

Charge for Peer Review of the CALFED Water Quality Program Stage 1 Final Assessment

Background

The CALFED Bay-Delta Program (CALFED) is a joint state-federal effort with four goals: to improve water supply reliability, water quality, and levee reliability, and to restore the largest estuary on the West Coast. The CALFED Water Quality Program (WQP) focuses on drinking water quality and indirectly on agricultural water quality. Ecosystem water quality is implemented under the Ecosystem Restoration Program. The WQP is jointly implemented by the U.S. Environmental Protection Agency, the California Department of Health Services, the State Water Resources Control Board, and the Regional Water Quality Control Boards, in coordination with the California Department of Water Resources, U.S. Bureau of Reclamation, and the U.S. Geological Survey. The CALFED Bay-Delta Public Advisory Committee (Water Quality Subcommittee) closely coordinates with and provides advice to the WQP agencies on CALFED actions.

The guiding documentation for CALFED is the Record of Decision (ROD) for the Programmatic Environmental Impact Statement and Report (PEIS/EIR). The ROD lays out a 30-year plan to meet program objectives for the four program goals. The Preferred Program Alternative chosen in the ROD employs a through-Delta approach to conveyance. CALFED agencies agreed in the ROD that this conveyance approach would be monitored and then assessed at the end of Stage 1 (Year 7) to determine whether it is meeting the Program's goals and objectives.

The ROD outlines a general water quality goal of "continuously improving Delta water quality for all uses, including in-Delta environmental and agricultural use" and includes specific water quality milestones and implementation actions for water quality improvement. The primary purpose of the CALFED Water Quality Program Stage 1 Final Assessment Report (Final Assessment) is to assess the progress made by the WQP towards meeting CALFED water quality targets and alternative treatment technologies. The Final Assessment builds on previous CALFED water quality reports for the ROD (initial assessment, treatment, and technical assessment) and also addresses water quality issues identified through more recent Delta planning efforts (Delta Vision).

The Final Assessment also provides:

- Drinking water quality context for the End of Stage 1 conveyance alternatives.
- Integration and synthesis of scientific information on Delta drinking water quality from the source to the tap.
- Priorities for water quality actions for Stage 2.
- Initial WQP performance measures to move the program to a performance-based program in Stage 2.
- Documentation for past and future drinking water decision-making.

Peer Review Charge

The overall goal of this peer review is to assist the CALFED WQP and the CALFED Water Quality Subcommittee in evaluating the overall adequacy of the findings, conclusions and recommendations in the Final Assessment and the information used to support them. The peer review panel (RP) will provide a written review that focuses on the strengths and weaknesses of the Final Assessment Report and Appendices.

The RP will focus on the following subject areas and questions:

- 1. Information Gathering:** Has the most appropriate scientific information been used in developing all technical areas? Are the methods of collecting information (existing or new) understandable, scientifically defensible, fully documented and the best available? What information (e.g. data, conceptual models, etc.) was not considered that should have been presented or addressed?
- 2. Information Analysis and Results:** Have processes and methodologies (e.g. analyses of data) been used that are understandable, scientifically defensible, fully documented and appropriate? What results are missing that could reasonably be obtained? Are the modeling and risk analysis approaches employed defensible and consistent with other large scale projects elsewhere in the nation and internationally?
- 3. Findings and Recommendations:** How well are the key findings and recommendations supported by the stated data, methodologies or conceptual models, and analysis results? Do the findings and recommendations sufficiently address the level of progress made by the WQP for Stage 1?

The RP will also provide specific focus on the following topics areas:

- 4. Conveyance:** Are the findings and recommendations regarding the role of conveyance in meeting the water quality objective valid?
- 5. Stage 2 Priorities:** Do the identified priorities follow logically from the findings and recommendations. Are there additional critical knowledge gaps?
- 6. Approach for “equivalent level of public health protection”:** In the CALFED Bay-Delta Program Record of Decision (2000) the goal of the WQP is to provide “safe, reliable, and affordable drinking water in a cost-effective way,” with a target to “achieve either: (a) average concentrations at Clifton Court Forebay and other southern and central Delta drinking water intakes of 50 µg/L bromide and 3.0 mg/L total organic carbon, or (b) an equivalent level of public health protection using a cost-effective combination of alternative source waters, source control, and treatment technologies.” Is the approach taken to determining if an “equivalent level of public health protection” has been achieved appropriate? Are there other ways to evaluate progress towards this goal?
- 7. Treated water quality:** Are the conclusions about linkage between source water quality and treated water quality valid? Are additional treated water quality data and analysis of needed?

8. Performance Measures: Are the identified performance measures sufficient and appropriate for the stated goals of the program?

Water Quality Review Panel Members

The RP will consist of 4 nationally renowned water quality scientists and engineers who together cover the breadth of relevant issues needed to ensure a thorough evaluation of the Stage 1 Final Assessment. The RP will include members who are selected expressly for their expertise and reputation in water quality, civil and hydraulic engineering, hydrology, infrastructure analysis, water quality treatment and water management. One RP member will serve as a lead reviewer. The lead reviewer will conduct the same review as the other RP members and also facilitate and coordinate completion of the reviews. The lead reviewer will also complete a summary and synthesis of the RP comments. The lead reviewer will travel to Sacramento and present a summary of the RP comments to CALFED staff and the CALFED Water Quality Subcommittee. The RP will be formed in the context of the CALFED Bay-Delta Program's normal concerns for conflict of interest and bias to ensure a balanced and objective review.

Review Schedule and Products

- RP receive Peer Review Charge and Stage I Final Assessment (hard and electronic copies) by April 11, 2008.
- Lead reviewer facilitates completion of the RP comments.
- RP provides comments to lead reviewer by May 16, 2008.
- Lead reviewer prepares draft synthesis summary of comments and distributes to RP.
- Lead reviewer identifies discussion issues and, if necessary, convenes teleconference to clarify issues with panel members.
- Lead reviewer provides final review comments (synthesis summary from lead reviewer and attached panel member comments) to CALFED Science Program by June 13, 2008.
- The lead reviewer will travel to Sacramento in July, 2008 and present a summary of the RP comments to CALFED staff and the CALFED Water Quality Subcommittee. The specific date for the presentation will be determined.
- The peer review report, and any response to the report, will be attached to the Final Assessment Report as an Appendix.
- The peer review report will be made available to the public and posted on the CALFED Science Program website, and provided as a hard copy upon request.