

**Delta Methylmercury TMDL Public Workshop  
with the Technical Advisory Committee**  
Tuesday, March 6, 2012, 9:00 am – 4:00 pm  
Central Valley Regional Water Quality Control Board  
11020 Sun Center Drive, Suite 1200, Rancho Cordova, California

**Workshop Summary**

Workshop and other Phase 1 activity materials are available on the Central Valley Water Board's website for Delta Methylmercury TMDL Phase 1 activities. Please visit: [http://www.waterboards.ca.gov/centralvalley/water\\_issues/tmdl/central\\_valley\\_projects/delta\\_hg/stakeholder\\_workgroup\\_mtgs/index.shtml](http://www.waterboards.ca.gov/centralvalley/water_issues/tmdl/central_valley_projects/delta_hg/stakeholder_workgroup_mtgs/index.shtml)

**Methylmercury Science in Delta and Data Gaps**

Copies of presentations are available on the website above.

**TAC Roles and Study Process**

Staff and TAC members responded to questions for clarification of the Study Workplan submission and review process.

1. For each Workplan, the TAC will provide one set of comments. Responses from individual TAC members will be combined and coordinated by Dr. Tom Grieb, the TAC Chairperson.
2. Implementation actions conducted for the Delta TMDL are expected to comply with the California Environmental Quality Act. Compliance with CEQA is also a condition of receipt of State grants. The Central Valley Water Board adopted a programmatic-level CEQA document with the Delta mercury Basin Plan amendments, which addresses study activities as anticipated by staff. In the event that a study activity is expected to have environmental impacts beyond those discussed in the CEQA document, Regional Board staff will work with study planners to prepare a supplemental environmental evaluation.
3. The Regional Board will not automatically disapprove a Study Workplan if all of the TAC's review comments are not incorporated. Study planners are expected to take TAC recommendations seriously. But, if there is difficulty incorporating a TAC recommendation into a Workplan, study planners should discuss with Regional Board staff.
4. Lack of sufficient funding for studies is a concern for study planners. Regional Board staff reiterated its commitment to assist study planners in seeking funds and attaining maximum efficiency in the Study Workplans.

**Discussion of Study Guidance and Content of Studies**

Prior to the Workshop, the TAC had reviewed and provided written comments to Board staff regarding the Study Guidance. During the Workshop, TAC members gave additional comments on the Study Guidance and responded to questions regarding content and design of the studies themselves.

- A. Concept Proposals. The TAC is scheduled to review Control Study Workplans after they are submitted to the Regional Board. At that point, the Workplans are expected

to be in a relatively complete state. The TAC offered to review study ideas earlier in the process. Specifically, entities are invited to submit brief (~4-page) “concept proposals” The TAC would provide a brief review and comment. The proposed timeline is for concept proposals to be submitted in August so that the review of concept proposals can coincide with the TAC’s review of individual Study Workplans (due 20 July 2012). The concept proposals should include:

- problem statement (including level of methylmercury reduction needed),
- objectives and study hypotheses,
- brief explanation of mechanisms that are expected to underlie the control measure(s),
- control measures to be evaluated, and
- overview of data collection.

Submission of a concept proposal would be completely optional. Regional Board staff will add the concept proposal schedule and components to the Study Guidance document after additional suggestions are received from the TAC.

B. Summary of additional suggestions and discussions:

1. Including cost estimates of control programs is optional for the Study Workplans, but even “ballpark” estimates of costs are useful to help prioritize studies. For example, a project comparing implementation actions (not mercury) used a three-tier ranking (low, medium, high) for both cost and likelihood of success at reaching the implementation goals.
2. Frame study objectives as testable hypotheses. For example, “removing organic material at the end of the growing season will reduce methylmercury discharged after flooding”. If possible, give a quantitative estimate of the expected change.
3. Be concise and precise in the Workplans. References and background information can be provided in appendices. Be clear on the specific factors or processes that the proposed management measure is expected to address.
4. Workplans should describe how the climactic and other environmental parameters of the study site or activity will be described. Understanding the environmental conditions under which the study was conducted will facilitate evaluating the extent of transferability of the results as the environment changes.
5. Characterization may be important for some methylmercury source types and to identify the potential points of control, but study goals should focus on developing and testing control measures.
6. In open water, methylmercury concentrations fluctuate on a daily cycle, with higher concentrations occurring at night. The diurnal cycle should be recognized when planning sample collection.
7. Comparing wastewater treatment types, it is notable that treatment processes that include ponds tend to have relatively high concentrations in effluent. Seasonal changes within ponds and operations of recycle streams may provide control options. Source reduction and nitrification/denitrification treatment have also been shown to be effective at reducing methylmercury discharges.
8. The TAC recognizes the need to consider and gather information about possible environmental impacts and unintended consequences of methylmercury management measures being studied. The TAC is interested in reviewing this

- type of information in addition to effectiveness of methylmercury controls. TAC members can also draw on their experiences outside of the Delta program to watch for unintended effects. If study planners conclude that a management option is not achievable because of adverse environmental impact, explain why.
9. In dealing with unintended consequences and more broadly with how to address changing conditions within studies, the TAC recommended that study planners consider how to incorporate a) mitigation, and b) adaptive management. The Delta's DRERIP models provide an example of incorporating adaptive management into a planning or study process. For example, a pilot project can be used to resolve uncertainty before implementing a full-scale project.
  10. The TAC review process is not to compare Workplans and give "grades". The TAC's goal is to provide feedback to ultimately achieve the best plans possible.
  11. TAC can help connect study planners with experts outside of the TAC. Route requests and questions through Regional Board staff, who will forward them to TAC members.

### **Next Steps**

1. The California Financing Coordinating Committee is hosting Funding Fairs. Sacramento-area fair is at CalEPA on 17 May. For details, contact Janis Cooke. View the flyer at: [http://cfcc.ca.gov/res/docs/FINAL\\_2012\\_CFCC\\_Flyer\(2\).pdf](http://cfcc.ca.gov/res/docs/FINAL_2012_CFCC_Flyer(2).pdf)
2. Regional Board staff will provide revised the Study Guidelines that incorporate the TAC's suggestions by the end of March.
3. After Methylmercury Control Study coordination letters are received in April, Regional Board staff will post a list of coordinated and individual study participants.