

**STATE OF CALIFORNIA  
REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL COAST REGION**

**STAFF REPORT FOR REGULAR MEETING OF MARCH 20-21, 2008**

Prepared February 27, 2008

**ITEM NUMBER: 20**

**SUBJECT: Amending the Water Quality Control Plan for the Central Coast Basin to Adopt Total Maximum Daily Loads for Pathogens in Aptos Creek, Valencia, Creek, and Trout Gulch**

**KEY INFORMATION**

This item recommends adoption of proposed Total Maximum Daily Loads (TMDLs) for pathogens in Aptos Creek, Valencia Creek, and Trout Gulch as a Basin Plan Amendment.

While developing the TMDLs, staff determined that an existing waste discharge prohibition for the Aptos-Soquel Subbasin (Aptos-Soquel Subbasin prohibition) should be modified to include specific non-point sources of fecal indicator bacteria. The modification to the existing prohibition is proposed in Resolution No. R3-2008-0001; a resolution presented in a previous agenda item at today's Central Coast Regional Water Quality Control Board hearing, March 20-21, 2008.

**SUMMARY**

Aptos Creek and Valencia Creek were placed on the Clean Water Act section 303(d) list of impaired waters in 1994. These waters were listed as impaired due to pathogens.

In this item, staff recommends the Central Coast Water Board adopt the pathogen TMDLs and an Implementation Plan to restore the water-contact recreation beneficial use to Aptos Creek, Valencia Creek, and Trout Gulch.

This staff report summarizes the TMDL elements. The attachments support summary statements made in this staff report.

The technical report that supports the Basin Plan Amendment is the Project Report for the TMDLs. The Project Report (listed as Attachment 2 to this staff report) is available at the Central Coast Water Board website at <http://www.waterboards.ca.gov/centralcoast/Board/Meetings/2008meetings.htm>. Click on "view agenda" for March 20-21, 2008; then click on Item 20, TMDLs for Pathogens in Aptos Creek Watershed. Staff did not include the document in the staff report to save paper. Paper copies are available upon request.

Staff recommends that the Central Coast Water Board use existing waste discharge requirements, the National Pollutant Discharge Elimination System (NPDES) General Permit for stormwater discharges, and the Aptos-Soquel Subbasin prohibition modification proposed for approval at today's meeting in Item 18, (Resolution No. R3-2008-0001), as the implementation mechanisms to achieve the TMDLs.

## PROJECT DEVELOPMENT FOR TMDLs

Staff used water quality data collected by the County of Santa Cruz to assess pathogen conditions in surface waters. Staff also used a report prepared by the County of Santa Cruz, Environmental Health Service Water Resources Program titled *Assessment of Sources of Bacterial Contamination at Santa Cruz County Beaches* prepared in March 2006 (Proposition 13 Report). This Proposition 13 Report contains *E. coli* ribotyping results. Staff also used discharger data and reports, land use data, field reconnaissance work, and conversations with staff from other agencies to complete the source analysis.

## PROBLEM STATEMENT AND NUMERIC TARGET

The Basin Plan contains fecal coliform water quality objectives to protect water contact recreation. Current levels of fecal coliform are not supportive of the water contact recreation beneficial use in Aptos Creek, Valencia Creek, and Trout Gulch.

The numeric target for the TMDLs is equal to the water quality objectives protecting water contact recreation, which are:

“Fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200 MPN per 100 mL, nor shall more than 10 percent of samples collected during any 30-day period exceed 400 MPN per 100 mL.”

## SOURCE ANALYSIS

The relative order of controllable sources contributing pathogens (indicated by fecal indicator bacteria, e.g. fecal coliform) to Aptos Creek, Valencia Creek, and Trout Gulch (from largest to smallest source) is: (1) storm drain discharges to municipally owned and operated storm sewer systems required to be covered by an NPDES permit (MS4s), (2) pet waste in areas that do not drain to MS4s, (3) County of Santa Cruz sanitary sewer collection system spills and leaks, (4) private sewer laterals that connect to municipal sewage system collection systems, and (4) farm animals/livestock discharges.

