

Charge for Mercury Technical Review Panel

The CALFED Bay Delta Program is a coordinated effort by state, federal and local agencies to improve water supplies in California and the health of the San Francisco Bay – Sacramento – San Joaquin River Delta Watershed. In 2000, the agencies drafted a 30-year plan described in the CALFED Record of Decision. The plan sets general goals and describes a science-based planning process through which the agencies can make better, more informed decisions on future projects and programs within their jurisdictions. The major objectives of the program include: 1. to improve water supply reliability 2. to improve levee system integrity 3. to restore ecosystem health 4. to improve water quality for all beneficial uses. The California Bay Delta Authority (CBDA) (and its 11 program elements) is a state agency that is responsible for oversight and coordination for the CALFED Bay Delta Program.

The Ecosystem Restoration Program, one of the CBDA program elements, has been administering grants to improve ecosystem health and recover at-risk species. The overall goals outlined in the strategic plan for the Ecosystem Restoration Program for the Bay-Delta System are (1) to assist and recover at-risk native species, (2) to rehabilitate the Bay-Delta to support native aquatic and terrestrial biotic communities, (3) to maintain or enhance selected species for harvest, (4) to protect and restore functional habitat for both ecological and public values, (5) to prevent the establishment of additional non-native species, and (6) to improve or maintain water and sediment quality. Success in achieving most of these goals will hinge partly on the behavior and mitigation of mercury in the ecosystem, given that methylmercury contamination and exposure can adversely affect the health and reproductive success of native fish and wildlife, can diminish the benefits derived from fisheries, can degrade the quality of water and sediment, and can pose health risks to humans who eat significant amounts of contaminated fish or shellfish from the ecosystem.

A “Mercury Strategy for the Bay-Delta Ecosystem: A Unifying Framework for Science, Adaptive Management, and Ecological Restoration”¹ was developed in 2002-2003 by a team of independent scientists, with input from many regional researchers, managers and stakeholders. The mercury strategy contains recommendations organized in 6 core components and suggests general guidelines for overall management of the mercury projects. The mercury strategy emphasizes the critical need for synthesis, transfer, and sharing of information from ongoing and recently completed investigations. The strategy also recommends that these activities be actively facilitated, given the importance of rigorous interdisciplinary interpretation and the need to provide timely information for adaptive management.

To date, the Ecosystem Restoration Program has invested more than \$30 million dollars in mercury-related research, monitoring, outreach and public education, with about \$25 million devoted to ongoing projects. An annual technical review is needed to provide a forum for coordination and synthesis of the mercury research, for assessing progress to date, and for sharing relevant information with managers, to manage ecosystem restoration adaptively.

Charge for review of the Ecosystem Restoration Program mercury projects:

The Panel's charge is to evaluate and comment on the technical information, analyses, results and conclusions from the mercury-related research and monitoring projects. The Panel should consider these results and conclusions given the program goals, the constraints on resources, and other administrative limitations. The Ecosystem Restoration Program would like feedback on the following levels: project-specific feedback, overall program feedback, and a brief synthesis of findings considered most relevant to restoration managers.

Specific questions the panel should consider:

Project specific feedback:

- Are the project goals and approaches consistent with the approaches recommended in the mercury strategy? Comment by Jim Wiener: the strategy document is a useful guidance document, but it should not constrain other pertinent scientific work of equal or greater value to the program. If all goes well, the strategy document should become obsolete in less than a decade.
- Do the project design and results support further understanding of relevant scientific hypotheses related to the management or remediation of mercury in this ecosystem?
- Are there steps that could be taken to enhance specific projects to support testing of hypotheses relevant to the management of mercury in this ecosystem?

Program level feedback

- Are we making substantive progress in understanding the sources and behavior of mercury in this ecosystem and in identifying potential management options for reducing methylmercury exposure?
- Are there steps that could be taken to enhance the overall coordination and integration of findings between the research groups and to better inform agency managers of key findings?
- Are there key uncertainties or limitations that are not being addressed?

Synthesis of key findings:

- What are the key findings that would be most relevant to managers involved in restoration planning in Bay-Delta marshes and rivers?

Procedure: Prior to the annual review, panel members will receive a summary report from each of the 8 mercury-related projects, as well as a copy of the Mercury Strategy for reference. These should be read before coming to the meeting. During the meeting, time will be allotted for the panel to convene privately, to discuss and develop recommendations. We would like the panel to present its initial comments to the group before the end of the workshop. The panel's recommendations should be summarized in a Powerpoint or Word document that can be created during the course of the workshop. Additional written comments from the panel may be submitted after the workshop, but the intention is that most of the recommendations be given before the workshop adjourns.