated in 2000. This effort could lead to both water and hatchery management changes that have the potential to boost natural production of anadromous fish. This is important work to continue, but would not likely lead to near term benefits for anadromous fish. This work will help provide information that will help describe the benefits of improved temperature management in the San Joaquin River tributaries.*

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.# This monitoring work targets fall-run chinook salmon, a candidate for listing under the ESA. This is very targeted monitoring that could lead to water and hatchery management practices that potentially could also benefit steelhead, which are currently listed as threatened under the ESA.*

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.# This monitoring would help identify potential physiological and pathological responses of fall-run chinook salmon throughout the spring outmigrant period which covers a range of water temperature conditions in each San Joaquin River tributary and the Delta. It would also evaluate the potential for

pathological interactions between natural and hatchery salmon. This does not directly restore natural channel and habitat values, but indirectly could promote natural processes. The three San Joaquin River tributaries and the Delta have all been so altered that the potential for both temperature and contaminants to effect the physiological state of both occupant and migrant salmon is likely high. The degree of stress and disease that may occur as a result of current conditions remains largely unknown.*

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).# This physiological monitoring work, coupled with other temperature investigations, could lead to more specific temperature objectives in the spring during salmon smolt out-migration. One of the mechanisms to improve water temperature in any of the San Joaquin River tributaries is through additional water acquired pursuant to Section 3406 (b)(3) of the CVPIA.*

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.# Implementation of CVPIA supporting measures could indirectly relate to 3406 (b)(2), for the Stanislaus River and Delta and (b)(3) for the Tuolumne and Merced rivers. As mentioned previously, if a better understanding of the physiological and pathological status of out-migrating salmon can be developed, it could be one line of evidence used to provide justification for more specific water temperature objectives. Several likely mechanisms that could be used to help achieve temperature objectives include (b)(2) for the salmon population on the Stanislaus and (b)(3) water for salmon in the Merced and Tuolumne rivers.*

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 physiological and pathological monitoring work of San Joaquin fall-run chinook salmon is needed to better understand potential physiological response of salmon to different environmental conditions

during outmigration, including water temperature. It is linked to the Revised Draft Restoration Plan via Central Valley-wide Evaluation 5. The AFRP is probably the best CVPIA program to consider funding this proposal. The work will also help examine disease interactions between naturally-produced and hatchery introduced salmon. Timing is good for this work as each of the tributaries are considering temperature management objectives, and this investigation of fish physiological condition could add empirical information that could help refine these efforts. Benefits will be better information that can lead to more effective management of water temperatures for anadromous salmonids; these benefits would not likely accrue for several years until the effort can be completed and potentially translated in to management action. Linkages to other CVPIA supporting measures such as use of (b)(2) and (b)(3) water are indirect.*

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.#no*

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.#No information provided.*

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.# No*

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 is characterized as a monitoring effort that needs no additional coordination outside of the coordination that has occurred during the first year's work. Distribution of reports to San Joaquin based stakeholders is a must. More importantly, the San Joaquin Salmon Project Work team of the Interagency Ecological Program and the San Joaquin River Management Program are groups essential to coordinate with and to keep informed of project status and progress.*

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.#no*

5e. Please provide detailed comments in support of your answers to questions 5a - 5d.# Overhead is quoted at
3%.*

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:# $59,200 proposed*

6c2. Matching funds:# $0*

6c3. Show percentage that cost sharing is of total amount of funding requested along with calculation.# 145% or 59,200/40,890=1.447786744*

6d. Please provide detailed comments in support of your answers to questions

6a - 6c3.# In-kind services are
portions of the principle investigator and IEP biologist's salary. Applicant is taking exception to state performance retention (10% withholding) standard language which could be a limiting factor
on the source of funding.*