## TMDLs AND ALLOCATIONS

The TMDLs and allocations for pathogens in Aptos Creek, Valencia Creek, and Trout Gulch are equal to the Basin Plan water quality objectives for fecal coliform.

The responsible parties for controllable sources are the County of Santa Cruz, owners of land used for/containing pets, the Santa Cruz County Sanitation District, owners of private sewer laterals, and owners of land used for/containing farm animals/livestock. Each responsible party is assigned the same allocation and the allocation is equal to the Basin Plan water quality objectives for fecal coliform. Natural sources are also assigned an equal allocation. The parties responsible for the allocation to controllable sources are not responsible for the allocation to natural sources. Table IX – K - 1. in the Resolution, contained within Attachment 1, shows these allocations to the responsible parties.

## **IMPLEMENTATION PLAN**

The proposed Implementation Plan in the Resolution, contained within Attachment 1, describes the responsibilities of each responsible party and the steps the Central Coast Water Board or the Executive Officer will take to require actions by the responsible parties.

Central Coast Water Board staff developed an implementation strategy (Plan) to implement these TMDLs that reflects our current understanding of pathogen loading in the Aptos Creek Watershed. The Plan establishes that the Executive Officer will require responsible parties to implement identified actions that will reduce pathogen loading, monitor pathogen source reductions, and report progress and results of monitoring to the Central Coast Water Board.

Implementation is required pursuant to existing regulatory authority through currently held waste discharge requirements, the NPDES General Permit for stormwater discharges from municipalities, and the Aptos-Soquel Subbasin prohibition.

The Implementation Plan explains that if natural sources are found to cause the impairment, and/or if responsible parties demonstrate that controllable sources of pathogens are not contributing to the exceedance of water quality objectives in receiving waters, staff will re-evaluate the TMDL, targets and allocations and propose revisions to the Central Coast Water Board. For example, staff may propose a site-specific objective for Aptos Creek Watershed waters. A site-specific objective would be proposed as a Basin Plan Amendment through the appropriate adoption and public review procedures required by the Central Coast Water Board, State Water Resources Control Board, and United States Environmental Protection Agency.

## **MONITORING PLAN**

The Implementation Plan establishes that the Executive Officer will require responsible parties to monitor pathogen source reductions, and report progress and results of monitoring to the Central Coast Water Board. Central Coast Water Board staff developed a recommended set of locations and will work with responsible parties to establish on-going monitoring at these locations. Responsible parties will conduct the monitoring and submit results to the Central Coast Water Board. Staff will evaluate the monitoring data on an on-going basis, as well as during three year assessments to determine progress towards achieving the allocations and TMDLs.

Central Coast Water Board staff proposes storm drain sampling to evaluate reductions in pathogen loading from storm drains and effectiveness of the stormwater management plan. The County of Santa Cruz will work with Central Coast Water Board staff to identify which stormwater outfalls to monitor based on representative flows and the volume of discharge (loading potential), among other factors. The Central Coast Water Board Executive Officer will review and approve the final monitoring plan, request modifications if necessary, or may require specific monitoring.

## **TIME-SCHEDULE FOR TRACKING PROGRESS AND ACHIEVING THE TMDLS**

Staff will evaluate implementation and numeric target monitoring data every three years to determine if changes to implementation actions or monitoring are warranted.

The target date to achieve the TMDLs is 13 years after the effective date of the TMDLs which is the date of approval by the California Office of Administrative Law. This projection is based on anticipated implementation schedules of the responsible parties, which are in turn based on economic and logistic considerations.

