

**Proposal for Investigations on
Understanding Population Effects
and Factors that Affect Entrainment
of Delta Smelt at State Water Project
and Central Valley Project**

Science Review Panel

November 14, 2014

Initial Findings and Recommendations

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Initial Findings and Recommendations

- More attention needs to be given to predation, particular in Proposal 2 & 4.
- Devote resources to 3-D models; don't spend time on 2D
- Produce baseline conditions; identify factors that are most important
 - Focus on identifying inter-tidal response that result in holding and migration behavior at low salinity and first flush

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Initial Findings and Recommendations

- Without knowing what covariates are being considered in Proposal IV, we are concerned that adding covariates increases complexity but may not increase utility. Population dynamics have spatial context, but Proposal IV is not spatially explicit.

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Initial Findings and Recommendations

We understand the desire to use historical data, but the historical data has substantial deficiencies. The sampling programs were not designed to produce the information needed. Consideration should be given to better designed sampling

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Review Material

Material to be Reviewed

- *Investigations on Understanding Population Effects and Factors that Affect Entrainment of Delta Smelt at State Water Project and Central Valley Project* proposal. The document is provided in an electronic format.

Supplemental Documents

- CAMT Background and Context Information
- Draft Outline of a Scope of Work for Factors Affecting Adult Delta Smelt Entrainment, CAMT Workplan Element 3-2-1 (to address CAMT Progress Report 2/7/14 Table 3-2, Element 1)
- Draft Outline of a Scope of Work for Assessing Population Effects of Entrainment, Workplan Element 3-2-2 (to address CAMT Progress Report 2/7/14 Table 3-2, Element 2)
- Progress Report to the Collaborative Science Policy Group, February 14, 2014. Prepared by the Collaborative Adaptive Management Team (CAMT). http://www.sfcwa.org/wp-content/uploads/Item_7_Attach_1_CAMT-Progress-Report-Version-6_0-140207_0.pdf
- Workshop on the Interior Delta Flows and Related Stressors Panel Summary Report. <http://deltacouncil.ca.gov/sites/default/files/documents/files/Int-Flows-and-Related-Stressors-Report.pdf>

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Charge Questions

Proposal Scope of the Review / Review Questions

1. Are goals, objectives, hypotheses and questions clearly articulated and internally consistent?
2. Are key questions, hypotheses and the conceptual model well stated and reasoned? Do they explain the underlying basis for the proposed work?
3. Is the approach well designed and appropriate for meeting the objectives of the project? Does the proposal fully address the questions in the scoping outline?
4. Are the budget and the schedule reasonable and adequate for the work proposed?
5. Are products likely to advance our knowledge of processes influencing entrainment and implications of entrainment?
6. Will the proposal help close gaps and address uncertainties in the science of entrainment identified by the CAMT?
7. Are there additional questions or aspects of the problem that might be addressed during the proposed work? If so give examples.
8. Does the proposal take an integrated approach across all relevant disciplines?
9. Will the analyses described in the proposal help inform the type of management actions referenced in the scoping outline?
10. Is the proposal explicit in what data it will use and how it will address limitations of the data in relation to the questions being asked? Does the proposed investigation appropriately incorporate the existing data, based on identified limitations?

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Next Steps/Timeline

Deliverable and Timeline

Task 1: By November 14, 2014

- Read and review the *Delta Smelt Entrainment Proposal*.

Task 2: November 14, 2014

- Participate on the panel and contribute to presentation of preliminary findings at the meeting.

Task 3: By December 15, 2014

- The final review report, co-authored by the reviewers, is due 30 days after the meeting.

1. Are goals, objectives, hypotheses and questions clearly articulated and internally consistent?

- Yes, for all proposals.

- 2. Are key questions, hypotheses and the conceptual model well stated and reasoned? Do they explain the underlying basis for the proposed work?**
- Some are too vague and general; particular Proposals II and IV.

- 3. Is the approach well designed and appropriate for meeting the objectives of the project? Does the proposal fully address the questions in the scoping outline?**
- Proposal II should focus on identifying behavior response to local conditions occurring over the tidal cycle, and then link global conditions (e.g., horizontal conditions) to local conditions.
 - Panel needs more time to respond to response to scoping outline.

4. Are the budget and the schedule reasonable and adequate for the work proposed?

- No comment

5. Are products likely to advance our knowledge of processes influencing entrainment and implications of entrainment?

- The results will lead to incremental advances in our knowledge, but may not resolve many entrainment issues.
- The most useful product may be an example of successful collaborative science.

- 6. Will the proposal help close gaps and address uncertainties in the science of entrainment identified by the CAMT?**
- Maybe. The disagreements will be clearly articulated, but may not be resolved.

7. Are there additional questions or aspects of the problem that might be addressed during the proposed work? If so, give examples.

- Yes, give more attention to process models. Need to synthesize turbidity, salinity, position of low salinity water, predation... into a coherent approach.
- Two stage approach:(1) identify functional form, and (2) Identify range of parameters that go into functional form.

- 8. Does the proposal take an integrated approach across all relevant disciplines?**
- Proposal reflects the growing recognition that both physical and biological processes are crucial.

9. Will the analyses described in the proposal help inform the type of management actions referenced in the scoping outline?

10. Is the proposal explicit in what data it will use and how it will address limitations of the data in relation to the questions being asked? Does the proposed investigation appropriately incorporate the existing data, based on identified limitations

- Mostly