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

TENTATIVE RESOLUTION NO. 04- 0XX
May 6, 2004

Revision of interim waste load allocations and implementation plan for chloride in the Amendment to the Water Quality Control Plan for the Los Angeles Region to include a TMDL for Chloride in the Upper Santa Clara River, Resolution 03-008

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 which are sufficient to protect beneficial uses designated for each water body found within its region.

2. The Regional Board carries out its CWA responsibilities through California's Porter-Cologne Water Quality Control Act and establishes water quality objectives designed to protect beneficial uses contained in the Water Quality Control Plan for the Los Angeles Region (Basin Plan).

3. At a public meeting on October 24, 2002, the Regional Board considered amending the Basin Plan to include a Total Maximum Daily Load (TMDL) for chloride in the Upper Santa Clara River. The proposed TMDL included interim waste load allocations for chloride for the Valencia and Saugus Water Reclamation Plants (WRPs) which are owned and operated by the County Sanitation Districts of Los Angeles County (CSDLAC). These interim waste load allocations provide the discharger the necessary time to implement chloride source reduction, complete site specific objective studies, and make appropriate modifications to the WRP, as necessary, to meet the water quality objective for chloride. The interim waste load allocations proposed in the TMDL were based on a statistical evaluation of the WRP's performance in the three years preceding October 2002.

4. 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 Upper Santa Clara River, was adopted by Regional Board on October 24, 2002. Resolution 02-018 assigned waste load allocations (WLAs) to major POTWs, minor point sources, and MS4s permittees discharging to specific reaches of the Santa Clara River.

5. At a public workshop on February 4, 2003, the State Board considered the TMDL for chloride in the Upper Santa Clara River, 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 and directed the Regional Board to

reconsider several matters associated with the TMDL implementation plan, including the duration of the interim waste load allocations. The State Board resolution did not recommend that the Regional Board consider revision of the interim waste load allocations.

6. In response to the Remand Resolution, Regional Board staff revised the TMDL Implementation Plan to address issues identified in the Remand Resolution. At a public hearing on July 10, 2003, the Regional Board considered the revised TMDL for chloride in the Upper Santa Clara River. The Regional Board considered the entire record, including written and oral comments received from the public, the Regional Board staff's response to the written comments, and the Remand Resolution. At the public hearing, the Regional Board directed staff to reconsider interim waste load allocations and evaluate how any changes would affect avocados and groundwater.

7. On July 10, 2003, the Regional Board adopted Resolution 03-008 to revise the Basin Plan to include a TMDL in the Upper Santa Clara River. 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.

8. 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. Time Schedule Orders adopted contemporaneously with the NPDES permits also included interim discharge limits for chloride ("NPDES Interim Limits") 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 of 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.

9. Staff finds that the effects of the NPDES Interim Limits relative to TMDL interim waste load allocations on groundwater and avocados are minor. Potential fiscal impacts could be addressed through the mechanisms of the TMDL. The purpose of this Basin Plan Amendment is to modify the interim waste load allocations in the Chloride TMDL to conform to those in the Saugus and Valencia Time Schedule Orders adopted by the Regional Board on November 6, 2003.

10. The item summary, as well as CEQA checklist and tentative Basin Plan Amendment were released for public comment on December 30, 2003. The revised interim waste load allocations are proposed in attachment A to this resolution.

11. The amendment is consistent with the State Antidegradation Policy (State Board Resolution No. 89-16), in that the changes to water quality objectives (i) consider maximum benefits to the people of the state, (ii) will not unreasonably affect present and anticipated beneficial use of waters, and (iii) will not result in water quality less than that prescribed in policies. Likewise, the amendment is consistent with the federal Antidegradation Policy (40 CFR 131.12).

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

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

14. The Basin Plan amendment incorporating a revision for interim waste load allocations for chloride 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.

15. The TMDL Implementation Plan includes a task to develop site specific objectives for chloride to protect beneficial uses. The studies supporting the proposed site specific objectives are to be completed within three years after the effective date of the TMDL. The three-year timeline is reasonable in light of existing information; however, depending on the data requirements that are recommended by technical experts pursuant to Implementation Task 4, the completion dates for the development of appropriate thresholds for chloride and associated implementation tasks may need to be revised in order to provide sufficient time to complete the necessary scientific studies. The Implementation Plan has been modified to recognize that the Regional Board will re-evaluate the implementation schedule 12 months after the effective date of the TMDL, and take action to amend the schedule if there is sufficient technical justification.

