

**CALFED Bay-Delta 2002 ERP Directed Actions  
Selection Panel Review**

**CALFED Bay-Delta 2002 ERP Directed Actions -- Selection Panel Review**

**Proposal Number: 159**

**Applicant Organization: Stillwater Science**

**Proposal Title: Physical modeling experiments to guide restoration projects**

**Recommendation: Fund As**

**Amount: \$2,488,003**

**Conditions**, if any, of approval (if there are no conditions, please put "None"): None

**Provide a brief explanation of your rating:**

Following initial review of this proposal the selection panel indicated that the proposal did not address the connection between the flume experiments and past, ongoing and future restoration projects. The applicant responded with a letter indicating that it planned on looking at other projects; however, the panel requested the applicant to rewrite and resubmit the proposal addressing the issues raised by the Selection Panel and external reviewers.

The rewritten proposal addresses all concerns of the Selection Panel and reviewers. The applicant has done, and will continue to do, retrospective analyses, by reviewing past and ongoing river and channel restoration projects. With the assistance of a technical committee, applicant will use this information to improve the design of the flume experiments. The applicant also indicates that it will work closely with restoration practitioners to assure future use of the findings from its flume experiments that address dam removal, sediment transport and channel meander.

Although flume experiments are costly, and building of an improved flume is a major expense, this investment will provide commensurate benefits by applying lessons learned from experiments to future river restoration projects in the field.

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**Research and Restoration External Review Form**  
**CALFED Ecosystem Restoration Program 2002 Proposal Solicitation Package**

**Proposal Title:** Physical modeling experiments to guide river restoration projects

**Review:**

1. **Goals.** Are the goals, objectives and hypotheses clearly stated and internally consistent? Is the concept timely and important?

The goals, objectives, and hypotheses are clearly stated. The three restoration strategies that will be tested are relevant to Calfed's needs.

2. **Justification.** Is the study justified relative to existing knowledge? Is a conceptual model clearly stated in the proposal and does it explain the underlying basis for the proposed work? Is the selection of research, pilot or demonstration project, or a full-scale implementation project justified?

Conceptual models are clearly stated. In this revised proposal the authors strengthen the links to previous studies, including Calfed projects, as well as their justification for this new research. The authors clearly explain the background behind the restoration strategies and describe the shortcomings of our current state of knowledge.

3. **Approach.** Is the approach well designed and appropriate for meeting the objectives of the project? Are results likely to add to the base of knowledge? Is the project likely to generate novel information, methodology or approaches? Will the information ultimately be useful to decision-makers?

The approach is well designed and appropriate facilities are available to carry out this work. In this revised proposal the authors have demonstrated how the flume studies can be scaled up to actual river processes, and describe how they will build upon past flume studies.

4. **Feasibility.** Is the approach fully documented and technically feasible? What is the likelihood of success? Is the scale of the project consistent with the objectives?

The work plan is clear and technically feasible. Task 5a (channel/floodplain restoration experiments) will be using a new technique, but it has been tested on a smaller scale. The experimental design fits well with the stated study objectives.

5. **Project-Specific Performance Measures.** Does the project include appropriate performance measures to measure success relative to the project's goals and objectives? Is there enough detail as to how the performance measures will be quantified? For restoration projects, are monitoring plans explicit and detailed enough to determine if performance measures will be adequately assessed?

Several measures of performance are included, and a timeline lists when the expected outcomes should be completed. The authors will convene a technical review panel to oversee the experimental program and reports will be peer reviewed.

6. **Products.** Are products of value likely from the project? Specifically for restoration projects, are products of value also likely from the monitoring component? Are interpretative outcomes likely from the project?

The products include both formal scientific papers as well as several interpretive projects aimed more towards the lay practitioner. The web site that will serve as a clearinghouse of information on restoration strategies and the video should be helpful, as will the annual workshops describing

their progress. Guidelines for the three restoration strategies (gravel augmentation, dam removal and channel and floodplain redesign) will be formulated, and should be very useful to a broad range of practitioners and land managers..

7. **Capabilities.** What is the track record of applicants in terms of past projects? Is the project team qualified to efficiently and effectively implement the proposed project? Do they have available the infrastructure and other aspects of support necessary to accomplish the project?

The project team has worked on similar projects in the past and they have a strong reputation for solid and innovative research. The collaboration with UC-Berkeley is a plus, and the facilities are mostly in place to conduct the proposed research.

8. **Cost/Benefit Comments.** Is the budget reasonable and adequate for the work proposed?

The number of work hours is reasonable. Flume construction for tasks 3 and 4 (listed under Task 2) was \$942,958, which seems high for a modification of an existing flume. A new flume would be needed for Task 5, but most of the costs associated with that task are listed under ‘Services/Consultants.’ I’m assuming Task 2 also includes construction of the new experimental basin that will be needed for Task 5, which would account for the \$942,958 price tag. Calfed could choose to only fund the evaluation of two of the restoration strategies (Task 3 and 4) if funding was not adequate to cover the costs of the new flume required for Task 5.

**Miscellaneous comments:**

The focus of this review was to check if the revised proposal addressed the questions and shortcomings which were identified in the original proposal. The main topics which the revised proposal needed to address were: to show connections to ongoing studies, especially ongoing Calfed projects; to demonstrate how the type of flume studies and resulting models can be scaled up to actual river processes; to expand the citations of current literature; to explain more fully what new information will be generated by this study; to describe deliverables and cost sharing; and to submit a reworked budget. The revised proposal responded satisfactorily to these questions.

**Please provide an overall evaluation summary rating: Excellent: outstanding in all respects; Good: quality but some deficiencies; Poor: serious deficiencies.**

Overall Evaluation Summary Rating	Provide a brief explanation of your summary rating
- Excellent X	The proposed experiments are relevant to Calfed’s needs, and should help guide land managers in designing effective and cost-effective river restoration projects.
- Good	
- Poor	

***CALFED Bay-Delta Directed Action  
Administrative Review  
Budget Evaluation***

Proposal number: 159

Proposal title: *Physical modeling experiments to guide river restoration projects*

Does the proposal include a detailed budget for each year of requested support? Yes

If no, please explain:

Does the proposal include a detailed budget for each task identified? Yes

If no, please explain:

Does the proposal clearly state the type of expenses encompassed in indirect rates or overhead costs? Yes

If no, please explain:

Are appropriate project management costs clearly identified? Yes

If no, please explain:

Do the total funds requested (Form I, Question 17A) equal the combined total annual costs in the budget summary? Yes

If no, please explain (for example, are costs to be reimbursed by cost share funds included in budget summary).

Does the budget justification adequately explain major expenses?

If no, please explain:

Are there other budget issues that warrant consideration? No

If yes, please explain:

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