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

STAFF SUMMARY REPORT (Sandia Potter)
MEETING DATE: April 16, 2003

ITEM: 11

SUBJECT: **SEDIMENT TMDLS IN THE SAN FRANCISCO BAY REGION - Status Report**

DISCUSSION: Steelhead, salmon, and other native aquatic species have declined substantially during the past half-century in Bay Area streams. Too much fine sediment appears to be one factor in the decline. Other important factors may include low baseflow, substantial habitat degradation and loss, and numerous barriers to fish migration. Nine Bay Area streams are on the 303(d) list as impaired by too much sediment: Walker Creek, Lagunitas Creek, Petaluma River, Sonoma Creek, Napa River, San Gregorio Creek, San Francisquito Creek, Pescadero Creek, and Butano Creek. The listed streams drain 1100 square miles, or about one quarter of the total land area in our region. These streams are regionally significant from a conservation biology standpoint as they provide critical habitat for at-risk species. We are developing TMDLs aimed at protecting and enhancing native fish and wildlife populations in these streams. The attached report (Appendix A) provides an overview of our approach to developing sediment TMDLs and a schedule for active sediment TMDL projects.

Sediment may impair habitat in a number of ways. When sediment supply is high compared to transport capacity, fine sediment can be deposited in the streambed, smothering spawning sites and filling pools. Increases in amount of fine sediment may also cause more frequent and deeper scour during storms, leading to direct mortality of incubating eggs and juvenile fish. Fishery declines are not the only concern associated with too much sediment, other concerns include: loss of municipal water supply due to sediment rapidly filling reservoirs and elevated turbidity levels, and flooding problems.

Our sediment TMDL approach and efforts entail the following:

1) Confirming the nature of impairment by identifying and ranking significant limiting factors for fish (using a limiting factors analyses);
2) Evaluating sediment inputs and sources (using sediment budget analyses);
3) Evaluating causes of other limiting factors, such as habitat degradation, lack of baseflow, and migration barriers (through watershed assessments);
4) Establishing narrative and numeric targets needed to support fish in good condition; and
5) Identifying and evaluating sediment source reduction strategies and other appropriate implementation actions.

We are exercising a watershed-based approach to develop and carryout implementation plans. We realize that the best solutions will be those "owned" by stakeholders, so recognition of stewardship efforts that result in self-determined implementation of best management practices is key. We are encouraging stakeholders and other agencies to incorporate into existing programs (e.g., flood protection) implementation measures to reduce sediment and improve fish habitat. Most importantly, we continually seek and apply financial incentives, particularly grants via our non-point source program, Prop 13, and CALFED.

Our initial focus has been on the Napa River, Sonoma Creek, and San Francisquito Creek. We are making considerable progress in these watersheds and expect to complete major reports next fiscal year that compile the findings and results and recommendations of our collaborative efforts. We will provide the Board with regular updates on these and other projects as we work to develop the best possible sediment TMDLs for our streams.

RECOMMEN-DATION: No action is necessary at this time.

APPENDIX A: Conceptual Approach for Developing Sediment TMDLs for San Francisco Bay Area Streams