

Panel Scientific and Technical Review Form
(Note: Review comments will be anonymous, but public.)

Proposal number: 2001-C213

Short Proposal Title: Understanding Natural Processes

1a) Are the objectives and hypotheses clearly stated?

Summary of Reviewers comments: "The objectives and hypotheses are well stated and largely defensible."

Panel Summary: To the panel, the hypotheses were not clearly stated or responsive to the instructions in the Proposal Solicitation Package.

1b1) Does the conceptual model clearly explain the underlying basis for the proposed work?

Summary of Reviewers comments: "The applicants have taken the time to write a detailed outline of the factors they believe will determine the success of the project. As a consequence, it is easy to understand the basis for the proposed project and why different monitoring elements will be included."

Panel Summary: The panel was interested in sediment transport and interaction between vegetation and geomorphology, but the conceptual model emphasizes that the high terrace lands proposed for revegetation are not frequently flooded. As a consequence, although there is potential for successful revegetation in the three-year habitat development period, there will not likely be on-the ground data collection on the topics that this panel would like to have seen addressed.

1b2) Is the approach well designed and appropriate for meeting the objectives of the project?

Summary of Reviewers comments: "...the approach is biologically defensible."

Panel Summary: The focus of the monitoring is overwhelmingly on terrestrial effects. The panel would like to have seen a balanced investigation plan that took into account hydraulic, geomorphic and aquatic species effects.

1c1) Has the applicant justified the selection of research, pilot or demonstration project, or a full-scale implementation project?

Summary of Reviewers comments: "Yes. The following factors provide strong support for the restoration site: 1) natural processes do not appear to be working at the site; 2) the site is already owned by FWS; 3) restoration of this site will provide for a much more contiguous corridor and 4) the site is already flood prone, and therefore of little use for land use such as agriculture."

Panel Summary: This is apparently an implementation proposal. Although members of the panel are familiar with the work of the proponents, the proposal does not actually disclose the restoration plan that the proponents intend to develop. To some extent the proposal is an offer to perform restoration, and a request to CALFED to "Trust us."

1c2) Is the project likely to generate information that can be used to inform future decision making?

Summary of Reviewers comments: "Yes. This is a unique situation where natural processes are insufficient and "intervention" is needed to initiate restoration. Managers should benefit from data collected from this type of system."

Panel Summary: As stated in the previous section, there is no information provided to let the panel know the experimental design, the specific hypotheses tested by a proposed randomized block design of plantings, and the monitoring mentioned focuses on terrestrial biological effects, not sediment transport, hydrology, or aquatic life.

2a) Are the monitoring and information assessment plans adequate to assess the outcome of the project?

Summary of Reviewers comments: "... I was disappointed that I was unable to determine what the experimental design for this study will be. However, the list of factors to be monitored appear satisfactory."

Panel Summary: The panel felt the monitoring and information assessment plans for this proposal were not provided in the necessary detail.

2b) Are data collection, data management, data analysis, and reporting plans well described, scientifically sound and adequate to meet the proposed objectives?

Summary of Reviewers comments: See previous comments.

Panel Summary: See previous comments.

3) Is the proposed work likely to be technically feasible?

Summary of Reviewers comments: "One possible obstacle is the evaluation of flood impacts. It is unclear whether the applicants are aware that the Reclamation Board will be an important review agency for the project. Although I was heartened by their consultant's belief that this project will be "flood neutral", the study remains dependent on a quantitative analysis. What are the contingency plans if the hydraulics study shows at least modest negative impacts?"

Panel Summary: The panel agrees the planting work is technically feasible.

4) Is the proposed project team qualified to efficiently and effectively implement the proposed project?

Summary of Reviewers comments: "Yes, at most levels. However, it was unclear whether the team had the scientific qualifications to develop and evaluate such an experiment. Input from Chico State University (project cooperator Dr. Griggs) could be critical for this issue." "I was stunned that the applicants have essentially guaranteed a 70 percent vegetation success rate from the project. It was unclear why the applicants had such a high degree of confidence, but I would be very impressed if the project could deliver this success rate."

Panel Summary: These proponents have a track record that the panel thinks demonstrates they are qualified to plant trees, and potentially track growth and establishment of the plants. Their cooperators will be able to do terrestrial species monitoring. It is not clear that proponents have experience in hydraulic, geomorphologic, and aquatic biological monitoring. The absence of study design information is not reassuring.

5) Other comments

The panel thinks CALFED should help applicants for implementation projects understand what is being asked for in the sub-parts of Question 1. Implementation projects need to be presented differently from research or pilot projects if the proponents are trying to produce responsive proposals. The hypotheses on which full-scale restoration proceeds should have been thoroughly tested. The monitoring plan for a larger implementation project should be guided by the science or methodology used to test the hypothesis originally at the experiment or pilot project scale. In this example, the panel could not properly evaluate the proposals' scientific merit because details of the experimental and monitoring plans were not provided.

**Overall Evaluation
PANEL SUMMARY COMMENTS**

The proposal would likely result in revegetation on a site that presently supports low value habitat. The lack of experimental design and evaluation information convinced the panel this was not of especially strong scientific merit.

Summary Rating

- Excellent
- Very Good
- Good X
- Fair
- Poor

Your Rating: GOOD