State of California
California Regional Water Quality Control Board, Los Angeles Region

RESOLUTION NO. R4-2006-016
August 3, 2006

Amendment to the Water Quality Control Plan for the Los Angeles Region through revision of the Implementation Plan for the Upper Santa Clara River Chloride TMDL, Resolution 04-004

WHEREAS, the California Regional Water Quality Control Board, Los Angeles Region, finds that:

1. The federal Clean Water Act (CWA) requires the California Regional Water Quality Control Board (Regional Board) to develop water quality standards that are sufficient to protect beneficial uses designated for each water body found within its region.

2. A consent decree between the U.S. Environmental Protection Agency (USEPA), Heal the Bay, Inc. and BayKeeper, Inc. was approved on March 22, 1999. This court order directs the USEPA to complete Total Maximum Daily Loads (TMDLs) for all impaired waters within 13 years.

3. The elements of a TMDL are described in 40 CFR 130.2 and 130.7 and section 303(d) of the CWA, as well as in USEPA guidance documents (Report No. EPA/440/4-91/001). A TMDL is defined as the sum of the individual waste load allocations for point sources, load allocations for nonpoint sources and natural background (40 CFR 130.2). Regulations further stipulate that TMDLs must be set at levels necessary to attain and maintain the applicable narrative and numeric water quality objectives (WQOs), and protect beneficial uses, with seasonal variations and a margin of safety that takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality (40 CFR 130.7(c)(1)).

4. Upon establishment of TMDLs by the State or USEPA, the State is required to incorporate the TMDLs along with appropriate implementation measures into the State Water Quality Management Plan (40 CFR 130.6(c)(1), 130.7). This Water Quality Control Plan for the Los Angeles Region (Basin Plan), and applicable statewide plans, serves as the State Water Quality Management Plans governing the watersheds under the jurisdiction of the Regional Board.

5. The Santa Clara River is the largest river system in southern California that remains in a relatively natural state. The River originates on the northern slope of the San Gabriel Mountains in Los Angeles County, traverses Ventura County, and flows into the Pacific Ocean between the cities of San

Buenaventura (Ventura) and Oxnard. The predominant land uses in the Santa Clara River watershed include agriculture, open space, and residential uses. Revenue from the agricultural industry within the Santa Clara River watershed is estimated at over $700 million annually, and residential use is increasing rapidly both in the upper and lower watershed.

6. The upper reaches of the Santa Clara River include Reaches 5 and 6 which are located upstream of the Blue Cut gauging station, west of the Los Angeles – Ventura County line between the cities of Fillmore and Santa Clarita. Reaches 5 and 6 of the Upper Santa Clara River (USCR) appear on the EPA 303d list of impaired waterbodies (designated on the 2002 EPA 303d list as Reaches 7 and 8, respectively). Several beneficial uses of the USCR, including agricultural supply water (AGR), groundwater recharge (GWR), and rare, threatened, or endangered species habitat (RARE), are listed as impaired due to excessive chloride concentration in the waters of the USCR. Valencia and Saugus Water Reclamation Plants (WRPs), which are owned and operated by the County Sanitation Districts of Los Angeles County (CSDLAC), are two major point sources that discharge to the USCR.

7. At a public meeting on October 24, 2002, the Regional Board considered amending the Basin Plan to include a TMDL for chloride in the USCR. The proposed TMDL included interim waste load allocations for chloride for the WRPs. These interim waste load allocations provide the discharger the necessary time to implement chloride source reduction, complete site specific objective (SSO) studies, and make appropriate modifications to the WRP, as necessary, to meet the WQO for chloride. The interim waste load allocations proposed in the TMDL were based on a statistical evaluation of the WRPs' performance in the three years preceding October 2002.

8. The Regional Board considered the entire record, including written and oral comments received from the public and the Regional Board staff's response to the written comments. Resolution 02-018, the TMDL for chloride in the USCR, was adopted by Regional Board on October 24, 2002. Resolution 02-018 assigned waste load allocations (WLAs) to major publicly owned treatment works (POTWs), minor point sources, and MS4s permittees, discharging to specified reaches of the Santa Clara River.

9. At a public workshop on February 4, 2003, the State Board considered the TMDL for chloride in the USCR, the entire record, including written and oral comments received from the public and the State Board staff's response to the written comments. At a public meeting on February 19, 2003 the State Board adopted SWRCB Resolution 2003-0014 (the "Remand Resolution") which remanded the TMDL to the Regional Board.

10. In response to the Remand Resolution, Regional Board staff revised the TMDL Implementation Plan to address issues identified in the Remand Resolution. On July 10, 2003, the Regional Board adopted Resolution 03-008 to revise the Basin Plan to include a TMDL in the USCR. Resolution 03-008 contained interim waste load allocations for the Saugus and Valencia WRPs and assigned waste load allocations (WLAs) to major POTWs, minor point sources, and MS4s permittees discharging to specified reaches of the Santa Clara River.

