



Technical Memorandum

To: Karen Scarborough, Resources Agency
Laura King Moon, State Water Contractors

From: Bruce DiGennaro, The Essex Partnership
Wayne Spencer, The Conservation Biology Institute

Date: June 2, 2010

Re: **Initial Findings and Preliminary Recommendations on Additional Science Engagement to support Development of the Bay Delta Conservation Plan**

This memorandum outlines initial findings and preliminary recommendations regarding areas within the ongoing Bay Delta Conservation Plan (BDCP) planning process where additional independent science input may be warranted and how that input might best be structured. The findings and recommendations presented below are based on informal discussions with Steering Committee members and our experience with other conservation planning efforts.

It should be noted that these recommendations pertain to the role of independent science in the planning process. This should be viewed as separate and distinct from the work of scientists directly engaged in preparing the plan, though one can inform the other and vice versa.

Initial Findings

1. There is a strong interest in, and desire for ongoing independent “advice” on materials and analyses as they are being formulated, as opposed to (or in addition to) formal “reviews” after work products are completed.
2. There is a need for a coordinated strategy and longer-term planning for science advice and reviews, particularly given the potential lead times involved in securing and scheduling independent advisors.
3. There are potential opportunities and synergies for coordinated reviews with other entities such as the Delta Science Program (including the proposed Delta Science Council Independent Science Board) and National Research Council. The recent Logic Chain review is a good example of a jointly funded review.
4. There has been an increased level of science input in the process and there is a continued need to ensure transparency, including written documentation of engagement with independent scientists and their review comments.

5. Areas where independent science engagement may be warranted include:
 - a. Logic Chain proof of concept and performance metrics
 - b. Effects Analysis methodology and results
 - c. Adaptive management and monitoring

There is also interest in a review of the Draft Conservation Plan and EIR/EIS, but these would likely be conducted by entities other than BDCP.

6. There is a need to ensure that expertise on “other stressors” as identified in BDCP is adequately represented in future engagements.

Preliminary Recommendations

1. Utilize the 3 tiered approach to independent science engagement that has been approved by the Steering Committee.
2. Plan for near-term Tier 1 and Tier 2 level engagements to address immediate needs for science advice on particular issues (see specific suggestions below).
3. Establish a small group, active in BDCP who, with the assistance of science staff clarify the charge and frame specific science questions to be addressed through independent science engagements.
4. Utilize the existing “pool” of science advisors that have been involved in previous BDCP reviews for near-term engagements, but consider one or two strategic additions for a fresh perspective, especially for adaptive management and monitoring/metric discussions. We recommend at least one additional scientist who has been involved in adaptive management plan design and analysis for similar large-scale conservation plans involving aquatic resources that have been implemented.
5. Consider the following specific engagements:
 - a. Engage the Logic Chain review panel in early June to provide feedback on draft logic chains developed by the Logic Chain working group for winter run salmon and long-fin smelt. Feedback would be provided via email and a conference call organized and facilitated by the Science Facilitators or panel chair.
 - b. Organize Tier 1 or Tier 2 level “workshops” in June focused on the effects analysis methodology and how results from the effects analysis will be used to aid decision making. These workshops would be structured as interactive brainstorming sessions to explore specific technical/analytical issues (including what the available science tells us and doesn’t tell us) and options for addressing these issues. The workshops would involve interaction between independent advisors and technical staff working on the BDCP. Example issues might include methods for aggregating the effects of multiple conservation measures, addressing uncertainty, and use of DRERIP tools in the effects analysis.
 - c. Schedule an early July Tier 2 or 3 engagement to review proposed Logic Chain performance metrics and their linkages to the effects analysis, monitoring, and adaptive management. The panel would involve advisors from the Logic Chain review, plus

additional experts, including experts with recent experience implementing conservation plans in southern California.

- d. Coordinate with the Delta Science Program and Interior on organizing independent reviews.