

i. Proposal number:# 2001 - C-203.*

ii. Short proposal title .# Restoration of Delta Floodplain Terraces Through Bioengineering.*

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 project would likely make only a minor contribution to Goal 1 (at-risk species); Goal 2 (rehabilitate natural processes); Goal 3 (harvested species); and Goal 4 (protect/restore habitats).*

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.# 5 pts. These restoration sites tend to be pretty small, representing some habitat "band-aids," so they do not contribute significantly to wetlands acreage targets. Similarly, the biotic response to such small-scale restoration sites is uncertain, so the contribution to species-oriented goals is very unclear. It would be useful to gain a better understanding of the biotic response to such small-scale restoration sites, to better evaluate whether the benefits are worth the investment of funds. Better biotic monitoring and additional time to review the restoration sites already constructed could provide valuable information for evaluating this approach.*

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.# 5 pts. The proposed project would likely make only minor contributions toward process- and habitat-oriented objectives (2-3, 4-1, 4-2) because of the relatively small-scale of the restoration sites. We do not yet have a good feel for the biotic response to this restoration approach--whether the postage-stamp restoration sites provide any habitat value, either individually or cumulatively; consequently, the project's contribution to species-oriented goals (1-1, 1-3, 3-1, 3-2) is very sketchy at this point.*

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.# 0
pts. The proposed project does not respond directly to any action defined in the PSP.*

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.# 2 pts. The proposed project does not directly address a Stage 1 action, though it does mirror the intent of a Stage 1 action in the Delta-wide ERP/Levees bundle for in-channel island restoration.*

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.# .# 2 pts. Again, the biotic response to these small-scale restoration sites has not been demonstrated clearly, so it is difficult to make an assertion that the proposed project will make even an incremental contribution to recovering or maintaining sensitive 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.# 5 pts. Because of the number of different sites that are restored, the project provides a good opportunity to vary treatments and thereby enhance the experimental design of the project. The project proponent should be encouraged to incorporate an experimental approach that evaluates the effect of patch size and structure on biotic response.*

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.

5 pts. The proposal seems to highlight the limited opportunities we have to restore habitat in most Delta channels. We need a better understanding of the biotic response to the restoration sites that have been restored through previous CALFED funding before we can really assess the value of these small-scale restoration sites. The project proponent should be encouraged to submit a proposal to expand the monitoring associated with existing restoration sites to address issues about the biotic response to the small-scale restoration sites.*

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).

The natural production of all races of chinook salmon that spawn in the Sacramento River watershed and subsequently migrate downriver through the Delta should benefit from the actions in this proposal. The project is designed to develop new riparian habitat that is expected to provide habitat for fish and enhance biological productivity. The new habitat consists of approximately 9,500 linear feet along Delta levees (3,200 feet along Georgiana Slough; 1,000 feet along Steamboat Slough; 300 feet along Miner Slough and 5,000 feet along the Sacramento River at Brannan-Andrus Island and Grand Island). The expected magnitude of the contribution to natural production and the certainty of the expected benefits cannot be determined. The report indicates that the determination of the statistical significance of fisheries benefits is nearly impossible in the context of background "noise" of the factors affecting fish populations in the Delta and elsewhere. Therefore, scientific monitoring of fish populations will not be attempted for this project, although informal observations will be recorded. The presence of macroinvertebrates, considered to be surrogates for fish habitat quality, will be scientifically monitored, as their relatively sedentary, locally-based life history characteristics will provide a more reliable source of data. All work is anticipated to occur over a three-year period, concluding in 2003. The immediacy of the expected contribution will be realized at the completion of the habitat construction which is scheduled for fall 2002, while the duration of the expected contribution will be determined following monitoring and implementation of adaptive management strategies, which is scheduled to run through 2003.*

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.

