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

Proposal number: 2001-C203 **Short Proposal Title:#_Restore Delta Floodplains through Bioengineering**

1a) Are the objectives and hypotheses clearly stated?

Summary of Reviewers comments:
"Both were clear and concise." "The hypotheses are also clearly stated.... However they are not posed in the traditional null hypothesis form and therefore it is not clear what exactly will be tested nor how the hypotheses will be tested.

Panel Summary:
This is more of a demonstration of techniques on sites of opportunity rather than an experiment that can be structured to test hypotheses.

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

Summary of Reviewers comments:
"...narrative and figures present a readily understandable conceptual model." "In the statement of the Problems Section is a narrative that describes previous work and research that form the underlying basis for the conceptual model.... However, a number of important references germane to the underlying assumptions are missing from this section. Therefore it is not clear whether this literature has been published and to what degree it has been peer reviewed...."

Panel Summary:
The conceptual model does not provide the underlying basis for the proposed work site selection, although it may guide the specific bioengineering practice applied to the site.

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

Summary of Reviewers comments:
"...a monitoring plan still has to be developed and therefore it is not possible to conclude from this proposal that the overall approach is sufficient for meeting the project objectives or addressing the hypotheses." "...proposed approach had few details, so it was hard for me to determine whether it is likely to meet project objectives."

Panel Summary:
The approach is well designed to meet the objectives of applying a variety of methods to sites with erosion. It is not well designed to address their effectiveness.

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

Summary of Reviewers comments:
"The applicant's selection appears to be justified." "The applicant has indicated that there are specific opportunities at the proposed sites for restoration that may be lost without corrective action."

Panel Summary:
This proposal is not clearly science or clearly investigation/implementation.

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

Summary of Reviewers comments:
"Ecologically sound bank restoration is one of the most important priorities for Delta channels. This appears to be a good opportunity to test various techniques in high energy channels." "...the project will generate valuable information related to wave/energy attenuation procedures, as well as information related to the success of different riparian planting methods."

Panel Summary:
We are concerned that after two years of CALFED funding for related work there were no reports submitted that could be used to assess the efficacy of the methods. The work proposed in this project does not have an experimental design that will fully evaluate the effectiveness of the installed measures.

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

Summary of Reviewers comments:
"...the monitoring and information assessment plans are not adequate to assess the outcome of the project. Monitoring plans still need to be developed." "This project is important and deserves a reasonably comprehensive study to be effective for adaptive management. I disagree with the author's assessment that documentation of fisheries benefits is virtually impossible. At the very least, basic comparative information could be collected on fish density, size, species composition and perhaps feeding success in restored versus reference sites. If possible, I recommend that the

applicants contact IEP or local universities (Sac. State, UCD) to see if there are aquatic biologists interested in this issue. "

Panel Summary:
Follow-up evaluation is missing. There is a lack of or minimally described monitoring plan. The site selection criteria are not clearly based on anything other than the convenience of the owner.

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:
"The data collection, management, analysis and reporting plans are only minimally described. Important details including handling and QC procedures, and basic descriptions addressing who, what, when, how and where questions are not included in the proposal." "One possible shortcoming of the approach is that it may not work or be easy to evaluate if the three monitoring years each have extreme hydrology. It may be difficult to evaluate project success if we have 3 consecutive years of drought."

Panel Summary:
This project, like most others suffers from limited understanding of the application of adaptive management. As a result, the data collection, management, analysis, and reporting are not clearly or well developed, in spite of the crucial importance of these items to an overall adaptive management effort.

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

Summary of Reviewers comments:
"Pilot projects in the Delta by the same contractor but in different areas have indicated success with the proposed work and some literature citations back up this conclusion. However, other literature that could back up the feasibility of the work is referenced, but not cited in the Literature Citation section." "...the author's detailed review of the literature suggests that the methods are likely to be feasible."

Panel Summary:
The measures proposed are feasible, but specific details are needed to see what will actually be done.

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

Summary of Reviewers Comments:
The team would be more complete with an aquatic biologist

Panel Summary:
This project would benefit from collaboration with scientists in designing an analysis procedure that would generate much more information of value to CALFED.

5)Other comments
The panel recommends a greater emphasis on post-installation monitoring, and to fairly determine environmental/hydraulic factors affecting sites, at a minimum, water level and wave gaging are necessary. As with other projects that have a history of CALFED funding, we expect proponents to be able to submit publications, references or documentation of ongoing evaluation of that work.

Overall Evaluation
PANEL SUMMARY COMMENTS

This is a potentially interesting demonstration but the panel was concerned the experimental design to test and evaluate the measures being demonstrated was not well developed.

Excellent
Very Good
Good
Fair X
Poor

Your Rating: FAIR