

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

STAFF SUMMARY REPORT (Mike Napolitano)
MEETING DATE: September 13, 2006

ITEM: 12

SUBJECT: Proposed Amendment to the Water Quality Control Plan (Basin Plan) for the San Francisco Bay Region to Establish a Total Maximum Daily Load (TMDL) for Sediment in Napa River, and an Implementation Plan to Achieve the TMDL and Related Habitat Enhancement Goals - Hearing to Receive Testimony on Proposed Amendment

CHRONOLOGY: June 2006 – Public Notice of Proposed Basin Plan Amendment

DISCUSSION: This is the first of two hearings on a Basin Plan amendment to establish a TMDL and implementation plan to control sediment supply and enhance habitat conditions in Napa River and its tributaries. The proposed amendment and supporting staff report (Appendix A) were available for public comment for 45 days. This hearing provides an opportunity for stakeholders to communicate their interests directly to the Board and for Board members to ask questions of staff and stakeholders.

The proposed amendment is a product of six years of scientific study, many meetings with watershed stakeholders and local agency staff, and early implementation actions to reduce sediment discharges and enhance stream habitat conditions. We recently participated in several community meetings in the Napa Valley to discuss our scientific findings, the TMDL program, and the proposed amendment.

The second hearing is currently scheduled for the November 2006 Board meeting. By then, we will have completed responses to all written comments and comments presented at this first hearing, and we will revise the proposed Basin Plan amendment and staff report as appropriate. The Board will then be able to both consider the comments and responses and to establish the TMDL and habitat enhancement goals by adopting the proposed Basin Plan amendment.

Background

In 1990, based on evidence of widespread erosion in the Napa River watershed and the resultant threats to fish habitat, the Napa River was placed on the federal impaired waterbodies list for sedimentation. Beneficial uses impaired as a result of excessive sedimentation in the watershed include cold freshwater habitat, wildlife habitat, fish spawning, recreation, and preservation of rare and endangered species. Although steelhead and salmon runs appear to have declined substantially since the 1940s, the Napa River is believed to support the largest remaining steelhead run in any of the streams draining directly into San Francisco Bay, and in recent years a few to several hundred Chinook salmon have spawned in the river and its tributaries. In fact, the

Napa River supports an exceptional diversity of native fish species that is unsurpassed in the Bay Area and is of statewide significance. In the course of our work, we conducted a number of detailed studies that documented a high concentration of fine sediment in the streambed, and significant channel incision (a process in which the Napa River is cutting down into its own bed and banks and lowering its elevation, eroding sediment that then degrades downstream reaches of the river). Both of these phenomena impair spawning and rearing habitat for steelhead and Chinook salmon. We also documented other significant factors in the decline of steelhead and salmon runs in the watershed including low summer baseflows and stressful water temperatures, human-made barriers to fish migration (e.g., dams, road crossings, etc.), and diminished habitat complexity (as a result of channel incision and a paucity of large woody debris in channels).

We mapped the watershed's entire channel network, and prepared a sediment source analysis that shows that more than half of the fine sediment delivered to channels during the most recent decade was associated with land use activities including roads, erosion of the bed and banks of Napa River and lower reaches of its tributaries, vineyards, and intensive historical grazing. As part of this mapping effort we identified over 1100 reservoirs, more than 400 of which are constructed on stream channels. Thirty percent of the watershed drains into tributary water supply reservoirs; while these reservoirs capture a significant fraction of all sediment input to channels, the fine sediment load nevertheless remains substantially elevated in the Napa River.

Solving the Problem

The Basin Plan amendment would establish the following for the Napa River:

- Numeric targets for sediment that protect water quality
- TMDL equal to 125 percent of natural background sediment load
- Allocations for all significant sediment source categories
- Implementation plan to achieve the TMDL and related habitat enhancement goals (e.g., habitat complexity, baseflow, stream temperature, and fish passage)
- Plan and schedule for evaluating and monitoring progress toward meeting the targets

The implementation and monitoring/evaluation plans for sediment in the Napa River watershed anticipate an adaptive approach, which relies on our commitment to regular review of the TMDL, implementation actions, and progress in the watershed.

The proposed implementation plan emphasizes use of our regulatory authorities to develop general waste discharge requirement waiver programs for grape growers, ranchers, other rural property owners, and public agencies to reduce discharges of sediment to channels by 50 percent from their current fraction of the total sediment load, as needed to achieve the TMDL. It includes actions needed to attain the TMDL as well as actions that address the other factors that are adversely impacting the fishery. In developing this plan to address the sediment impairment listing, we are

utilizing the Board’s broader regulatory authorities to develop a holistic plan to enhance salmonid populations and the overall health of the native fish community.

In the plan, we recognize and support cooperative actions, locally initiated and already underway, to protect or enhance channel habitat quality, stream temperature conditions, fish passage, and baseflow. We also anticipate the need for cooperative partnerships among local, state, and federal government agencies to jointly resolve municipal water supply reliability and fisheries conservation concerns.

Comments from stakeholders

We received sixteen comment letters (Appendix B) regarding the proposed Basin Plan amendment and staff report.

Professor William Dietrich of the UC Berkeley, a senior scientific advisor to our project and an internationally recognized expert in the study of hillslope and river erosion and sedimentation, supports the methods, approach, and conclusions of the sediment source analysis, proposed numeric targets, and the linkage analysis for the TMDL. USEPA and the Department of Fish and Game (DFG) also support the scientific analyses presented in the staff report.

USEPA, NOAA Fisheries, DFG, Friends of the Napa River, the Napa Group of the Sierra Club, and Clean South Bay all support the breadth of the proposed implementation plan, and its value with regard to recovery of steelhead and salmon populations in the Napa River watershed.

However, other stakeholders are more qualified in their responses. Living Rivers Council takes issue with both the scientific conclusions and/or the legal adequacy of the TMDL. USEPA states that the waste load allocations and TMDL must be more detailed to be approvable. Napa County questions our cost estimates and CEQA analysis, and a number of municipalities are concerned about their responsibilities to protect or enhance base flows in the river, as well as the cost of actions required to enhance fish passage. The Farm Bureau advocates non-regulatory implementation of best management practices to control nonpoint sediment sources.

It is clear that sediment reduction in a watershed with recognized aesthetic and ecological values and extremely high property values is a controversial topic of great interest to many people. We will continue to work with all of the concerned parties to develop a TMDL and implementation plan that you can adopt with confidence that is responsive to local interests and such that the threatened fish populations have a strong chance of recovery in the Napa River watershed.

RECOMMEN-
DATION No action is necessary at this time.

APPENDICES: A. Proposed Basin Plan Amendment
 B. Supporting Staff Report
 C. Comment Letters