Charge to the CALFED Science Program Independent Review Panel for the "2-Gates Fish Protection Demonstration Project"

Orientation and Focus

The 2-Gates Fish Protection Demonstration Project (Project) has been proposed as an adaptive management experiment using infrastructural modifications (operable gates) for protection of sensitive species and management of water supply. The project seeks to provide equal or improved protection to delta smelt (reduced entrainment at the export pumps) with higher than the minimum allowed water exports described in the Operations Criteria and Plan (OCAP) Biological Opinion (BO) Reasonable and Prudent Alternatives (RPAs) while operating within the other water management requirement (D-1641). The project will show with field data that gates can be installed and operated in two key channels in the central Delta in order to control flows to meet these goals. The project proponent has assembled a summary document that describes the project goals and objectives, hypotheses, conceptual model, and adaptive management framework.

This review will focus on:

a) the adequacy of the assembled information as justification for such an experiment;
b) an assessment of the proposed data collection, synthesis protocols, and performance measures for determining the success of such an experiment, and;
c) the likelihood for achieving the stated objectives of the adaptive management experiment.

Materials to be Reviewed

- 2-Gates Fish Protection Demonstration Project Summary Document and Technical Appendices
- 2-Gates Fish Protection Demonstration Project Draft Biological Assessment

Scope of Review

The Review Panel will be charged with assessing the 2-Gates Fish Demonstration Project Proposal from several points of view, with emphasis on an evaluation of the proposal as an experiment in reducing fish entrainment. The Panel will be asked for input with respect to monitoring, data collection, evaluation, models, and methods, which will be used by the project proponents to improve the experimental process. In general, the panel will provide helpful suggestions for improved project approach and evaluation. Specific attention will be applied to the following criteria:

Project Purpose

- Are the goals, objectives and hypotheses clearly stated and internally consistent?
- Is the selection of the demonstration project approach justified?
- Are results likely to add substantively to the base of knowledge? Is the project likely to generate novel information, methodology, and understanding?

Background

- Is a conceptual model clearly stated in the proposal and does it explain the underlying basis for the proposed demonstration project?
- Is adequate information provided and presented to understand the basis for the proposed demonstration project?

Approach

- Is the study approach well designed and appropriate for meeting the objectives of the project?
- Are the specifications for monitoring, assessment, and modeling of project performance and evaluation clearly identified? Will implementation of the proposed monitoring, assessment and modeling plan lead to adequate assessment of project performance? Are the metrics likely to be sensitive enough to detect effects of gate operations? Are adequate resources provided for project monitoring, assessment and evaluation?
- Are the proposed performance measures and project management and oversight adequate for successful adaptive management of this project?
- Are products improving understanding of system dynamics likely from the project? Is there a plan for widespread and effective dissemination of information gained from the project? Are contributions from this project contributory to and cooperative with other projects and programs within the region?
- What additional elements could be added to assist in meeting the objectives of the demonstration project? How can the proposed approach for monitoring, data collection, and evaluation be improved? Will the demonstration project yield scientific results that will inform managers about the suitability of the project as a permanent undertaking?

Feasibility

- Is the approach well documented and technically feasible?
- What is the likelihood of the demonstration project successfully achieving project objectives?
- Is the scale of the project and the measurement program consistent with project objectives and goals?

Review Panel Membership:

Dr. Stephen Monismith – *Stanford University, Environmental Fluid Mechanics*
Dr. James J. Anderson – *University of Washington, Fisheries Ecology*
Dr. Charles "Si" Simenstad – *University of Washington, Estuarine Ecology*
Dr. Alan F. Blumberg – *Stevens Institute of Technology, Ocean Engineering*
Dr. Peter Goodwin, P.E. – *University of Idaho, Ecohydraulics*

Proposed Workshop Presentations

- Project Proponents
- FWS/NOAA Presentations on Regulatory Context

Review Timeline and Deliverables Schedule

A one day Review Panel Workshop is scheduled for August 6, 2009 in Sacramento, CA. The morning of the first day of the workshop will include public presentations from the project proponents and interested agencies, interaction between the panelists and project proponents, and public comment. The panel will meet in private in the early afternoon to prepare their initial responses to the charge. The panel will present an outline of their responses in the late afternoon followed by interaction between panelists, project proponents, agency representatives, and the public. The Review Panel will submit their report one month after the public workshop (early September 2009).