11. During the time that the State and Regional Boards were considering the chloride TMDL, the National Pollutant Discharge Elimination System (NPDES) permits for the Valencia and Saugus Water Reclamation Plants (WRPs) were under consideration for renewal by the Regional Board. The NPDES permits also included interim discharge limits for chloride which differed from the TMDL interim waste load allocations. The NPDES interim limits are based on the chloride concentration of the water served from Castaic Lake for municipal supply in the Santa Clarita Valley plus a loading factor of 134 mg/L for the Valencia WRP and 114 mg/L for the Saugus WRP, measured as a twelve month rolling average. The loading values are the highest measured at each plant in the last 5 years.

12. On May 6, 2004, the Regional Board adopted Resolution 04-004 to revise the interim waste-load allocations and Implementation Plan for the chloride TMDL in the USCR. The revised Implementation Plan in attachment A of Resolution No. 04-004 supersedes the Implementation Plan contained in Resolution No. 03-008.

13. The Implementation Plan as specified in attachment A of Resolution No. 04-004 requires the completion of several special studies that serve to characterize the sources, fate, transport, and specific impacts of chloride in the USCR, including impacts to downstream reaches and underlying groundwater basins.

14. The first of the special studies, an evaluation of the appropriate chloride threshold for the reasonable protection of salt-sensitive agriculture, was completed in September of 2005. This special study, entitled "Literature Review and Evaluation (LRE)," was reviewed and largely corroborated by a Technical Advisory Panel (TAP) that issued a "Critical Review Report" of the LRE.

15. The LRE found that the best estimate of a chloride hazard concentration for avocado crops falls within the range of 100 to 117 mg/L. A similar range of 100 to 120 mg/L was found by the TAP. The existing WQO of 100 mg/L is within the recommended range for the reasonable protection of salt-sensitive crops.

16. In addition to the LRE special study, a collaborative report entitled "Chloride Source Identification/Reduction, Pollution Prevention, and Public Outreach Plan (Chloride Source Report)," was completed in November of 2005. This report, led by the CSDLAC, identifies sources of chloride in the USCR as well as strategies for reducing those sources. The potable water supply was identified as the largest source of chloride loading to the USCR. Self-Regenerating Water Softeners (SRWS) in the Saugus and Valencia service area were identified as the second largest source of chloride loading.

17. The second special study required by the Implementation Plan is the "Groundwater/Surface Water Interaction (GSWI) Model." The Regional Board and CSDLAC are working in cooperation to complete this model. Under existing TMDL, the GSWI is due May 4, 2007.

18. At a public hearing on November 3, 2005, the Regional Board was provided with an update on the status of the chloride TMDL and the results of the LRE study. The Board directed staff to evaluate whether revising the TMDL Implementation Plan is appropriate, and to consider the possible impacts of the high chloride level in surface water to groundwater quality.

19. Based on the conclusions of the LRE and the chloride source report, staff proposes four alternatives for the amendment to the Upper Santa Clara River Chloride TMDL: (1) a no-action alternative in which the Regional Board takes no action to revise the schedule, (2) an alternative that does not revise the 13-year TMDL implementation schedule but includes implementation milestones in years 6-13 of the TMDL schedule, (3) an alternative that extends the 13-year schedule, and (4) an alternative that accelerates the 13-year schedule. Staff recommends Alternative 4. Under this alternative, the Regional Board will consider a TMDL amendment to both accelerate the final compliance date and include time-certain tasks for tasks related to the design and treatment of chloride removal processes to reduce chloride loading if deemed necessary. Staff notes there is potential for additional chloride loading of 4 million to 7 million lbs per year while the interim limit (approximately 200 mg/L) is in effect instead of discharge at the WQO (100 mg/L). Staff however believes this discharge can be mitigated by accelerating the TMDL schedule.

20. The Remand Resolution directed the Regional Board to consider a phased approach so that the Districts can complete their implementation tasks by Regional Board specified dates sequentially and within 13 years. This direction was born of concerns expressed by stakeholders to the State Board that they should not be required to expend resources planning and constructing new technologies that the special studies could render unnecessary. The Regional Board, therefore, readopted the TMDL with a 13 year implementation plan. That 13-year period included five years for special studies, feasibility analysis and WQO revisions, if warranted, followed by

eight years for planning, design, and construction of the selected remedy. The eight year time schedule for planning, design, and construction was based on comments submitted by the Districts on October 7, 2002, with a supporting engineering study (Cost Impacts for Compliance with a 100 mg/L Instantaneous Chloride Discharge Limit at the Santa Clara Valley Water Reclamation Plants, Prepared by MWH, October 2002), that eight years is required to plan, design and construct advanced treatment for chloride.

