

Attachment F2

*** MEMORANDUM ***

February 10, 2004

TO: Independent Science Board (ISB) of the California Bay-Delta Authority (CBDA)

FR: Gary Bobker, Program Director, The Bay Institute

RE: Recommended ISB Priorities

Unfortunately, I was not able to attend the first meeting of the new ISB. Because of our strong interest in the ISB's mission, I have prepared a brief summary of the recommendations we had planned to make at this meeting regarding priorities for the ISB to consider as it begins its work.

1. Scientific review of non-ecosystem program activities needs to be improved. The Ecosystem Restoration Program has been the subject of extensive independent scientific review from its inception. By contrast, independent review of other CALFED program elements has been inconsistent and insufficient. CBDA implementation activities involving water supply infrastructure and management, levee maintenance and modification, water quality protection and other areas deserve closer, more consistent outside scrutiny for both fundamental scientific assumptions and specific technical design parameters.
2. A better scientific understanding of the interaction between discrete CALFED program elements needs to be promoted. There is at present no adequate process for assessing cross-program synergies and conflicts in a comprehensive fashion, in order to identify critical scientific uncertainties associated with these integration issues and to recommend the allocation of program resources to internal and external science review activities to address these uncertainties. The ISB can and should play a significant role in developing an approach to facilitate cross-program integration of scientific issues.

3. The decision-making structure for utilizing adaptive management results needs to be better articulated and formalized. There is universal agreement that the adaptive management conceptual model (crudely, hypothesis-testing project design, adequate monitoring, periodic performance assessment and a feedback loop to ongoing implementation decision) is the correct approach. It is unclear, however, exactly how or even whether an actual feedback mechanism back to the decision making process exists under the current CBDA process. The ISB should offer guidance as to how specific science-based recommendations to modify program implementation should be made (see below).
4. A more sophisticated model for dealing with future decisions regarding scientific uncertainties should be developed. Currently, most decisions regarding scientific uncertainties are described in broad terms and then simply deferred pending the outcome of further targeted research or formal environmental documentation. In most cases, however, the nature of the issues under review allow for the development of decision trees that specifically articulate different courses of research, experimentation and interim and/or final implementation, depending on the results of incremental investigations. A decision tree model would assist the CBDA in considering complex and difficult decisions regarding the implications of its implementation alternatives and the nature of associated resource investments.
5. A clearer distinction needs to be made between the “passive” function of independent scientific review and the “active” function of embedding science in implementation. The CBDA’s various science boards and panels and its Science Program element have been called upon at some times to serve as independent reviewers of CALFED’s scientific adequacy and at other times to assist the CBDA and its implementing agencies in designing and implementing science elements of specific implementation activities. These passive and active functions should be more clearly differentiated in order to protect the integrity of independent science review.
6. The “active” function of embedding science in implementation needs to be more aggressively promoted. The previous comment notwithstanding, the CBDA’s various science boards and panels and its Science Program element have been much more successful at providing outside review than in promoting the “internalization” of adaptive management in the implementing agencies. The ISB should offer guidance as to how the

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Science Program can work with the implementing agencies to better incorporate conceptual models, hypothesis testing, monitoring, performance assessment, and other elements into their implementation activities.

Thank you for your consideration of these comments. Please feel free to phone me at (415) 506-0150 or email me at bobker@bay.org if I can be of further assistance.