

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

**Proposal number: 2001-H209**

**Short Proposal Title: Digital Soil Survey Mapping  
and Imagery**

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

*Summary of Reviewers comments:*

Both reviewers find the objectives and hypotheses to be clearly and succinctly stated. However, one reviewer felt that the hypothesis is somewhat flawed, as it states that the soils information now available only in hardcopy is not used very much and, if digitized and made available on GIS, would be used more widely. This reviewer also states that the applicant places too much emphasis on soils-based information being the critical component of restoration activities, etc. The other reviewer agreed with the applicant regarding the importance of using soils information in designing restoration projects.

*Panel Summary:*

The panel agrees that the objectives and hypotheses are clearly stated.

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

*Summary of Reviewers comments:*

One reviewer states that the model does not justify the project; just because soils information isn't digitized doesn't mean it can't be found and used. The other reviewer finds the conceptual model to be presented in a logical fashion that clearly explains the underlying basis for the proposed work.

*Panel Summary:*

The model is appropriate and clearly stated. It places soil within the context of watershed science by linking soils to species, flows, channel dynamics, etc. The model somewhat overstates the difficulty of using soils survey on hard copy, but it does fairly emphasize the benefits of making spatial soil information available in digital format.

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

*Summary of Reviewers comments:*

Both reviewers find the proposal to be well designed and appropriate for meeting the project objectives.

One reviewer also noted that the proposal appropriately identifies some of the potential scientific uncertainties identified in the ERP plan that a knowledge of soils will help to address.

**Panel Summary:**

The panel agrees with the reviewers. The approach likely will lead to the production of high quality digitized maps.

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

*Summary of Reviewers comments:*

One reviewer states that the applicant hasn't justified the expenditure of more than \$1 million to digitize information. The other reviewer states that the applicant has justified full implementation of the proposal because of demonstrated success with past projects of a similar nature.

*Panel Summary:*

The panel finds that the applicant has justified the proposal as a full-scale implementation project, although the project proposal also has aspects that may be considered as monitoring, research, education, etc.

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

*Summary of Reviewers comments:*

Both reviewers agree that the project will generate information that can be use in future decision making.

One reviewer states that this is one of the most important aspects of the project.

*Panel Summary:*

The panel agrees with the reviewers. We especially note that the preparation of digitized soil maps will facilitate the distribution of soil surveys, especially older surveys that are now out of print.

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

*Summary of Reviewers comments:*

One reviewer states that the monitoring and assessment plans are probably adequate. The other states that design probably will be adequate.

***Panel Summary:***

There isn't any monitoring of the tasks identified in the proposal. The applicant should be required to submit regular progress (quarterly) reports, and funding should be tied to the steady progress of the work tasks.

**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:***

Both reviewers state that the proposal is scientifically sound and adequate.

***Panel Summary:***

Panel agrees.

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

***Summary of Reviewers comments:***

Yes.

***Panel Summary:***

The panel believes that the proposed work is technically feasible.

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

***Summary of Reviewers comments:***

One reviewer believes the NRCS

***Panel Summary:***

The panel believes that the NRCS has a good track record in preparing soils maps and extensive experience in developing projects with GIS. However, we believe the specific team members should be identified before CALFED decides to fund any of the proposed work.

**5) Other comments**

One reviewer believes the proposal should not be funded by CALFED; the proposal "would merely bring NRCS into the electronic data world" using someone else's money; no new information would be generated.

**Overall Evaluation**  
**PANEL SUMMARY COMMENTS**

The panel recognizes that NRCS is the logical entity to do the proposed work. The work would do capacity building throughout much of the CALFED area. Given the high cost of the proposed project, we recommend that, rather than funding the entire project, CALFED should request NRCS to prioritize the soil areas according to risk, probability of being an area where restoration projects will be proposed, and identified potential benefits to the Bay-Delta ecosystem. The funding of the proposal by CALFED would be considered by some to be good public outreach.

The panel finds the proposal to be technically sound and recommends that it be funded; however, it should be funded in phases so that CALFED can carefully monitor progress throughout the project period.

Summary Rating

- Excellent
- Very Good
- Good
- Fair
- Poor

Your Rating: **VERY GOOD**