

SOUTH DELTA WATER AGENCY

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April 9, 2008

Via E-Mail pmorris@waterboards.ca.gov

Mr. Patrick Morris
Central Valley Water Board
11020 Sun Center Drive, #200
Rancho Cordova, CA 95670

Re: Draft Basin Plan Amendment and TMDL for Methyl Mercury

Dear Mr. Morris:

The following comments to the methyl mercury (“MeHg”) TMDL and proposed Basin Plan Amendment (“draft BPA”) are submitted on behalf of the South Delta Water Agency.

SDWA, along with other in-Delta interests have participated in the MeHg TMDL process from the very beginning. At every stage, comments have been given, both orally and written, criticizing the approach to the problem, and how it unfairly focuses on interests who are clearly not part of the problem. Notwithstanding this input, the staff reports and documents proposed for adoption by the Regional Board continue with the unscientific and “backwards” approach to regulating the problem. In brief, the staff proposals begin by imposing significant financial burdens on interests who are responsible for the smallest possible percentage of the problem, treating them the same as others who are a much larger part of the problem and ignoring those who are the greatest part of the problem. This approach defies explanation and should not be condoned, much less adopted by the Regional Board.

1. The text of the documents does not clearly set forth how total mercury compares to methyl mercury. However, Figure 4.2 of the draft BPA gives us an annual load of total mercury of 402.1 kilograms. It also gives us an annual load of methyl mercury of 5,218 grams. Hence, methyl mercury is approximately 1.2% of the average annual load of total mercury. [The Board will please excuse any error in my calculations. If I have dropped or added a “zero” anywhere it is purely unintentional, and does not detract from the basic fact that the proposed program inexplicably focuses on the smallest potential contributor to the problem.]

According to the draft Basin Plan Amendment (page ES-2), 60% of the MeHg loads come from the tributaries to the Delta, and 40% come from in-Delta sources. Of the 100% of MeHg “flux” from sediments and open water habitats constitutes 31%, wastewater treatment sources 4%, and agricultural runoff about 3%.

Put in context, agricultural runoff from in-Delta sources is 3% of the MeHg load, which is .00036 of the total mercury load. The parties (purportedly) responsible for this minute contribution are required to undertake “characterization and control studies” in order to better understand how they might be making these contributions, and determine how to decrease those contributions. The draft BPA estimates these studies will cost from \$430,000 to \$820,000. It worth noting that the San Joaquin-Delta Water Quality Coalition (under the ILP and which is assumed/suggested as the party to conduct the studies and tests) is currently approximately \$1,000,000 per year.

Clearly, it makes no sense to require certain interests to make this level of expenditure when those interests constitute such a minimal portion of the problem. In-Delta agriculture’s (purported) 3% contribution of the problem is not only within the margin of error of the staff’s calculations, it is one third of the 10% cushion built into the TMDL.

2. Although it is not clear from the documents, it appears that the failure of any in-Delta diverter/discharger to financially participate in the required studies and tests would subject him/her to potential penalties for violating a water quality standard. If this is true, it should be clearly stated somewhere in the documents.

3. The proposed implementation plan for the TMDL requires irrigated lands within the Delta, *where the proposed fish tissue objectives are exceeded*, to undertake characterization and control studies. The subarea designated “Central Delta” is assigned no MeHg allocation because there is apparently a net retention (or reduction) of MeHg in that area. The “San Joaquin River” subarea is assigned to reduce 75% of its MeHg load.

Notwithstanding these allocations, the documents note that the Delta has many islands with peat soils which are believed to facilitate methylization. However, the Central Delta has the largest percentage of the peat soils while the South Delta (included in the San Joaquin River subarea) has very little peat soil. This is counter-intuitive to the allocations. In addition, the cross Delta flow induced by the export projects draws water through the Central Delta to the South Delta, while the San Joaquin River flow entering the South Delta (during most months in most years) never leaves the southern Delta; it all goes to exports and local diversions.

Hence the staff approach appears to be based on a misunderstanding of Delta hydraulics while at the same time attempting regulation not based on any known causation. Does any Central Delta discharger contribute to the amount of MeHg load in the South Delta? Does the

South Delta bear any responsibility to decrease loads to the Bay when none of the South Delta water reaches the Bay?

4. Staff recommends that parties responsible for 3% of the MeHg load incur approximately the same financial obligations as those responsible for 31%. At the same time, the upstream 60% contributors are not required to undertake any such studies and financial obligations. This further highlights the backwards approach suggest by staff. The logical approach is to start upstream and work your way down. As in dealing with invasive species of plants and animals, one first addresses the upper most source. If one starts at the bottom of the system, the upstream areas continue to “seed” the areas downstream, making efforts to clear out those downstream areas a waste of time and resources.

