

**Establishment of a Scientific Review Panel
for the CALFED Ecosystem Restoration Program Plan (ERPP)
May 8, 1997**

I. Introduction

The CALFED Bay-Delta Program intends to convene a scientific review panel in July 1997 with the objective of bringing forth the best available scientific expertise to evaluate the Ecosystem Restoration Program Plan (ERPP). This effort responds to requests by various stakeholders and the BDAC Ecosystem Restoration Work Group to convene an independent scientific review of the ERPP.

Bay Delta staff are working with a CALFED steering committee to develop the scientific review panel process and select panel members. The steering committee includes staff from USFWS, USGS, USBR, EPA, DWR and DFG. Bay Delta staff are also obtaining stakeholder and public input into the process through the BDAC Ecosystem Restoration Work Group.

II. Focus of the Scientific Review

The focus of the facilitated review is the entire ERPP, with particular emphasis on the linkages between the logic, methodology, and analysis supporting the Ecosystem Restoration Program Plan (ERPP). This will necessarily require review from the perspectives of multiple disciplines including:

- (1) landscape ecology
- (2) physical processes--hydrology and geomorphology
- (3) aquatic resources
- (4) riparian and terrestrial resources

The focus will be on the underlying hypothesis and the rationale behind the implementation objectives. Additionally, the panel may also provide recommendations on other process type issues.

III. Objectives of the Process and Outcomes Anticipated

The overarching goal is to assess and evaluate the scientific validity and rationale of the recommendations contained in the ERPP. This will in turn create the dual benefits of building broader support for the ERPP and strengthening the prospects for effective implementation of the program. Some of the specific results anticipated from this review process are:

- Identification of primary areas of scientific agreement and areas of disagreement;
- Assessment and evaluation of the scientific validity and rationale of the underlying hypotheses and implementation objectives embodied in the ERPP;
- Advice on the presentation and structure of ERPP; and
- Recommendations for structuring the future adaptive management strategy.

IV. Overview of the Proposed Structure

Figure 1 illustrates the steps in this proposed facilitated scientific review process. The proposed structure of the scientific review is as follows:

Frame questions to be addressed. In coordination with the CALFED agency steering committee, and the BDAC Ecosystem Restoration Work Group, CALFED staff will develop a list of questions and issues for the scientific panel to use during its review. It would be a daunting task to expect scientists unfamiliar with the Bay-Delta system and its unique problems to review the entire document with multiple targets and actions and provide a meaningful review.

Establish a panel of independent scientists who are well qualified to address these questions. A panel of nationally recognized scientists will be selected to address specific questions. It is anticipated that a single panel approach will be used, however, the panel may break into subgroups to address specific topical areas. The panel will be comprised of approximately 8 to 12 scientists with broad expertise in ecosystem restoration or conservation management.

Recruit technical advisors with expertise in the Bay Delta system to assist the panels in their review. A group of technical advisors will be assembled to assist the scientific panel in its review. The technical advisors will include technical experts from the agencies, stakeholders and local universities who have played a significant role in the development of the scientific issues in the Bay-Delta system.

Meet over a period of several days to develop recommendations. Over a 3-4 day period the panel (and subgroups if necessary) would meet and participate in a facilitated scientific review with observation and interaction with interested stakeholders, CALFED staff, and other technical experts. An effort would be made to document areas of scientific agreement and to establish the basis for remaining areas of disagreement and uncertainty. Figure 2 outlines the sequence of activities envisioned for the workshop.

Prepare a written report. The panel members will submit a written report with recommendations and a summary of the joint discussions to the Ecosystem Restoration Workgroup for comment, to BDAC for discussion and deliberation, and finally to CALFED.

V. Proposed Criteria for Recruitment of Panelists

Panelists should: (1) not be stakeholders or advocates in the CALFED process; (2) have advanced degrees and an established record of research and publication in one of the four resource topics; and (3) have a track record of providing scientific input into public policy.

VI. Sample Questions to be Addressed by the Scientific Panel

CALFED will be developing a list of questions to put before the panels regarding the ERPP. Listed below are *examples* of questions that may be asked. The questions are grouped in four categories.

