

SOUTH DELTA WATER AGENCY

4255 PACIFIC AVENUE, SUITE 2
STOCKTON, CALIFORNIA 95207
TELEPHONE (209) 956-0150
FAX (209) 956-0154
E-MAIL Jherrlaw@aol.com

Directors:

Jerry Robinson, Chairman
Robert K. Ferguson, Vice-Chairman
Natalino Bacchetti
Jack Alvarez
Mary Hildebrand

Engineer:

Alex Hildebrand
Counsel & Manager:
John Herrick

April 1, 2010

[Via E-Mail Pmorris@waterboards.ca.gov](mailto:Pmorris@waterboards.ca.gov)

State Water Resources Control Board
1001 I Street, 2nd Floor
Sacramento, CA 95814

Re: Sacramento-San Joaquin Delta Estuary TMDL for Methylmercury
Central Valley Regional Board Hearing April 22, 2010

Dear Board Members:

On behalf of the South Delta Water Agency, I am submitting the following comments to the proposed Methylmercury ("MeHg") TMDL staff report and Basin Plan Amendment. Our agency has been involved in the process since it began and has given input when necessary.

As you recall, Regional Board staff presented an earlier draft TMDL a year and a half ago. At the public hearing on that draft, many stakeholders objected to the proposed TMDL. This resulted in the Regional Board directing staff to reconsider its recommendations through a stakeholder process. That process has played out over the last year and a half, resulting in the newly proposed TMDL. Although there are some differences between the original draft and this newest one, they are not substantive.

Although staff has been diligent (and competent) throughout the stakeholder process, and many parties participated, the process did not address the issues raised when the earlier draft was criticized over a year and an half ago. Instead, this process appeared to have two main foci, one being an attempt to get the stakeholders to work together to comply with the TMDL, and the other to convince the stakeholders that the originally proposed TMDL was indeed the best way to address the MeHg problem. From this I conclude the stakeholder process accomplished very little and would caution the Board to take pause when considering any future stakeholder process.

The problems I identified a year and a half ago remain unchanged in the currently proposed TMDL. The underlying cause of the problems stem from this Board's (and the SWRCB's) adoption of the Strategic Plan which focused on in-Delta issues.¹ Such an approach would only be justified or effective if in-Delta activities were indeed the cause of the particular problem being addressed. When in-Delta activities are not the cause, we end up with expensive, time consuming efforts which achieve little or nothing while the underlying problem remains.

The draft Staff Report for the MeHg TMDL ("Report") provides the proof of this. The Report lists the inputs of MeHg to the Delta. Those inputs include: Tributaries at 8.2 g/day; Wetlands at 2.7 g/day; Urban runoff at 0.05 g/day; Municipal WWTP's at 0.6 g/day; Open Water at 2.4 g/day; Atmospheric Deposition at 0.06 g/day; and Ag Return flows at 0.3 g/day (page iv). This makes in-Delta Ag Return flows approximately 2% of the MeHg input. Tributaries and Open Water contribute approximately 74%. As confirmed in the Report "As noted ... tributary inputs to the Delta are the largest sources of methyl mercury and total mercury." (page 16)

To address this problem, the draft TMDL starts in the Delta, and (eventually) requires load reductions. For example, the San Joaquin River subarea (which includes generally the area of the southern Delta) has a goal of reducing its current Ag Return flow (estimated) MeHg load of 23 g/year (note this is a *yearly* contribution, whereas the above referenced amounts were *per day* contributions) down to 8.3 g/year; a reduction of approximately 64%.

The other in-Delta ag is to reduce its contribution to load in varying amounts of 0%, 0%, 45%, 65%, 80%, and 82% 18%.

These reductions would be required before there is any obligation that the tributary and open water contributions to MeHg load (74%) be reduced. Put another way, the staff recommend that we attempt to reduce some in-Delta ag by as much as 82% to address that which contributes only 2% of the total MeHg in the Delta while not trying to reduce that which contributes 74% of the total MeHg.

In the past I have used harsh language when commenting on this situation. However, it does not matter how colorful or bland the language is. There can be, and is no reasonable basis for approaching a problem by trying to control 2% of it and not 74% of it. No explanation can change the illogical and ineffective manner by which the MeHg problem is being addressed.

¹ This focus on in-Delta activities is a direct result of the undue influence of export interests including the SWP and CVP. Those parties have inexplicably convinced the Regional Board and the SWRCB that the current Delta problems are a result of "other factors" including in-Delta diversions, contaminants, etc., rather than the yearly violations of DWR and USBR permits, lack of necessary CESA take permits, and failure of the SWRCB require such compliance.