16. The Regional Board recognizes that certain completion dates provided in the TMDL Implementation Plan are estimates and that there are uncertainties associated with implementation of some of the tasks, particularly for those related to the development and implementation of appropriate control measures for meeting the water quality objective. For example, should additional treatment facilities be required, the time needed for actions including, but not limited to, gaining regulatory approval for measures selected for implementation, completion of CEQA requirements, and acquisition of land and easements, are subject to uncertainties and factors outside the control of responsible parties. In recognition of these uncertainties, the implementation plan has been modified to recognize that the Regional Board will re-evaluate the schedule 9 years after the effective date of the TMDL.

THEREFORE, be it resolved that pursuant to Section 13240 and 13242 of the Water Code, the Regional Board hereby amends the Basin Plan as follows:

1. The revised implementation plan in attachment A of this Resolution supersedes the implementation plan contained in Resolution 03-008.

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 interim waste load

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allocations and implementation plan in the Santa Clara River Chloride TMDL, Table 7-8.1, 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 Office of Administrative Law (OAL) and the United State Environmental Protection Agency (U.S. EPA).

5. If during its approval process the SWRCB or OAL determines that minor, non-substantive corrections to the language of the amendment are needed for clarity or consistently, 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. Amend the text in the Basin Plan, Plans and Policies (Chapter 5) to add:

   "Resolution No. 04-X. Adopted by the Regional Water Quality Control Board on May 6, 2004.
   'Amendment to revise the interim waste load allocations and implementation plan in the TMDL for Chloride in the Upper Santa Clara River, Resolution 03-008'.
   The resolution proposes revisions for the interim waste load allocations for chloride and a revised implementation plan for the Upper Santa Clara River."

I, Dennis Dickerson, 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 May 6, 2004.

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Dennis A. Dickerson
Executive Officer

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Attachment A to Resolution No. R04-00XX

Revision of interim waste load allocations and implementation plan for chloride in the Amendment to the Water Quality Control Plan for the Los Angeles Region to include a TMDL for Chloride in the Santa Clara River, Resolution 03-008

Proposed for adoption by the California Regional Water Quality Control Board, Los Angeles Region on May x, 2004.

Amendments

Table of Contents

Add:

Chapter 7. Total Maximum Daily Loads (TMDLs)
7-6 Upper Santa Clara River Chloride TMDL

List of Figures, Tables, and Inserts
Add:Chapter 7. Total Maximum Daily Loads (TMDLs) Tables
7-6.1. Upper Santa Clara River Chloride TMDL: Elements
7-6.2. Upper Santa Clara River Chloride TMDL: Implementation Schedule

Chapter 7. Total Maximum Daily Loads (TMDLs) Upper Santa Clara River TMDL

This TMDL was adopted by: The Regional Water Quality Control Board on October 24, 2002.
This TMDL was remanded by: The State Water Resources Control Board on February 19, 2003
This TMDL was adopted by: The Regional Water Quality Control Board on July 10, 2003
This TMDL was revised and adopted by: The Regional Water Quality Control Board on [Insert date]
This TMDL was approved by: The State Water Resource Control Board on [Insert Date]
The Office of Administrative Law on [Insert Date].
The U.S. Environmental Protection Agency on [Insert Date].

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Element	Table 7-6.1 Upper Santa Clara River Chloride TMDL: Elements Santa Clara River Chloride
Problem Statement	Elevated chloride concentrations are causing impairments of the water quality objective in Reach 5 (EPA 303(d) list Reach 7) and Reach 6 (EPA 303(d) list Reach 8) of the Santa Clara River. This objective was set to protect all beneficial uses; agricultural beneficial uses have been determined to be most sensitive, and not currently attained at the downstream end of Reach 5 (EPA 303(d) list Reach 7) and Reach 6 (EPA 303(d) list Reach 8) in the Upper Santa Clara River. Irrigation of salt sensitive crops such as avocados and strawberries with water containing elevated levels of chloride results in reduced crop yields. Chloride levels in groundwater are also rising.
Numeric Target *(Interpretation of the numeric water quality objective, used to calculate the load allocations)*	This TMDL has a numeric target of 100 mg/L, measured instantaneously and expressed as a chloride concentration, required to attain the water quality objective and protect agricultural supply beneficial use. These objectives are set forth in Chapter 3 of the Basin Plan. The numeric target for this TMDL pertains to Reaches 5 and 6 of the Santa Clara River and is based on achieving the existing water quality objective of 100 mg/L, measured instantaneously, throughout the impaired reaches. A subsequent Basin Plan amendment will be considered by the Regional Board to adjust the chloride objective based on technical studies about the chloride levels, including levels that are protective of salt sensitive crops, chloride source identification, and the magnitude of assimilative capacity in the upper reaches of the Santa Clara River, provided that County Sanitation Districts of Los Angeles County choose to submit timely and complete studies in accordance with tasks 2 through 6 of Table 7.6.2.
Source Analysis	The principal source of chloride into Reaches 5 and 6 of the Santa Clara River is discharges from the Saugus Water Reclamation Plant (WRP) and Valencia WRP, which are estimated to contribute 70% of the chloride load in Reaches 5 and 6.
Linkage Analysis	Linkage between chloride sources and the in-stream water quality was established through a statistical analysis of the WRP effluent and water quality data at Blue Cut and Highway 99. The analysis shows that additional assimilative capacity is usually added to Reaches 5 and 6 from groundwater discharge, but the magnitude of the assimilative capacity is not well quantified. Consequently, the Implementation Plan includes a hydrological study (Surface Water/Groundwater Interaction) of the upper reaches of the Santa Clara River.