PRIME QUESTION: Is the ERPP's landscape view and approach to ecosystem restoration sufficient to guide the recreation of ecological health in the Study Area?

- At the landscape level, does the ERPP's identification of important ecological processes sufficiently encompass the physical/environmental framework needed to successfully lead to ecological health?
- At the landscape level, is the ERPP's hypothesis that restoration of ecological processes will lead to improved habitat for fish, wildlife, and riparian communities in the Study Area adequate?
- At the landscape level, is the ERPP's hypothesis that restoration of habitats will contribute to restoration of important fish, wildlife, and plant communities correct?

- At the landscape level, is the ERPP’s priority for reducing or eliminating stressors that adversely affect ecological processes (priority 1), habitat (priority 2), and species (priority 3) a sufficiently robust or appropriate approach to ecosystem restoration?
- At the landscape level, has the ERPP identified a large enough Study Area to successfully restore ecological health to the system?
- At the landscape level, is it possible to restore ecological health to the ERPP Study Area and Sacramento-San Joaquin Delta in light of the constraints in the system, degradation of ecological processes and habitats, and low populations of important anadromous, estuarine, and freshwater fish species.

2° QUESTION: Is the ERPP’s designation and boundary lines for the ecological zones appropriate in the context of landscape ecology and restoration?

- At the zone level, are the zonal boundaries adequate to encompass ecological process, habitat, and species issues and concerns at the next level below the landscape level?
- At the zone level, do the boundaries adequately encompass physiographic regions and fish, wildlife, and plant communities?

3° QUESTION: Does the ERPP’s designation of ecological units within the ecological zones make sense and from an organizational perspective do the unit designation contribute to the understanding of system complexity and reveal potential approaches to restoration?

- At the unit level, does the ERPP’s designation of ecological units adequately identify ecologically distinct areas within the ecological zone?
- At the unit level, does the ERPP’s approach of identifying important ecological processes, habitats, species, and stressors provide a strong foundation for developing restoration targets and actions?
- At the unit level, will the cumulative benefits of restoring ecological processes and habitats lead to ecological health at the landscape level?

4° QUESTION: Assuming that the ERPP's approach to restoring ecological health focuses strongly on processes and habitats, what are the caveats regarding the assumption that fish, wildlife, and plant communities will respond in a favorable manner?

- What is the value of emphasizing the reduction of stressors in the short-term versus immediate implementation of longer-term restoration efforts? (Does it make sense to expend much staff time and money on long-term programs to provide levee set backs early in the program as opposed to short-term projects to immediately install positive barrier fish screens on diversions?)
- Is there a supportable balance to weighing program emphasis in the short-term versus the long-term? (Is there a long-term ecological benefit from immediately remediating stressors that cause direct and indirect mortality to important species versus efforts to restore important ecological processes which can create and maintain important habitats?)
- In which areas is the ERPP proposing to treat symptoms of poor ecological health rather than the underlying cause of the problem?
- The ERPP has identified indicators of ecological health for the Study Area. Is the list too narrow? What are the landscape level indicators of ecological health?
- Given that the ERPP has "incomplete information" regarding causes and solutions related to the ecological health of the Study Area, is there a way to predict whether the proposed approach to adaptive management, focused research, and monitoring will provide the necessary feedback to modify and improve the ERPP restoration effort?

VII. Opportunities for Stakeholder Involvement in the Facilitated Scientific Review Process

Stakeholders will have the following opportunities to review, comment on, and contribute to the proposed facilitated scientific review process:

- review and discussion of the proposed approach at BDAC Ecosystem Work Group meetings;

- opportunity to submit draft questions for scientific panel deliberation;
- opportunity to comment on criteria for panel recruitment;
- opportunity to nominate prospective panelists;
- participation in question and answer sessions of the facilitated workshop, together with the opportunity to observe panel deliberations;
- review and discussion of draft panel report at BDAC Ecosystem Work Group meetings.
- comments from stakeholders will be included in the final panel report.