The same is true with mercury. Because the Bay Regional Board got it backwards, staff believes it must now continue the mistake. In order to limit the Delta’s contribution to the Bay, the Delta is now charged with decreases while the upstream sources (the major contributors) continue to re-seed the Delta with HG and MeHG. The effect is that in-Delta interests who at most are contributing .03 of the MeHG load and .0036 of the total Hg load are now required to both figure out how to solve (someone else’s problem) and reduce their insignificant contribution.

5. Oddly, and clearly contrary to law, staff recommends that new sources of MeHg be allowed discharged into Delta waterways currently designated as “impaired.” The only “burden” placed on the new discharges is that they too cooperate in the studies. This means that someone can increase the load of MeHg into the channels at the same time other in-Delta diverters/dischargers are required to spend money to find out how much MeHg is coming off their land, and how they can decrease that amount.

It appears that this preferential and illegal treatment of new contributors is some sort of recognition that increased wetlands (an identified major source of MeHg) also provide a benefit to the Delta and the beneficial uses thereof. However, staff makes no such recommendation for dredging, or other beneficial activities. To the contrary, dredging, which is needed to protect hundreds of thousands of lives and billions of dollars of property (by maintaining flood conveyance capacity), cannot result in any net increase in MeHg.

6. The characterization and control studies require in-Delta interests to measure total and methyl mercury concentrations and loads in “source waters” and “receiving waters.” This means that in-Delta agriculture must pay for the studies to determine how much mercury others have placed in the channels, while those (upstream) others are subject to no testing requirements.

7. The draft BPA requires that water management, conveyance and flood flow management parties must also conduct the characterization and control studies. However, the

document does not fully discuss the possible conflicts and effects which may result. If a flood conveyance project or action increases flows at certain times, that may be a benefit to many things, but may affect the flux from sediment. Does there not need to be an analysis of the conflicting benefits and tradeoffs before deciding that an action might cause a violation of the newly proposed Basin Plan?

Similarly the documents discuss how water management and releases for salinity control might affect methylization. Again, this raises serious issues wholly ignored by the draft BPA. Numerous in-Delta beneficial uses require salinity standards and benefit from increased net channel flows (the current and probable method for achieving these objectives). However, the draft BPA seems to suggest that changes to meet these preexisting objectives might increase MeHg and thus be a violation of the new Basin Plan. Much more analysis is required before the Regional Board adopts something that might work against meeting other water quality objectives. [It should be noted that the Regional Board has still not adopted an upstream salinity objective on the San Joaquin after having been directed to do so by the SWRCB for many years.

8. The draft BPA makes no real analysis of what various parties might do to decrease methylization or total loading of Hg. The documents simply anticipate that the various parties, in the Delta (but not upstream contributors) will spend enough money and develop the methods by which the TMDL will be accomplished. What this suggests to the public is that the Regional Board has no real idea of how to address the problem, but will instead defer any real decision, order others (some clearly not any meaningful cause of the problem) to look into it and then reconsider the issue at a later date.

The only real suggestion (with regard to agricultural) is that in-Delta farmers might institute "tailwater recovery systems" to reduce their runoff. Such suggestions indicate a significant lack of understanding. Southern Delta agriculture encompasses nearly 70 soil types. Many of these do not allow for the leaching of salts without sufficient time and additional applied water. Because the CVP service area in the San Joaquin valley contributes huge salt loads at high concentrations, southern Delta farmers must apply certain amounts of water and then have sufficient time for the applied water to leach out the CVP introduced salts. Decreasing the applied water, and thus decreasing the amount of discharge/runoff would be counterproductive and harmful to crops. The issue is even more complicated in the Central Delta where the lands are below sea level and subject to constant seepage.

It is clear that the staff based its calculations on a misunderstanding of the facts and its estimates of studies and potential actions are probably unsupportable.

A reasoned analysis of the problem leads to the conclusion that in order to address the mercury problem in the Central Valley, one would first start in the upstream reaches, identify the sources of mercury and suggest how to decrease or eliminate them. Next, one would identify

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where and how upstream methylation occurs and suggest how to decrease or eliminate them. Finally, after getting control of the sources of mercury and the upstream activities which methylize it, one would then examine how the Delta itself may contribute to Hg and MeHg and determine what might be done in that area. Of course, any "cause" which constitutes .03 or .0036 of the problem would be at most, deferred until the major causes are addressed. Certainly, one would not begin to regulate the smallest part of the problem first, and would not place a significant financial burden on those smallest contributors.

Inexplicably, staff has adopted an approach that can only be described as backwards, and which treats the parties least responsible as if they were the most responsible. All the while, the contributors of 60% of the MeHg go unregulated, and do not participate in the studies. The proposed BPA and accompanying TMDL must be fundamentally changed and can not be adopted in their present form.

Please call me if you have any questions or comments.

Very truly yours,

JOHN HERRICK

JH/dd