

i. Proposal number.# 2001-F217

ii. Short proposal title .# Algal-bacterial selenium removal*

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#See 1g.***

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 .#See 1g.*

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 .# See 1g.*

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.# See 1g.*

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.# See 1g.*

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.# See 1g*

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.# See 1g.*

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.# This proposal is not eligible for CALFED funding.*

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).# All anadromous fish species may benefit indirectly from this project. This proposed effort is consistent with Central Valley-wide Action 3 of the 1997 Revised Draft Restoration Plan for the AFRP, which reads: "Reduce toxic chemical and trace element contamination." However, the expected magnitude of benefit from this action to anadromous fish is unknown, largely because the current effect of selenium on anadromous fish is unknown. The assumption of benefits to anadromous fish is based on the premise that selenium removal from drainage water that enters the San Joaquin River downstream of Mendota Pool could effect natural production by improved water quality. The certainty of benefits is unknown and the benefits will be in the unknown future and continuous if selenium continues to be removed.*

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.# Chinook salmon spring-run are threatened as are steelhead while winter-run is endangered and fall and late fall are candidate species. Listed splittail and delta smelt, as well as both sturgeon species are expected to benefit if substantial reduction of selenium can be achieved and maintained. The San Joaquin River-Delta ecological communities with their multiple species could benefit from the project.*

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 is not expected to protect and restore natural channel values, but it is expected to improve chemical and biological processes, and promote more functional trophic processes as a result of a ?mechanical fix?. Should benefits accrue for anadromous fish, they would be anticipated to be long-term if removal process is maintained in the long-term, or at least until selenium reduction can be realized via other methods.*

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).# The project could contribute to efforts to modify CVP operation by improving the water quality of export supplies and aquatic biota in the San Joaquin River and Delta.*

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.# There is some potential that transported acquired water in the San Joaquin River would be of better quality due to improved water quality in the river and Delta itself.*

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 proposal is best funded by the Habitat Restoration Program ((b)(1) other) as the project relates to CVP impacts to the environment from Se on CVP contract (Service) lands. Removal of selenium would improve the water quality of the San Joaquin and Bay-Delta with potential benefits to the biotic community of those ecosystems. The magnitude of benefit is unknown. No specific information was provided as to the effect of selenium on the aquatic community making it difficult to quantify the benefits. A pilot facility was successful in removing 87% of influent total selenium. There is also a nexus to Central Valley-wide Action 3 of the 1997 Revised Draft Restoration Plan. AFRP funding is an option but the benefits to anadromous fish are likely indirect and the project does not promote natural channel and riparian habitat values in support of improved natural production of anadromous fish.*

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 project will further CALFED goals by providing a new, economical way to remove nutrients and selenium from drainage, based on research of the process funded under 98B14. Other related CALFED projects on San Joaquin River water quality and contaminant loads include 98C08, 99B16, 98B07, and 00B05. Information source: Proposal, CALFED tracking table.*

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.#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.#yes*

3d2. If the answer is yes, list previous-phase project number(s) here. If the answer is no, move on to item 4.#98B14 - Irrigation Drainage Water Treatment for Selenium Removal: Panoche Drainage District Demonstration Facility. (Project proponent for 98B14 is UC Berkeley)*

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.#maybe*

3e3. Please provide detailed comments in support of your answers, including source of information (proposal or other source):#Project 98B14 is in the second year of implementation and is progressing satisfactorily. Questions have surfaced regarding efficacy of the project, based on new methods for selenium removal being testing with CALFED funding, and the project will be discussed at an upcoming meeting. New methods under a directed action funded with Drinking Water Quality funds will remove selenium and salt. The Regional Water Quality Control Board may soon propose salinity standards on the SJR, so a process which removes both constituents is more cost effective. Need results of meeting before going into full implementation.*

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.# No discussion was made of specific support or opposition to this proposed action.*

ENVIRONMENTAL COMPLIANCE

4d. List any potential environmental compliance or access issues as identified in the PSP checklists.# Applicant filled out no local permits required. A grading permit may be required depending how much construction is to take place.*

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, for 3 years*

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, it is at 10%*

5d. Are project management costs clearly identified? Type yes or no.# Yes,
listed under Task 5. Requires 20,000 dollars per year*

**5e. Please provide detailed comments in support of your answers to questions
5a - 5d.# All information requested has been provided by project proponent in
a clear, concise, and understandable format***

COST SHARING

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

**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:# Panoche Drainage District: estimated to be a 20,000-60,000
dollar value for in-kind services over a 3 year period***

6c2. Matching funds:# n/a*

**6c3. Show percentage that cost sharing is of total amount of funding
requested along with calculation.# n/a***

**6d. Please provide detailed comments in support of your answers to questions
6a - 6c3.# Panoche Drainage District will contribute staff time at no cost to
CALFED***