21. With completion of the LRE, and the anticipated completion of the GSWI model by November 20, 2007, the Board finds that sufficient information will be available such that there is no prejudice to the Districts in initiating the feasibility tasks when the GSWI model is completed. Specifically, the LRE studies reveal that at most the WQO could be relaxed up to 117 mg/L, from 100mg/L. These results, coupled with the results of the GSWI modeling, will demonstrate whether the AGR and GWR beneficial uses could still be protected with SSOs that are sufficiently less stringent such that construction of advanced treatment systems would not be necessary. Subsequent TMDL tasks, such as development of SSOs, development of the antidegradation analysis, development of a preplanning report on conceptual measures to meet different hypothetical final wasteload allocations, and preparation and consideration of a Basin Plan Amendment to revise the chloride objective by the Regional Board, can be accomplished in a shorter timeframe than originally contemplated because the range of chloride values identified by the LRE as necessary to protect AGR and GWR is significantly smaller than the potential range of chloride objectives contemplated during development of the TMDL schedule. This action does not require the Districts to complete the planning and design tasks before the Regional Board considers revision of the chloride WQO, preserves the current eight year schedule for planning, design and construction that is currently contained in the TMDL, and also preserves the requirements for the Board to reconsider the schedule twice during the planning, design and construction phase. The Board finds the proposed action complies with State Board Resolution 2003-0014.

22. The Staff Report, as well as a Notice of Exemption, and tentative Basin Plan Amendment were released for public comment on May 5, 2006. The revised Implementation Plan is proposed in Attachment A to this resolution.

23. The amendment is consistent with the State Antidegradation Policy (State Board Resolution No. 68-16), in that the revisions of the Implementation Plan for the Upper Santa Clara River Chloride TMDL do not include revisions to WQOs, and are intended to shorten the time until compliance with standards. Likewise, the amendment is consistent with the federal Antidegradation Policy (40 CFR 131.12).

24. The proposed amendment results in no potential for adverse environmental effects (de minimis finding), either individually or cumulatively, on wildlife

because shortening the time to implementation will not result in different processes from those already contemplated, but will merely advance those processes.

25. The regulatory action meets the "Necessity" standard of the Administrative Procedures Act, Government Code, section 11353, subdivision (b).

26. The Basin Plan amendment incorporating a revision for the Implementation Plan in the Santa Clara River Chloride TMDL must be submitted for review and approval by the State Water Resources Control Board (State Board), the State Office of Administrative Law (OAL), and the U.S. Environmental Protection Agency (U.S. EPA). The Basin Plan amendment will become effective upon approval by OAL and U.S. EPA. A Notice of Decision will be filed following these approvals.

Therefore, be it resolved that:

1. Pursuant to Section 13240 and 13242 of the Water Code, the Regional Board hereby amends the Basin Plan by replacing the Implementation Plan contained in Resolution 04-004 with the revised Implementation Plan in Attachment A of this Resolution.

2. Pursuant to sections 13240 and 13242 of the California Water Code, the Regional Board, after considering the entire record, including oral testimony at the hearing, hereby adopts the amendment to Chapter 7 the Water Quality Control Plan for the Los Angeles Region to incorporate the revisions of the Implementation Plan in the Upper Santa Clara River Chloride TMDL, Table 7-6.2, Implementation Section as set forth in Attachment A hereto.

3. The Executive Officer is directed to forward copies of the Basin Plan amendment to the SWRCB in accordance with the requirements of section 13245 of the California Water Code.

4. The Regional Board requests that the SWRCB approve the Basin Plan amendment in accordance with the requirements of sections 13245 and 13246 of the California Water Code and forward it to the Office of Administrative Law (OAL) and the United State Environmental Protection Agency (U.S. EPA).

5. If during its approval process Regional Board staff, State Board or OAL determines that minor, non-substantive corrections to the language of the amendment are needed for clarity, or for consistency, the Executive Officer may make such changes, and shall inform the Board of any such changes.

6. The Executive Officer is authorized to sign a Certificate of Fee Exemption.

7. The text in the Basin Plan, Plans and Policies (Chapter 5), is hereby amended to add:

   "Resolution No. 06-0XX. Adopted by the Regional Water Quality Control Board on August 3, 2006.
   'Amendment to revise the Implementation Plan in the TMDL for Chloride in the Upper Santa Clara River, Resolution 04-004'.
   The resolution proposes revisions to the Implementation Plan for the Upper Santa Clara River Chloride TMDL."

I, Jonathan Bishop, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a resolution adopted by the California Regional Water Quality Control Board, Los Angeles Region, on August 3, 2006.

Jonathan Bishop
Executive Officer