VIII. Proposed Time Line

The time line must be keyed to both the release of the ERPP itself and to the necessary lead time to recruit panelists and enable them to prepare effectively for the facilitated workshop. Final preparation steps for the facilitated scientific review will be accomplished in the next four to six weeks, including recruitment of panelists.

The ERPP is slated to be released on June 16. As soon as the document is available, a packet will be assembled to initiate the panel deliberations. The panel will then meet in July 1997. A draft report from the panel, together with a summary of the plenary discussions, would be submitted to the BDAC Ecosystem Work Group in late July or August.

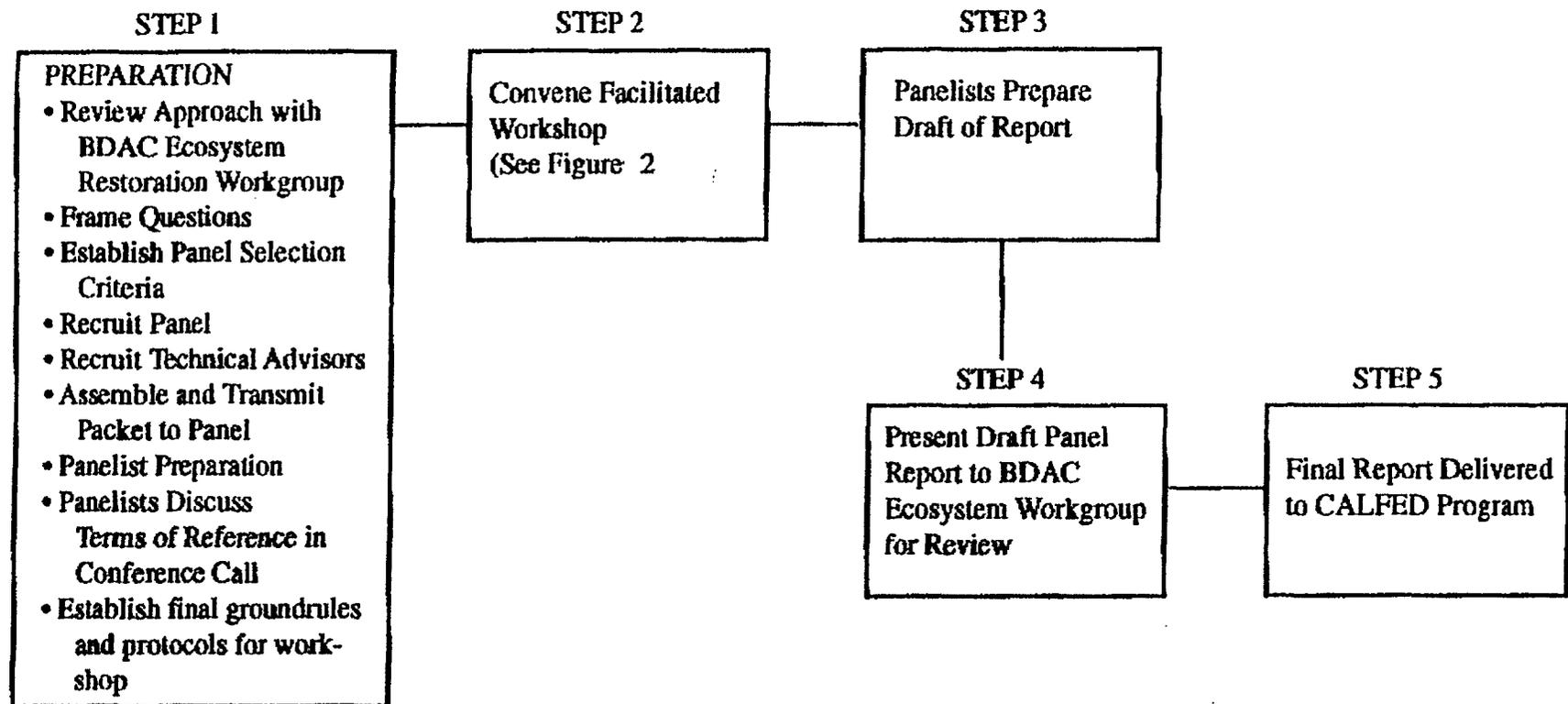
FIGURE 1: FACILITATED SCIENTIFIC REVIEW OF THE ERPP