Element	Table 7-6.1 Upper Santa Clara River Chloride TMDL: Elements Santa Clara River Chloride
Waste Load Allocations (for point sources)	The numeric target is based on the water quality objective for chloride. The proposed waste load allocations (WLAs) are 100 mg/L for Valencia WRP and 100 mg/L for Saugus WRP. The waste load allocations are expressed as a concentration limit derived from the existing WQO, thereby accommodating future growth. Other NPDES discharges contribute a minor chloride load. The waste load allocation for these point sources is 100 mg/L
Load Allocation (for non point sources)	The source analysis indicates nonpoint sources are not a major source of chloride. The load allocations for these nonpoint sources is 100 mg/L.
Implementation	Refer to Table 7-6.2. The implementation plan proposes that during the period of TMDL implementation, compliance for the WRPs' effluents will be evaluated in accordance with interim waste load allocations . Saugus WRP: The interim waste load allocations for chloride are based on the sum of State Water Project treated water supply concentration plus 114 mg/L, not to exceed 230 mg/L, or the following formula, both as a twelve month rolling average: Interim Waste Load Allocation = Treated Potable Water Supply + 114 mg/L, not to exceed 230 mg/L. 114 mg/L, is the maximum difference in chloride concentration between the State Water Project treated water and the Saugus WRP treated effluent over the last five years. Valencia WRP: The interim waste load allocation for chloride are based on the sum of State Water Project treated water supply concentration plus 134 mg/L, not to exceed 230 mg/L, or the following formula, both as a twelve month rolling average: Interim Waste Load Allocation = Treated Potable Water Supply + 134 mg/L, not to exceed 230 mg/L. 134 mg/L, is the maximum difference in chloride concentration between the State Water Project treated water and the Valencia WRP treated effluent over the last five years.
Margin of Safety	An implicit margin of safety is incorporated through conservative model assumptions and statistical analysis.
Seasonal Variations and Critical Conditions	Three critical conditions are identified for this TMDL. The driest six months of the year is the first critical condition for chloride because less surface flow is available to dilute effluent discharge, pumping rates for agricultural purposes are higher, groundwater discharge is less, poorer quality groundwater may be drawn into the aquifer and evapotranspiration effects are greater in warm

	weather. During drought, the second critical condition, reduced surface flow and increased groundwater extraction continues through several seasons with greater impact on groundwater resource and discharge. The third critical conditions is based on the recent instream chloride concentration increases such as those that occurred in 1999, a year of average flow, when 9 of 12 monthly averages exceeded the objective. Data from all three critical conditions were used in the statistical model described. Hydrological modeling will be completed to evaluate whether additional loading will impact the WQO or beneficial uses during non-critical conditions.

