

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

**STAFF REPORT FOR REGULAR MEETING OF SEPTEMBER 9, 2005**

Prepared on June 8, 2005

**ITEM: 26**

**SUBJECT: Adoption of the San Luis Obispo Creek Total Maximum Daily Load (TMDL) and Implementation Plan for Nitrate-Nitrogen as a Basin Plan Amendment**

**SUMMARY**

This item requests the Board adopt the referenced TMDL as a Basin Plan Amendment. Achieving the TMDL will restore protection of the municipal and domestic water supply (MUN) beneficial use for San Luis Obispo Creek. The MUN beneficial use is currently not being protected due to exceedence of the Basin Plan numeric objective for nitrate of 45 mg/l NO<sub>3</sub>.

Implementation of the TMDL will rely upon the following regulatory mechanisms: existing NPDES permits and Cease and Desist Order (CDO) for point discharges, and conditions for waivers for the non-point source load from irrigated agriculture. Staff anticipates that the TMDL will be achieved by the year 2012.

**BACKGROUND**

San Luis Obispo Creek (Creek) was placed on the 303(d) list for nutrients in 1994. There was no accompanying data supporting the listing, nor was the specific impairment stated.

Staff began collecting water quality data and related information in 2001, in an

effort to determine sources of nutrients in the watershed as well as potential impairments caused by nutrient loading. Staff considered impairment due to exceedence of the nitrate-Nitrogen or nitrate-N objective, violation of the biostimulatory substances narrative objective, and threat of toxicity from nitrate-N, nitrite, and unionized ammonia.

Staff has concluded that the single verifiable impairment at this time is non-protection of the MUN beneficial use, due to exceedence of the numeric water quality objective for nitrate-N.

This TMDL addresses the impairment of MUN and articulates an implementation plan aimed at rectifying the impairment.

**DATA COLLECTION AND ANALYSIS**

The Basin Plan objective for nitrate expressed as nitrate (NO<sub>3</sub>-NO<sub>3</sub>) is 45 mg/L-NO<sub>3</sub>, which is equivalent to nitrate-nitrogen (NO<sub>3</sub>-N) of 10 mg/L-N; staff will use the NO<sub>3</sub>-N unit in the following discussion.

Staff utilized data submitted by the City of San Luis Obispo Water Reclamation

Facility (WRF) as required by the Monitoring and Reporting Plan (M&RP) associated with the WRF NPDES permit. Central Coast Water Board staff also collected water column data.

Staff concludes that croplands and discharge from the WRF account for over 90% of the nitrate-N loading in the watershed and are the essential causes of impairment.

### IMPLEMENTATION

The numeric target is equal to the existing Basin Plan objective for nitrate-N protecting the MUN beneficial use. The numeric target is a receiving water nitrate-N concentration of 10 mg/L-N, and is used as the basis for the TMDL calculation.

An effluent limit for the WRF discharge will be added to the existing NPDES permit regulating this discharge. The limit will be incorporated at the next permit renewal scheduled for 2007. At the time of the permit renewal, staff will recommend that the Regional Board issue the WRF a Cease and Desist Order (CDO) that includes a time schedule to meet the effluent limit. The effluent limit is equal to the TMDL allocation to this source, which is a nitrate-N concentration allocation of 10 mg/L-N. In the nearer term (at the next permit renewal, anticipated to be March 2006), the Central Coast Water Board Executive Office (EO) or the Board itself intends to amend the monitoring and reporting program associated with this permit to incorporate both effluent and stream monitoring for nitrate-N.

Parties engaged in irrigated cropland activities are required to meet the conditions set forth in the Conditional

Waiver of Waste Discharge Requirements for Discharges to Irrigated Lands (Conditional Waiver). Meeting the conditions of the waiver will result in achieving the allocations to the cropland source. It is anticipated that the cropland allocation will be achieved by the year 2012.

Other sources of nitrate-N in the watershed, although insignificant relative to those discussed above, will be monitored to ensure that current nitrate-N loading levels do not increase; allocations to these sources are equal to current loading. Specifically, minimum implementation measures will be monitored through reporting requirements of the Small MS4 Stormwater Permit of the three permit holders (or anticipated permit holders) in the watershed.

### ENVIRONMENTAL SUMMARY

The basin planning process has been certified by the Resources Agency in accordance with Section 21080.5 of the Public Resources Code and is therefore exempt from Chapter Three of the California Environmental Quality Act (CEQA). The analysis contained in the Final Project Report, the CEQA Checklist, this staff report and the responses to comments complies with the requirements of the State Water Resources Control Board certified regulatory CEQA process, as set forth in California Code of Regulations, Title 23, section 3775 et seq. Furthermore, the Central Coast Water Board finds that the analysis fulfills the 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.

### STATE SCIENTIFIC PEER REVIEW

Peer Review comments were provided to staff on April 4, 2005. Staff prepared responses and revised the TMDL report in response to these comments in April 2005, prior to distributing for Public Comments. Peer Review comments and staff responses are included in Attachment-F. These comments resulted in minor changes, mostly clarification of existing information or recommendations, as indicated in the staff responses.

### PUBLIC INVOLVEMENT

Staff have met and/or spoken with stakeholders since the inception of the project. Staff has held several meetings both with representatives of the City of San Luis Obispo as well as with representatives in the environmental community. Staff has also communicated with landowners of irrigated croplands subject to the Conditional Waiver.

Staff Report, Attachments and the Resolution were made available for Public comment in June 2005. Comments were received in July 2005. Public Comments and Staff responses are included in Attachment-G to this Staff Report. These comments resulted in changes to the recommendations as indicated in the staff responses.

### RECOMMENDATION

Adopt Resolution No. R3-2005-0106 contained in Attachment A, as proposed.

### ATTACHMENTS:

- A. Resolution No. R3-2005-0106, including attachment "Proposed Basin Plan Amendments."
- B. Final Project Report: San Luis Obispo Creek Total Maximum Daily Load and Implementation Plan for Nitrate-Nitrogen, June 2005 is at <http://www.swrcb.ca.gov/rwqcb3/Board/Agendas/090905/ItemReports/Item26/Index.htm>
- C. California Environmental Quality Act "Functional Equivalent" Report for Basin Plan Amendment (Resolution No. R3-2005-0106)
- D. Notice of Public Hearing / Notice of Filing
- E. Draft Certificate of Fee Exemption/De Minimus Impact Finding
- F. Scientific Peer Review Comments and Staff Response
- G. Public Comment and Staff Response

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