

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

**Proposal number: 2001-B203**

**Short Proposal Title: Invasive Spartina Project**

**Summary:** The proposed research addresses the spread of *Spartina alterniflora* in San Francisco and Suisun Bays by evaluating the current distribution of the exotic species and its hybrids. Genetic evaluation to identify hybrids is proposed. Preliminary control methods also will be tested, and some outreach will be completed (via mapping efforts and dissemination of these results). In addition, impacts on shorebirds will also be addressed.

**1a) Are the objectives and hypotheses clearly stated?**

***Summary of Reviewers comments:***

Yes, three clear objectives are identified. The hypothesis is also clearly presented.

***Panel Summary:***

The objectives are clearly presented; however, as indicated below, the proposal does not outline clearly how these objectives will be reached. Few details are provided detailing how objective #2 (scientific understanding of ecological engineering in SF Bay) or #3 (prevention of future invasions) would be accomplished. The hypothesis that is presented is not testable and does not relate specifically to the research that is proposed.

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

***Summary of Reviewers comments:***

The model is clear and provides the basis for the proposed work. One reviewer points out that little written explanation is provided for the model.

***Panel Summary:***

The model of habitat conversion is presented clearly in the text and figures, and it does indicate the concerns for genetic issues and eradication of *Spartina*.

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

***Summary of Reviewers comments:***

The reviewers felt that the approach for the research was clear and well designed.

***Panel Summary:***

The panel felt that the description of the approach for some components of the research is a considerable weakness. The explanation of the research approach is vague, and the integration of the different project components was poor. It is not clear what the field coordinators will do or how the “triage” of control will be done. Very few details are provided for the specific research projects, and the design of the experimentation is lacking. For example, where will plants be collected for genetic analysis? How many individuals, populations, and locations will be sampled? What will be done beyond a literature review to evaluate shorebird impacts? Is a substantial collection of literature available in this area? What size patches will be tested for control? Where will this be done? How will the control efforts be evaluated? We are left to assume that these details will be worked out if the project is funded.

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

***Summary of Reviewers comments:***

Yes, this proposal is justified as a demonstration project.

***Panel Summary:***

The proposed research is for a demonstration project. Given the current distribution of *Spartina alterniflora* in the South Bay and CALFED's focus in the North Bay, this appears appropriate.

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

***Summary of Reviewers comments:***

Yes, this project will provide important information for decision making, especially for issues related to hybridization and control efforts.

***Panel Summary:***

It is clear that this is a priority issue for decision makers; however, given the details that are lacking in outlining the proposed approach, it is difficult to evaluate what specific information the research would produce.

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

***Summary of Reviewers comments:***

Monitoring and assessment will be sufficient.

***Panel Summary:***

Details are provided for mapping and the creation of a database; however, the integration of monitoring and assessment for the other research components is lacking. Monitoring for the genetic research, control experiments, or the control efforts that will be coordinated with landowners is not indicated under any task.

**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:***

Data collections should be sufficient.

***Panel Summary:***

Few details are provided in this regard for most of the proposed research. Most of the data issues that are described relate to the mapping and website/database aspects of the proposal. Data collection and analysis for other components of the research are not well described.

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

***Summary of Reviewers comments:***

The proposed research is technically feasible.

***Panel Summary:***

It appears that the proposed research is feasible; however, given the lack of detail this is difficult to evaluate for some components of the research.

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

**Summary of Reviewers comments:**

Yes, the project team is well qualified to complete this research. This is one of the strengths of the proposal.

**Panel Summary:**

The project team is well qualified and has experience in research and/or management related to *Spartina*.

**5) Other comments**

The reviewers had overall evaluations of excellent, excellent, and very good to excellent.

The panel felt that the quality of the proposal presentation was highly variable, with some parts of the proposal being poorly prepared, especially with respect to scientific aspects.

**Overall Evaluation  
PANEL SUMMARY COMMENTS**

The proposal addresses an issue of concern. The problem of *Spartina alterniflora* in San Francisco Bay is significant, and efforts to prevent its establishment in new areas should be a high priority. However, the panel found the quality of this proposal to be highly variable. Significant particulars detailing how the work will be completed are lacking, and the link between objectives, hypotheses, and the proposed approach is unclear.

The panel felt that some components of the proposal were very strong and should be supported, while other components of the proposal were weak and not justified. Given this, we recommend that only specific parts of the proposal be funded. Specifically, we ranked the following components of the proposal:

Excellent:	genetics
Very good	alternative control experiments
Good	North Bay control efforts
Fair	education and outreach
Poor	mapping and database development; and shorebirds

The evaluation of hybrid distributions in the north Bay will provide important information for eradication. The panel felt that early detection of seedlings and removal of non-native or hybrid seedlings or newly established patches should be a high priority; however, it was not clear from the proposal how this would be done. Experiments to evaluate alternative control methods were also highly ranked. The panel felt that education and outreach would be beneficial, but it was not clear what specifically would be done in this area based on the proposal. We recommend that this component of the proposal be redesigned and resubmitted for consideration. The research evaluating shorebird impacts appears to be a literature review, and the panel felt that this would not be a high priority. The panel recommends that instead of a literature review, field-oriented research be completed to evaluate shorebird impacts, including a study of habitat use, shorebird feeding behavior, food resources and the effects of elevation (will shorebirds use areas following *Spartina* eradication if the elevation of these areas remain high?). The panel also felt that the mapping and database component of the research was weak with few identified benefits, especially given the substantial budget that was identified for this component.

Summary Rating

- Excellent
- Very Good
- XX  Good
- Fair
- Poor