STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

STAFF SUMMARY REPORT (Fred Hetzel)
MEETING DATE: February 18, 2004

ITEM: 10

SUBJECT: **TOTAL MAXIMUM DAILY LOAD FOR PCBs IN SAN FRANCISCO BAY – Status Report**

DISCUSSION: All San Francisco Bay (Bay) segments are included on the States 303(d) list of impaired waters due to excessive levels of polychlorinated biphenyls (PCBs). As such, the State is required to establish the total maximum daily load (TMDL) of PCBs that the Bay can receive and still meet water quality standards. On January 8, 2004, we released a TMDL project report that compiles and describes the results of our efforts to develop the TMDL. The report is an important milestone in the TMDL process, and it provides stakeholders the opportunity to comment on the technical aspects of the PCBs TMDL. This is especially important, as the information contained in this report will form the basis of the Basin Plan Amendment to formally establish the TMDL that will come before the Board for consideration later this year.

PCBs are a family of 209 toxic, persistent organic compounds. They can cause a variety of adverse human health effects including disruption of the immune, reproductive, nervous and endocrine systems. PCBs bioaccumulate and biomagnify in the food web, and thus low concentrations of PCBs in the aquatic environment can result in high concentrations in fish. There is a fish consumption advisory for humans based partially on measured concentrations of PCBs in sport fish in San Francisco Bay. This advisory is considered an indicator of impairment of the Ocean, Commercial, and Sport Fishing beneficial use. There are also concerns with potential adverse affects of PCBs on wildlife.

A TMDL is a plan to attain water quality standards and protect beneficial uses of a water body. The complete TMDL consists of a problem statement, numeric target(s) tied to attaining water quality standards, source identification and assessment, linkage of sources and targets, allocations of loads including margin of safety, and implementation and monitoring plans. This project report contains results of our analyses and resulting recommendations pertaining to all these elements.

The sources and loadings analysis identified urban runoff and Central Valley inputs as the major PCBs loads to the Bay. Treated wastewater PCBs loads are small, but not insignificant. The overall PCBs loads to the Bay are small compared to the mass of PCBs already in the Bay sediments. However, a model that predicts the mass of PCBs in the Bay into the future indicates that small reductions in current loads of PCBs will greatly accelerate the natural recovery process of the Bay.

The report includes proposed PCBs targets for fish tissue and sediment designed to reflect attainment of water quality standards. Load and wasteload allocations for

each of the current sources are also proposed, along with remedial actions of in-bay sediments with elevated PCBs concentrations. Reduced loading of PCBs to the Bay and selective remediation of in-bay PCBs is projected to accelerate the ecological recovery of the Bay from the impairment caused by PCBs.

In the coming months, we will refine the implementation and monitoring plans with input from the stakeholders. The implementation plan will describe the actions within in each source category to attain load allocations and criteria for success for these actions. The monitoring plan will present the long term data needs to confirm the effectiveness of the implemented activities and attainment of water quality standards. Adaptive implementation and management strategies will be inherent in these plans such that regular review and modification can be made.

The next steps in the process include revisions to the report and CEQA and regulatory analyses as part of and to support preparation of a draft Basin Plan Amendment package. The technical basis of the proposed regulatory actions will be subjected to scientific peer review. We expect the process to culminate with a public notice and formal comment period this summer leading to consideration by the Board this fall. We will provide the Board with regular updates as we continue to work with stakeholders, particularly the Clean Estuary Partnership and the San Francisco Estuary Institute, to develop and implement the best possible PCBs TMDL.

RECOMMEN-DATION: No action necessary at this time.

Appendix A: PCBs in San Francisco Bay Total Maximum Daily Load Project Report (Board members only)
Copies available upon request or via
http://www.swrcb.ca.gov/rwqcb2/sfbaypcbstmdl.htm (PDF file, 3.1 M).

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File No.2169.6052 (FH)