## **ENVIRONMENTAL SUMMARY**

The California Resources Agency has certified the basin planning process in accordance with section 21080.5 of the Public Resources Code. The process is therefore exempt from Chapter 3 of the California Environmental Quality Act (CEQA). The analysis contained in the Final Project Report (Attachment 2), the CEQA Substitute Environmental Document (Attachment 3, this staff report), and the responses to comments complies with the requirements of the State Water Board's certified regulatory CEQA process, as set forth in California Code of Regulations, Title 23, section 3775 et seq. Furthermore, the analysis fulfills the Central Coast Water Board's obligations attendant with the adoption of regulations "requiring the installation of pollution control equipment, or a performance standard or treatment requirement," as set forth in section 21159 of the Public Resources Code. All public comments were considered.

## **ANTI-DEGRADATION**

This order is consistent with the provisions of the State Water Resources Control Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California" and 40 CFR 131.12. The TMDLs will result in improved water quality throughout the Watershed and maintains the level of water quality necessary to protect existing and anticipated beneficial uses.

## **SCIENTIFIC PEER REVIEW**

The Peer reviewer provided comments to staff in October 2007. Staff prepared responses and revised the TMDL report in response to these comments in October and November 2007, prior to distributing for Public Comments. Peer Review comments and staff responses are included in Attachment 6. These comments resulted in minor changes, mostly with regard to pathogen indicator organisms and the monitoring plan, as indicated in the staff responses.

## **PUBLIC INVOLVEMENT**

Staff made a presentation on November 15, 2005 to the Technical Advisory Committee assisting with the Proposition 13 grant to assess bacterial contamination at Santa Cruz County beaches. Staff solicited comments at that meeting. Staff held phone meetings with key personnel from the County of Santa Cruz.

Staff also received verbal comments at a June 26, 2006 public workshop/CEQA scoping meeting. At this meeting, staff announced that staff would accept (1) verbal comments at the public workshop and (2) written comments received by Wednesday, July 12, 2006. (The workshop notice stated staff would not provide a written response for each comment received, but would incorporate written responses to all significant environmental comment in the final reports provided to the Central Coast Water Board.) Staff also told stakeholders that written responses to individual comments submitted during the formal public comment period would be prepared. Staff responded to comments by making changes, where appropriate, to draft documents subsequent to this meeting.

This Staff Report, Resolution, and other attachments were made available for formal public comment associated with this Central Coast Water Board Hearing on March 20-21, 2008. Comments were received by:

1. Teri Caddell, A-1 Septic Service, Inc. in a letter dated December 6, 2007,

2. John Ricker, Water Resources Division Director, Santa Cruz County Environmental Health Services, in an email dated January 23, 2008.

Staff made minor changes to Basin Plan Amendment Documents as a result of these comments. Staff added more detail to the source analysis to address both Teri Caddell's and John Ricker's comments. John Ricker's comments also lead staff to make minor changes to the project report regarding clarity on the basis for impairment. Staff also slightly modified a proposed wastewater discharge prohibition to help address Ricker's comments. The proposed wastewater discharge prohibition is part of the San Lorenzo TMDL Basin Plan amendment package.

Public comments and staff responses are included in Attachment 7 to this Staff Report.

## **RECOMMENDATION**

Adopt Resolution No. R3-2008-0003 contained in Attachment 1, as proposed to amend the Basin Plan to Adopt Total Maximum Daily Loads for Pathogens in Aptos Creek, Valencia, Creek, and Trout Gulch.

## **ATTACHMENTS:**

The attachments are available at:

<http://www.waterboards.ca.gov/centralcoast/Board/Meetings/2008meetings.htm>. Click on "view agenda" for March 20-21, 2008; then click on Item 20, TMDLs for Pathogens in Aptos Creek Watershed

1. Resolution No. R3-2008-0003,
2. Final Project Report: "Total Maximum Daily Loads for Pathogens in Aptos and Valencia Creeks, Including Trout Gulch, Santa Cruz County, California, For the March 20-21, 2008 Water Board Meeting
3. CEQA Substitute Document
4. Notice of Public Hearing / Notice of Filing
5. CEQA Filing Fee No Effect Determination Form
6. Scientific Peer Review Comment
7. Public Comment and Staff Response