FIGURE 2: DRAFT FORMAT OF THE 4-DAY WORKSHOP

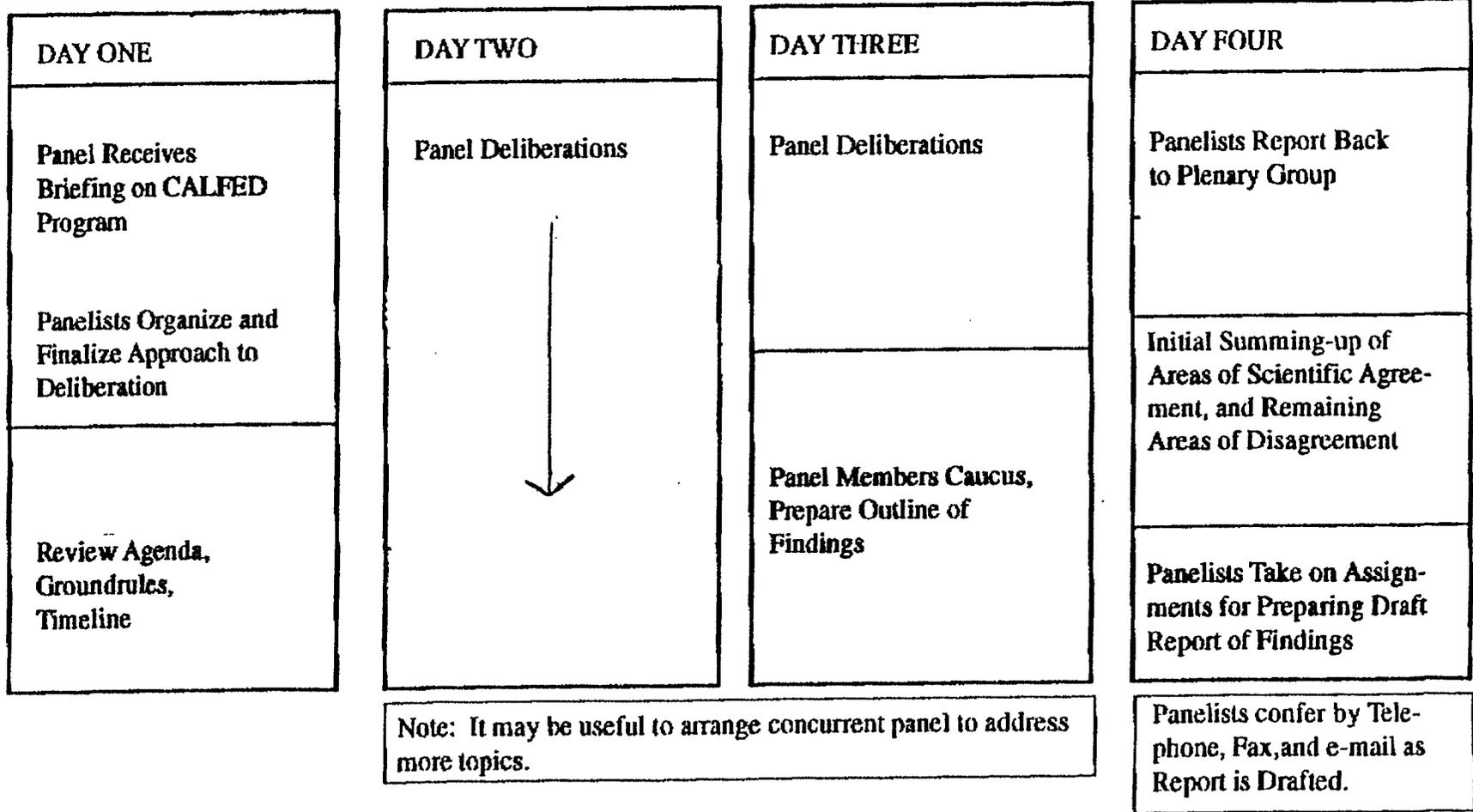


FIGURE 2
Draft 4/24/97