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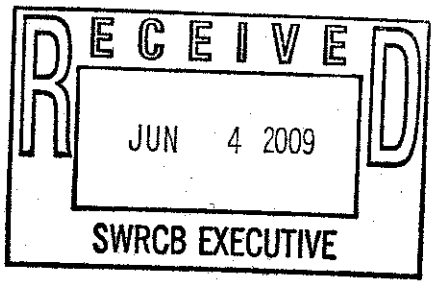
June 4, 2009

Via Facsimile (916-341-5620) and Email (commentletters@waterboards.ca.gov)



Ms. Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
1001 I Street, Sacramento, CA 95814

Re: Comment Letter – San Francisco Bay PCBs TMDL

Dear Ms. Townsend:

The City of Petaluma (City) submits the following comments concerning the State Water Resources Control Board's (SWRCB's) proposed approval of an Amendment to the Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) that would establish a Total Maximum Daily Load (TMDL) for PCBs in the San Francisco Bay.

The City shares the San Francisco Bay Regional Water Quality Control Board's (RWQCB's) goal of reducing PCB loading to the Bay. The City also supports most of the elements of the proposed Amendment's approach to achieving that goal, including, with respect to PCB discharges from municipal wastewater dischargers (POTWs), the following:

1. "implementation of best management practices to maintain optimum treatment performance for solids removal and the identification and management of controllable sources" [Amendment, p. A-7];
2. "NPDES permits shall include effluent limits based on current performance" [Amendment, p. A-7];
3. "support [of] actions to reduce the health risks of people who eat PCBs-contaminated, San Francisco Bay fish" [Amendment, p. A-7];

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4. "conduct[ing] monitoring, and studies to fill critical data needs" [Amendment, p. A-7];

As more fully explained below, however, the proposed Amendment has defects that should be corrected.

1. Available data are inadequate to support the Staff Report's 2.3 kg/yr estimate of POTWs' annual PCB loading to the Bay.

According to the RWQCB's February 2, 2008 Staff Report[1] (pp. 42-44), the 2.3 kg/yr estimate is based on 23 data points collected from November 1999 through February 2001. These consist of nine data points from five secondary-treatment POTWs and 14 data points from four advanced-treatment POTWs. That works out to an average of 1.6 data points per POTW. These data are insufficient to support the estimate for several reasons.

First, the data set is much smaller than is customarily used in analogous situations. For example, for the mercury TMDL, the data set included at least 12 data points for every major discharger and over 600 data points in all.

Second, the small number of data points is particularly problematic here, because, as the Staff Report notes:

- the PCB data are subject to a high degree of variability [Staff Report pp. 63, 65, 72];
- the data variability problem is worsened because it is combined with the inherent variability in POTW systems, which requires a "substantial data set" [Staff Report, p. 72];
- the PCBs are "difficult to measure" [Staff Report, p. 72];
- the PCBs are "present at very low levels" [Staff Report, pp. 72];
- differing analytical methods used to collect the various data points raise confounding "data comparability issues" [Staff Report, p. 20]; and
- the analytical methods can have "poor precision" [Staff Report, p. 20].

Therefore, the SWRCB should decline to approve those portions of the proposed Amendment that relate to, depend on or are derived from the 23-point data set. Those portions should be remanded with instructions to (1) collect a more robust and reliable data set and (2) take such actions are appropriate based on that data set.

2. The proposed categorical load allocation of 2.0 kg/yr for the POTW source category is improper.

Even if the 2.3 kg/yr estimate of current POTW loading were supported by adequate data, which it is not, the proposed 2.0 kg/yr categorical load allocation for the POTW source category would be improper.

[1] http://www.swrcb.ca.gov/sanfranciscobay/board_info/agendas/2008/february/tmdl/apps_pcbs_staffrept.pdf

The Staff Report states:

- "the proposed individual wasteload allocations for municipal wastewater dischargers reflect current performance levels" [Staff Report, p. 66]; and
- "Wasteload allocations for municipal and industrial wastewater discharges reflect current PCBs loads" [Staff Report, p. 72].

The City agrees that POTW waste load allocations should be based on current performance. Yet the RWQCB assigned a POTW-group wasteload allocation of 2.0 kg/yr, rather than the RWQCB's own estimate of current performance, 2.3 kg/yr. The RWQCB cited two reasons for this 13% reduction in the current performance figure, neither of which is proper.

First, the RWQCB asserted that it was simply rounding to the nearest whole number: "The wasteload allocations for municipal wastewater dischargers total 2 kg/yr, which reflects the current estimated aggregate load to the nearest kg/yr." Staff Report, p. 65 [emphasis added]. None of the other group wasteload allocations was rounded, and there is nothing in the record suggesting rounding is appropriate in this instance.

Second, the RWQCB asserted that, "Although this [2 kg/yr] is lower than our actual estimate of 2.3 kg/yr, [it] reflects anticipated decreases in current loadings expected from implementation actions and degradation of PCBs in sources to wastewater systems." Staff Report, p. 65. Again, none of the other group wasteload allocations was adjusted to account for such "anticipated decreases." Plus, there is no evidence in the record to support the adjustment chosen in the POTW-group's case.

Therefore, the SWRCB should decline to approve those portions of the proposed Amendment that relate to, depend on or are derived from the 2 kg/yr figure. Those portions should be remanded with instructions to (1) treat all group wasteload allocations equitably and (2) cite evidence in the record supporting any adjustments to group wasteload allocations.

3. The proposed Amendment should be modified to clarify that compliance determinations must be made using Method 608 and the 41 PCB congeners that were analyzed to produce the 23 data points (from 1999-2001) upon which POTW wasteload allocations were based.

The Amendment (at p. A-7) states, "Compliance with effluent limits shall be determined using a Title 40, Code of Federal Regulations, Part 136 analytical method." The currently prescribed method is Method 608.

There are 209 PCB congeners. Staff Report, p. 14. Only 41 of these were analyzed to produce the 23 data points (from 1999-2001) upon which the POTW wasteload allocations were based.

Future study may determine that a new method (Method 1668 is the most likely candidate) should be used and additional (or different) congeners should be analyzed. If so, the results will not be comparable to the results upon which the POTW wasteload allocations were based.

Therefore, to avoid "apples-to-oranges" compliance-determination errors, the above-quoted language should be changed to read,

> "Compliance with effluent limits shall be determined using the Title 40, Code of Federal Regulations, Part 136 analytical method 608 and analyzing for the same PCB congeners that were analyzed to produce the data points on which the relevant wasteload allocation was based."

* * *

The City appreciates the opportunity to submit these comments. If you or your colleagues have any questions, please do not hesitate to contact the undersigned.

Sincerely,

Margaret Prehn Ott, P.E.
Engineering Manager
Ellis Creek Wastewater Treatment Facility

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