STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

STAFF REPORT FOR REGULAR MEETING OF July 7, 2006
Prepared on June 14, 2006

ITEM: **9**

SUBJECT: **Adoption of the Total Maximum Daily Load (TMDL) for Nutrients and Dissolved Oxygen for Chorro Creek.**

SUMMARY

This item requests the Central Coast Water Board adopt the Chorro Creek Nutrient and Dissolved Oxygen TMDL by approving Resolution No**.** R3-2006-044. Achieving the TMDL will restore protection of aquatic-related beneficial uses associated with water column nutrients and dissolved oxygen.

The TMDL is being implemented through the approved and existing NPDES permit for the wastewater facility of the California Men's Colony. The TMDL is also being implemented through the existing restoration project described as the Chorro Flats Project. No new regulatory actions are needed to implement the TMDL for Nutrients and Dissolved Oxygen in Chorro Creek.

BACKGROUND

Chorro Creek (Creek) was placed on the 1998 303(d) list as impaired by nutrients. The Creek is also on the draft 2006 303(d) list as impaired due to low dissolved oxygen.

Chorro Creek watershed is located in northern San Luis Obispo County, north of the City of San Luis Obispo. Chorro Creek drains to the Morro Bay Estuary (Estuary).

The Estuary is one of only twenty estuaries recognized by the National Estuary Program of the United States Environmental Protection Agency. Citizens and agencies have successfully funded and implemented several watershed restoration and best management projects in the Chorro Creek watershed to benefit the Estuary. The impact of these projects will help achieve the proposed TMDL.

IMPAIRMENT

Chorro Creek is impaired due to the excursion of the water quality objectives for biostimulatory substances and dissolved oxygen.

Benthic algae levels in lower Chorro Creek exceed USEPA recommendations. In addition, existing benthic algae levels are exacerbating low dissolved oxygen conditions in the lower portion of the Creek.

Staff has interpreted existing benthic algae cover and dissolved oxygen concentration as indicators of the excursion of the narrative water quality objective for biostimulatory substances. In addition, dissolved oxygen concentrations in the lower reaches of the Creek are not within the range protective of cold freshwater habitat, as described in the Basin Plan.

CAUSES OF IMPAIRMENT

Low dissolved oxygen in Chorro Creek is being caused, in part, by the respiration of benthic algae. In addition, oxygen input in the lower reaches of the Creek is minimal due to a lack of turbulent flow. The loading of salts and increase in water temperature by the California Men's Colony (CMC) wastewater facility causes a reduction of oxygen saturation in the Creek.

Benthic algal growth results from many factors, including increased temperature and nutrient concentration. In addition, the historic removal of riparian vegetative canopy helps drive algal growth through increased photosynthesis, as well as through increased water temperature from direct sunlight.

IMPLEMENTATION

The TMDL will be achieved through a combination of efforts resulting in *improved water quality and watershed condition*. Improvements to chemical and physical water quality will be accomplished through: 1) modification of the CMC discharge, and 2) watershed improvements in the riparian zone.

The CMC is currently building a plant upgrade that will be online midyear 2006. The upgrade is expected to result in achieving the allocations proposed in the TMDL project report. Limitations on the discharge from the treatment plant, required in the National Pollutant Discharge Elimination System Permit, implement the wasteload allocations assigned to CMC. In addition, the existing Chorro Flats restoration project will increase shading and provide a more complex flow pattern. These improved water quality conditions should resolve the impairment.

Staff will monitor the success of these efforts and their impact on the impairments into the TMDL implementation phase. Three-year review periods will be used to determine if the recommended implementation measures are adequate to achieve the TMDL, or, if further implementation measures are necessary.

Staff estimates that the TMDL will be achieved by 2016. The estimate is based on the expected time for the existing restoration projects to fully mature and result in water quality improvement.

ENVIRONMENTAL SUMMARY

The action proposed in the Resolution is not a "project" that requires compliance with the California Environmental Quality Act (California Public Resources Code §21000 et seq.). The Water Board is not directly undertaking an activity, funding an activity or issuing a permit or other entitlement for use (Public Resources Code section 21065; 14 Cal. Code of Regs. §15378).

PUBLIC INVOLVEMENT

Staff has coordinated with personnel from the California Men's Colony wastewater treatment plant during TMDL development. In addition, staff has coordinated with personnel associated with the Morro Bay National Estuary Program during TMDL development.

This Staff Report, Attachments and the Resolution were made available for public comment for a period of 45 days beginning April 10, 2006. No public comments were received during the comment period.

ANTI-DEGRADATION

This resolution does not allow degradation or a decrease in water quality, and does not approve an activity that produces or may produce a waste or increased volume or concentration of waste or an activity that discharges or proposes to discharge to existing high quality waters. This resolution therefore complies with Resolution 68-16 and 40 CFR §131.12.

RECOMMENDATION

Adopt the Chorro Creek Nutrient and Dissolved Oxygen TMDL by approving Resolution No**.** R3-2006-044 contained in Attachment-1, as proposed.

ATTACHMENTS:

1. Resolution No. R3-2006-044
2. Final Project Report: Total Maximum Daily Load for Nutrients and Dissolved Oxygen in Chorro Creek. Available at R3 website: http://www.waterboards.ca.gov/centralcoast/TMDL/303dandTMDLprojects.htm

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