



United States Department of the Interior



BUREAU OF RECLAMATION
Mid-Pacific Regional Office
2800 Cottage Way
Sacramento, California 95825-1898

IN REPLY REFER TO:

MP-700
ENV-8.00

Mr. Patrick Morris
Senior Water Quality Control Engineer
Regional Water Quality Control Board
Central Valley Region
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Rancho Cordova, CA 95670

Subject: Comments on "Amendments to The Water Quality Control Plan for the Sacramento and San Joaquin River Basins for The Control of Methylmercury and Total Mercury in the Sacramento-San Joaquin Delta Estuary" (February 2010 - Public Review Draft)

The Bureau of Reclamation, Mid-Pacific Region has reviewed the subject report. Reclamation recognizes this report is a draft and appreciates the opportunity for review. Our main concerns are summarized as follows:

- Reclamation must conduct flood control operations in accordance with the mandates of other agencies such as the U.S. Army Corp of Engineers, and does not have the sole discretion to deviate from these criteria.
- Reclamation must operate its facilities in accordance with the terms and conditions of its water permits and licenses. To operate the Central Valley Project (CVP) in a manner to meet the methylmercury standard may result in violations of these terms and conditions.
- Reclamation operates the CVP to provide fishery flows in accordance to the Central Valley Project Improvement Act. These flows are determined by other agencies such as the U.S. Fish and Wildlife Service, and the California Department of Fish and Game.

We look forward to working with you to find a viable solution regarding these concerns. If you have any questions, please feel free to contact Gene Lee, Regional Water Quality Coordinator at 916-978-5092, or Paul Fujitani, Chief, Water Operations, at 916-979-2197.

Sincerely,

Michelle H. Denning
Regional Planning Officer

Enclosure

Comments on the Central Valley Regional Water Quality Control Boards Draft Basin Plan Amendment for the Control of Methyl and Total Mercury in the Delta

April 7, 2010

Reclamation submits the following comments for “Amendments to The Water Quality Control Plan for the Sacramento and San Joaquin River Basins for The Control of Methylmercury and Total Mercury in the Sacramento-San Joaquin Delta Estuary” (February 2010 - Public Review Draft)

Comments:

1. Characterization and Control Studies

Phase 1 of the total maximum daily load (TMDL) requires responsible parties to evaluate methyl and total mercury concentrations and loads in source and receiving waters and discharges, identify variables that control methylmercury production, and propose management practices and implementation schedules to reduce methylmercury loads and concentrations.

The time schedule to complete Phase 1 is very optimistic in regards to the level of effort required and available resources. Reclamation does not have the technical expertise to perform such studies nor the ability to propose potential management strategies to reduce methylmercury loads. The acquisition of necessary funds to perform such a study may require Congressional authorization which is a lengthy process and not guaranteed.

In regards to the sulfate portion of the study, how definitive is the linkage between sulfate concentration and methylmercury production? Your analysis states there is a connection between sulfate concentration and methylmercury production. However, your data shows that the Sacramento River Basin has a lower sulfate concentration than the San Joaquin River Basin, but the methylmercury concentration is higher in the Sacramento River Basin. A related question is how does the X2 position relate to sulfate concentration and methylmercury production? If seawater has a sulfate concentration of approximately 800ppm, methylmercury in the Bay should be correspondingly high.

2. Flood Conveyance Flows, Water Management Storage, and Storage

The TMDL states that changes in flood conveyance, water delivery to, diversions from, or storage in the Delta, and salinity standards or flow management practices used to maintain current salinity standards could affect methyl and total mercury loading in the Delta.

However, the Central Valley Project is operated to meet numerous projects and permit objectives, including water supply, flood control, protection of fish and wildlife, and power generation. Our operational requirements do not allow for much flexibility and it is unlikely that we would be able to significantly alter our water operations without conflicting with other project requirements. For example, our flood operations at Folsom, Shasta and New Melones Reservoirs are determined by criteria established by the U.S. Army Corps of Engineers (COE). If Reclamation reduced reservoir releases during periods of flood control for mercury purposes, then we would be in violation of the COE flood control criteria and may have potential impacts on public safety.

The fishery agencies determine when and what volume of releases they would like to have for instream flow benefits. The Central Valley Project Improvement Act (CVPIA), 3406(b)(2) authorizes the US Fish and Wildlife Service (FWS) to dedicate and manage up to 800 taf of project yield for anadromous fishery restoration. To a large extent, fishery restoration actions usually take the form of increased instream releases. The California Department of Fish and Game (DFG) have minimum instream release requirements on both the American River and the Stanislaus River. Reclamation does not have the liberty to make river releases less than the minimum required in the DFG agreements.

On the San Joaquin River, Reclamation is required to make releases from some source (currently New Melones Reservoir) to meet the Vernalis salinity requirements and Vernalis flow objectives. These releases are required under SWRCB D-1641. Again, Reclamation does not have any flexibility to reduce releases to benefit (reduce) methylmercury loading.

In regards to salinity control and the X2 standard, D-1641 mandates Reclamation to meet the X2 standard as a condition of its permit. As such, Reclamation does not have any flexibility on this standard.

While power production is an incidental benefit to water operations (e.g. When Reclamation operates to our water and permit obligations, power generation is an incidental benefit), if reservoir releases were reduced over a long period, there could be a large energy supply impact to the State of California, with corresponding economic and financial impact.

Reclamation may only have a small impact on flows entering the Yolo Bypass and other floodways. A large percent of the flow in the system under winter high flow conditions originates from other non-project streams and unregulated flows. These floodways also serve an important role in protecting other lands and property.

3. *Agricultural Lands Wetlands*

The TDML control program applies to agricultural lands and wetlands in the Delta and within 30 miles of the Delta. Although Reclamation does not own or operate any wetlands, Reclamation is obligated under CVPIA to convey and provide water to wildlife refuges. The volume and timing of these deliveries are determined by the refuge managers.

Reclamation believes the development of wetlands in the Delta is an important component of the CALFED Ecosystem Restoration Program. The proposed control program would appear to prevent or create additional obstacles for wetlands restoration.

4. *Economic Analysis on Benefits*

The staff report did not adequately address the impact this TMDL will have on other competing water management interests such as flood management, salinity control, providing fishery flows, and creation of wetland habitat. A detailed and comprehensive benefit analysis should be performed to adequately evaluate the benefits and tradeoffs this mercury control program would have on other beneficial uses including public safety.