DRAFT

# Delta Mercury Control Program
# Methylmercury TMDL and Basin Plan Amendment
# Guiding Principles
# 14 May 2009

Note: The principles are in **bold** text. Several of the principles include indented factual underpinnings to support the principle.

1. **Phase 1 studies should address both inorganic mercury (inorganic Hg) and methylmercury (MeHg) from all sources. Reasonable control options should be implemented during Phase 1 for inorganic Hg and/or MeHg.**

   While many dischargers of MeHg have no control over the inorganic Hg sources underpinning MeHg production, there is common commitment among the stakeholders to address both MeHg and inorganic Hg given practical control options. MeHg is the threat and common concern. There are several potential methods to reducing MeHg concentrations in ambient water: reducing the inorganic mercury that supplies methylation sites (i.e., reduce the inorganic Hg levels in Delta sediments); and managing the methylation sources themselves to reduce MeHg discharges, either by reducing the overall volume of discharge from the methylation sites or by implementing management practices to reduce the MeHg concentration in the discharge.

2. **Phase 1 control studies should develop knowledge for effectively controlling MeHg.**

   There is limited knowledge on how to control MeHg production and discharges.

3. **The Basin Plan amendment (BPA) and staff report should state the current state of knowledge of the ability to control inorganic Hg and MeHg sources to attain their load and wasteload allocations and fish tissue objectives. The TMDL source control requirements should be based on that knowledge and the results of the Phase 1 studies, and be reasonable.**

   The staff report should discuss how the Phase 1 studies and other information will be used to determine control strategies for inorganic Hg and MeHg and their effectiveness.

   Some stakeholders believe that we may not know if attainability of allocations and objectives will be feasible at the end of Phase 1.

   While reducing sources of inorganic Hg and controlling transport leads to reducing MeHg over the long term, reducing local MeHg sources and ambient concentrations can have rapid, local benefits.

Some stakeholders believe that source control benefits may only be realized near discharges as MeHg may not behave conservatively and that natural environmental factors may influence human efforts to control MeHg in the Delta, thus that the net environment benefits of reducing MeHg in discharges needs to be evaluated.

4. **The mercury control program should incorporate an adaptive management process.**

5. **The mercury control program should implement reasonable, feasible actions to address MeHg loads/production and human/wildlife exposure in the near-term. The BPA should particularly address public health impacts of mercury in Delta fish, including activities that reduce actual and potential exposure of—and mitigate health impacts to—those people and communities most likely to be affected by mercury in Delta-caught fish, such as subsistence fishers and their families.**

   State Board Resolution 2005-0060 directs the Central Valley Board to do this.

6. **The mercury control program should incorporate long-term stakeholder involvement in the control studies, Technical Advisory Committee, and upstream TMDLs.**

   "Involvement" means development, implementation, and review.

7. **The control program should create strategies, including incentives to encourage innovative actions, to address the accumulation of MeHg in fish tissue and to reduce MeHg exposure, including watershed approaches, offsets projects, and short and long-term actions that result in reducing inorganic Hg and MeHg. Innovative and creative solutions such as offsets should not substitute for reasonable actions to address local impacts.**

   MeHg contamination of fish is a common concern and causes disproportionate harm to some vulnerable communities.

8. **The linkage analysis and fish tissue objectives and the attainability of the allocations should be re-evaluated based on the findings of Phase 1 control studies and other information. The linkage analysis, fish tissue objectives and allocations should be adjusted in Phase 2, if appropriate.**

   The Regional Board will develop a Phase 2 TMDL staff report (peer-reviewed, open to public comment) based on the Phase 1 study results. This report would consider new information and if appropriate recommend revisions to the allocations, linkages, and fish tissue objectives. This staff report would be open to

public comment and a decision on it would be made by the Board before moving forward with Phase 2.

9. **The implementation plan should include methods to assess the relative magnitudes and other factors of different MeHg and inorganic Hg sources, and prioritize study and control actions, if and when it is not feasible to pursue those actions simultaneously.**

10. **The Phase 1 studies should be subject to independent peer review by the Technical Advisory Committee.**

11. **The geographic scope of the Phase 1 mercury control studies should include all sources downstream of major dams. Allocations in the Delta TMDL should be given to all point and non-point methylmercury sources within the legal Delta and Yolo Bypass, including open waters.**

    "Major dam" refers to the most downstream dam that has a significant effect on impeding flood flow and retaining sediment.

    The Basin Plan Amendment should clearly write out how the sum of allocations will meet the TMDL.

    Regional Board staff will be developing TMDLs for Delta tributaries during Phase 1. Regional Board staff will continue to develop TMDLs upstream of the dams. It is not the intent of this Principle to limit upstream beneficial studies and projects.

    The State of CA (State Lands Commission and DWR) owns and manages lands and waters of the state that contribute to MeHg loads.

    The Basin Plan Amendment should provide guidance on how to write interim limits for NPDES permittees tributary to the Delta.

12. **The mercury control program and other Delta projects should recognize the multiple competing and potentially conflicting interests and projects, such as habitat restoration, flood protection, water supply, and human and wildlife consumption of fish.**

    The intent of the mercury control program is not to prevent otherwise beneficial actions such as wetlands development.

13. **Efforts should be taken to ensure all stakeholder interests are represented in developing mercury control programs.**