

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

STAFF SUMMARY REPORT (Richard Looker)  
MEETING DATE: April 17, 2002

ITEM: 11

SUBJECT: **OVERVIEW OF PROPOSED BASIN PLAN AMENDMENT TO ESTABLISH SITE-SPECIFIC WATER QUALITY OBJECTIVES AND WATER QUALITY ATTAINMENT STRATEGIES FOR COPPER AND NICKEL IN SOUTH SAN FRANCISCO BAY, SOUTH OF THE DUMBARTON BRIDGE - Status Report**

DISCUSSION: The purpose of this item is to provide background information on some technical and policy aspects of proposed Basin Plan amendments to be presented for consideration by the Board at their May 22 meeting. The proposed amendments would accomplish the following:

- establish site-specific water quality objectives for copper and nickel in South San Francisco Bay, south of the Dumbarton Bridge (Lower South SF Bay) that are fully protective of aquatic life beneficial uses; and
- establish a Water Quality Attainment Strategy featuring pollution prevention, source control, and monitoring activities for copper and nickel that not only supports the site-specific water quality objectives but also maintains existing water quality.

Lower South SF Bay is on the Clean Water Act §303(d) list of impaired waters due to copper and nickel. In 1998, we began the process to establish the Total Maximum Daily Loads (TMDLs) for these metals necessary to eliminate the impairment of this waterbody with leadership and funding from the City of San Jose in conjunction with the Santa Clara Basin Watershed Management Initiative (SCBWMI). The SCBWMI is a collaborative effort of representatives from regional and local public agencies, resource agencies, business and industrial sectors, professional and trade organizations, civic, environmental, resource conservation and agricultural groups, and the general public. The City of San Jose and other municipalities provided over two million dollars to fund not only technical studies but also a facilitated stakeholder participation process that included funding technical representation for environmental organizations.

The TMDL project focused on an assessment of impairment to determine if levels of copper and nickel in Lower South SF Bay were negatively impacting aquatic life beneficial uses. This included evaluation of numerical water quality objectives protective of aquatic life. Other efforts included characterization of sources of copper and nickel, development of a model relating sources to levels of copper and nickel in Lower South SF Bay, and identification of pollution prevention and control actions.

The main findings of the project endorsed by a panel of technical experts are:

- the chemical features of Lower South SF Bay reduce the toxicity and bioavailability of copper and nickel through a variety of mechanisms; and
- levels of copper and nickel in Lower South SF Bay have been significantly reduced and are less than proposed site-specific water quality objectives that are protective of aquatic life beneficial uses.

As such, with establishment of the site-specific water quality objectives and maintenance of existing pollution prevention and control actions, Lower South SF Bay should no longer be considered impaired by copper and nickel.

The site-specific water quality objectives must be supported by an implementation plan. For this and other TMDL-related projects, we refer to this implementation plan as a Water Quality Attainment Strategy (WQAS). In this case, the proposed copper and nickel site-specific water quality objectives are currently being achieved and, therefore, must be maintained. Therefore, the WQAS for copper and nickel in Lower South SF Bay is designed to prevent water quality degradation and ensure the ongoing attainment of the site-specific water quality objectives. The WQAS includes:

- current control measures to minimize copper and nickel discharges from municipal wastewater and urban runoff sources;
- statistically-based water quality “triggers” and a receiving water monitoring program that would initiate additional control measures if the “triggers” are met;
- a proactive framework for addressing increases to copper and nickel concentrations if they occur in the future; and
- metal translators that will be used to compute copper and nickel effluent limits for the municipal discharges to Lower South SF Bay.

The TMDL project addressing copper and nickel in Lower South SF Bay was a success largely because of adequate funding for quality scientific information on which to base decisions along with substantial stakeholder involvement in every decision made as part of the process. Because of this, there is broad consensus among the stakeholders concerning the methodologies employed and the project outcomes.

The staff report providing full details of the amendment and its technical background was made available on April 5 for public comment and is posted on our web site [www.swrcb.ca.gov/~rwqcb2/](http://www.swrcb.ca.gov/~rwqcb2/).

RECOMMEN-  
DATION:

No action necessary at this time.

APPENDIX A:

Public Notice and Staff Report providing background information for the proposed Basin Plan amendments along with the text of the amendments (for Board Members only).