Even if the in-Delta agricultural interests can somehow find a way to reduce their alleged contribution to total load, that would result in a 1% reduction in MeHg in the Delta. Again, there can be no justification for initially trying to make a 1% reduction.²

It does not matter that “we have to start somewhere” or “we have decided to move from downstream to upstream” (itself an illogical approach to pollution), or that the TMDL begins with investigations and more studies and not immediate requirements for reductions. If one desires to address the MeHg problem, one can only start with the largest part of the problem, not the most insignificant. Surely its would be more effective, as well as more fair if the upstream contributors were required to fund the initial studies and investigations rather than burden those who contribute the smallest amount.

The process is even more remarkable in that the assumed contributions from southern Delta ag return flows are likely incorrect, and *overstated*.

The Report cites a recent study of in-Delta ag return flows, and from that data calculates the contributions of ag. “The study results indicated ... mineral soils had a lower net methylmercury loads than . . . (Delta ag lands) dominated by organic soils.” (Page 104). The southern Delta is to a very large degree dominated by those mineral soils, with little peat (organic soils). This means that calculations from the study data should result in less calculated contribution from the southern Delta than the central Delta, and the Report *may* be saying that. However, because other factors suggest the central Delta is a MeHg sump, the central Delta agricultural interests will not be required to decrease MeHg production (on their lands which produce more MeHG) while the southern Delta agriculture interests will have to reduce their MeHg production by 64%.

It should be noted that the ag return flow study cited in the Report sampled/tested drains on Empire Tract, Lower Jones Tract, Staten Island, Twitchell Island, and Upper Jones Tract. Although I am not fully aware of the specifics of each of these Delta islands, I believe they are well below sea level and largely made of peat soils. None of them are similar to the majority of lands within the southern Delta. It is doubtful that any calculation about MeHg loading based on this study would accurately reflect conditions and MeHg production in our area.

Further, I am unaware of any process occurring during normal agricultural irrigation and drainage practices in our area which would methylize mercury. Channel water is diverted, applied to the land, that which is not taken up by the crop either enters a drainage ditch or enters the ground water, and the drainage water is pumped back into the Delta. It may be possible that subsurface processes methylize mercury, but those are not controllable by farmers.

² I realize that this initial TMDL effort includes wetland contributions, but there is little doubt in my mind that the Board will not restrict the ability of wetlands to function.

In the southern Delta, artificially salty water enters from the San Joaquin River. This salt is a result of the CVP (in conjunction with the SWP) delivering 5-800,000 tons of salt a year to the valley, and 3-500,000 tons of this salt draining into the River and then the Delta. Because of this salt (at high concentrations) local farmers must apply a certain amount of additional water for leeching purposes in an attempt to control salt in the root zone. This problem is complicated by the shallow ground water which is directly connected to the channel water, such that the ground water rises and drops with the tides. This process makes the leeching of salts difficult, while the export projects inhibit the flushing of the channels by altering net flows.

The point of this is to explain that local farmers have few if any options regarding their irrigation practices. This means that there are likely no best management practices ("BMP's") which could address MeHg without precluding the needed leeching of the root zones. The approach taken by the draft TMDL is to find, test and select the BMP's which will allow the stakeholders to meet the future load reductions. Although we may find we can do some things, it is unrealistic to base future load reductions on BMP's unknown at this time.

Lastly, I note some discussion in the Report which may be incorrect. On pages 24 and 25 the Report discusses how sulfate may affect MeHg. In that discussion it references Water Rights Decision 95-1WR as the controlling authority for EC regulation. At least for the southern Delta, I believe that is incorrect; D-1641 applied the 1915 WQCP objectives to the permits of the DWR and USBR, and thus should be referenced as the controlling authority. The current EC standards in the southern Delta are not a function of year type, but are dependent on the time of year.

In addition, EC in the southern Delta is not so much a function of freshwater outflow and seawater intrusion as stated. Although the operation of the export facilities does induce seawater intrusion, the EC in the southern Delta is largely due to the San Joaquin River inflow. As stated above, in most years, it delivers hundreds of thousands of tons of salt at high concentrations. Hence, for the southern Delta, the outflow standards do not materially affect EC, and thus sulfate. Perhaps this partially explains the calculations of southern Delta MeHg load contributions.

I appreciate the opportunity to comment. I'm sure you understand our position given the above. We believe the better approach would be an analysis to determine if the problem is in large part a function of the historic mercury in the system, which is slowly flowing out to the Bay and ocean. If MeHg production from that source is the main contributor to in-Delta loads, we might then conclude the problem rests with the State as a whole, rather than with a small group of stakeholders. Clearly, the problem will not be solved by trying to cut in half that which produces 2% of the MeHg.

State Water Resources Control Board

April 1, 2010

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Please feel free to contact me if you have any questions.

Very truly yours,

A handwritten signature in black ink, appearing to read "John Herrick", written in a cursive style.

JOHN HERRICK