Listed species, anadromous species and special status species expected to benefit from the implementation of the project include all anadromous salmonids, delta smelt, Sacramento splittail and longfin smelt. The program is anticipated to result in improved bank protection in Delta channels that in turn will reduce levee failure and enhance habitat values for macroinvertebrates and native fish species.*

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 protects and restores both natural channel and riparian habitat values, and promotes natural processes. A basic premise of this proposal is to create a more stable environment along Delta islands/levees by transforming sites from an erosional to a depositional environment which in turn will promote the establishment and sustenance of riparian vegetation. The project objectives include:

- protect remaining natural embankment from further erosion;
- reconstruct the natural berm environment either through the natural recruitment of new sediment (thereby constructing a new floodplain using natural means) or by the artificial addition of new soil fill; and,
- develop new riparian habitat through both planting and natural recruitment that will provide fish and wildlife habitat.

The immediacy of the benefits to natural channel and riparian habitat values will be realized at the completion of the habitat construction which is scheduled for fall 2002, while the duration of these benefits will be determined following monitoring and implementation of adaptive management strategies, which is scheduled to run through 2003.*

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).#

No evidence is presented to indicate whether/how the project would contribute to efforts to modify CVP operations. No such relationship is apparent.*

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.#

The project does not contribute to implementation of the supporting measures in 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 project is appropriate for funding support from the Anadromous Fish Restoration Program. The project could contribute to meeting the goal of the Anadromous Fish Restoration Program to increase the natural production of anadromous fish by increasing the amount and quality of available riparian habitat in the Delta, thereby providing additional high-quality favorable habitat for juvenile salmonids as they migrate through the Delta. A basic premise of this proposal is that by creating a more stable environment along Delta islands/levees through the process of transforming sites from an erosional to a depositional environment the establishment and sustenance of riparian vegetation will be promoted. This proposal is consistent with Sacramento-San Joaquin Delta Evaluation No.4 (Evaluate potential benefits of and opportunities for increasing salmonid and other anadromous fish production through improved riparian habitats in the Delta.) in the Revised Draft Restoration Plan for the Anadromous Fish Restoration Program, May 30, 1997; this is identified as a high priority in the draft plan. The strength of the proposal is that the entire process from evaluation of the problem to the development of potential solutions will be done in one contiguous effort and under the singular control of one program manager. The weakness of the proposal is that there is no method available to monitor the presence of fish attributable to the newly constructed habitat. Instead, macroinvertebrate usage will be monitored since these organisms are considered as a surrogate for fish habitat quality.

Note: Six hypotheses to be tested are identified on page 8 of the proposal. The first three hypotheses are to test whether the proposed action produces conditions greater/lesser than in the control, as appropriate to indicate favorable results. However, the last three hypotheses are simply to test whether the proposed action produces conditions which differ from those in the control. It is unclear why the last three hypotheses are structured to merely test whether a difference in outcomes occurs.*

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 builds on other Delta restoration projects and broadens experimental design of current projects (97-N13, 99-N03) on Georgiana slough and Mokelumne river, AB360 work on the Mokelumne river and a Corps project on Steamboat Slough. Source: Proposal and 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.#CALFED*

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.#
97N13 - Tyler Island Levee Protection and Habitat Restoration Pilot Project
99N03 - East Delta Habitat Corridor (Georgiana Slough)*

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 are on schedule and progressing well. 97N13 is constructed and monitoring is ongoing, 99N03 is under construction, with most of it complete. Source: Quarterly reports, annual monitoring report.*

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.# No opposition to the proposal is identified. Support for the proposal is presented in the form of letters from Reclamation District No. 3 and Reclamation District No. 999 which authorize the applicant to include erosion sites on their levees (pending approval of the study design by the respective boards of trustees). Brannon-Andrus Levee Maintenance District gave similar approval but was more effusive in its words of support and anticipation of mutually beneficial levee protection results.*

ENVIRONMENTAL COMPLIANCE

4d. List any potential environmental compliance or access issues as identified in the PSP checklists.# CESA compliance will be necessary and the environmental compliance checklist should reflect this under CESA Compliance.*

4e. Specifically highlight and comment on any regulatory issues listed above that may prevent the project from meeting the projected timeline.# The project will need to comply with CESA and this may require that the applicant seek an incidental take statement/permit with both the federal government and the State.*

COST

5a. Does the proposal include a detailed budget for each year of requested support? Type yes or no.#Yes, for three 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, overhead appears to be 0% as shown in Table 1*

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.#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:#n/a*

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.#n/a*