Table 7-6.2. Upper Santa Clara River Chloride TMDL: Implementation Implementation Tasks	Completion Date
1. Alternate Water Supply a) Should (1) the monthly average in-river concentration at Blue Cut, the reach boundary, exceed the water quality objective of 100 mg/L, measured for the purposes of this TMDL as a rolling twelve month average, for three months of any 12 months, (2) each agricultural diverter provide records of the diversion dates and amounts to the Regional Board and County Sanitation Districts of Los Angeles County (CSDLAC) for at least 2 years after the effective date of the TMDL and (3) each agricultural diverter provide photographic evidence that diverted water is applied to avocado, strawberry or other chloride sensitive crop and evidence of a water right to divert, then CSDLAC will be responsible for providing an alternative water supply, negotiating the delivery of alternative water by a third party, or providing fiscal remediation to be quantified in negotiations between CSDLAC and the agricultural diverter at the direction of the Regional Water Quality Control Board until such time as the in-river chloride concentrations do not exceed the water quality objective. b) Should the instream concentration exceed 230 mg/L more than two times in a three year period, the discharger identified by the Regional Board Executive Officer shall be required to submit a work plan for an accelerated schedule to reduce chloride discharges within ninety days of a request by the Regional Board Executive Officer. 2. Progress reports will be submitted by CSDLAC to Regional Board staff on a semiannual basis from the effective date of the TMDL for tasks 4, 6, and 7, and on an annual basis for Task 5.	Effective Date of TMDL
3. Chloride Source Identification/Reduction, Pollution Prevention and Public Outreach Plan: Six months after the effective date of the TMDL, CSDLAC will submit a plan to the Regional Board that addresses measures taken and planned to be taken to quantify and control sources of chloride, including, but not limited to: execute community-wide outreach programs, which were developed based on the pilot outreach efforts conducted by CSDLAC, assess potential incentive/disincentive programs for residential self-regenerating water softeners, and other measures that may be effective in controlling chloride. CSDLAC shall develop and implement the source reduction/pollution prevention and public outreach program, and report results annually thereafter to the Regional Board. Chloride sources from imported water supplies will be assessed. The assessment will include conditions of drought and low rainfall, and will analyze the alternatives for reducing this source.	6 months after Effective Date of TMDL
4. CSDLAC will convene a technical advisory committee or committees (TAC(s)) in cooperation with the Regional Board to review literature,	12 months after Effective Date

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develop a methodology for assessment, and provide recommendations with detailed timelines and task descriptions to support any needed changes to the time schedule for evaluation of appropriate chloride threshold for Task 6. The Regional Board, at a public hearing will re-evaluate the schedule for Task 6 and subsequent linked tasks based on input from the TAC(s), along with Regional Board staff analysis and assessment consistent with state and federal law, as to the types of studies needed and the time needed to conduct the necessary scientific studies to determine the appropriate chloride threshold for the protection of salt sensitive agricultural uses, and will take action to amend the schedule if there is sufficient technical justification.	of TMDL
5. Groundwater/Surface Water Interaction Model: CSDLAC will solicit proposals, collect data, develop a model in cooperation with the Regional Board, obtain peer review, and report results. The impact of source waters and reclaimed water plans on achieving the water quality objective and protecting beneficial uses, including impacts on underlying groundwater quality, will also be assessed and specific recommendations for management developed for Regional Board consideration. The purpose of the modeling and sampling effort is to determine the interaction between surface water and groundwater as it may affect the loading of chloride from groundwater and its linkage to surface water quality.	2 years after Effective Date of TMDL
6. Evaluation of Appropriate Chloride Threshold for the Protection of Sensitive Agricultural Supply Use and Endangered Species Protection:CSDLAC will prepare and submit a report on endangered species protection thresholds. CSDLAC will also prepare and submit a report presenting the results of the evaluation of chloride thresholds for salt sensitive agricultural uses, which shall consider the impact of drought and low rainfall conditions and the associated increase in imported water concentrations on downstream crops utilizing the results of Task 5.	3 years after Effective Date of TMDL
7. Develop Site Specific Objectives (SSO) for Chloride for Sensitive Agriculture: CSDLAC will solicit proposals and develop technical analyses upon which the Regional Board may base a Basin Plan amendment. 8. Develop Anti-Degradation Analysis for Revision of Chloride Objective by SSO: CSDLAC will solicit proposals and develop draft anti-degradation analysis for Regional Board consideration. 9. Develop a pre-planning report on conceptual compliance measures to meet different hypothetical final wasteload allocations. CSDLAC shall solicit proposals and develop and submit a report to the Regional Board that identifies potential chloride control measures and costs based on different hypothetical scenarios for chloride water quality objectives and final wasteload allocations.	4 years after Effective Date of TMDL
10. a) Preparation and Consideration of a Basin Plan Amendment (BPA) to revise the chloride objective by the Regional Board. b) Evaluation of Alternative Water Supplies for Agricultural Beneficial Uses: CSDLAC will quantify water needs, identify alternative water supplies, evaluate necessary facilities, and report results, including the long-term application of this remedy.	5 years after Effective Date of TMDL

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c) Analysis of Feasible Compliance Measures to Meet Final Wasteload Allocations for Proposed Chloride Objective. CSDLAC will assess and report on feasible implementation actions to meet the chloride objective established pursuant to Task 10 a). d) Reconsideration of and action taken on the Chloride TMDL and Final Wasteload Allocations for the Upper Santa Clara River by the Regional Board.	
11. The Regional Board staff will re-evaluate the schedule to implement control measures needed to meet Final Wasteload Allocations adopted pursuant to Task 10 d) and the schedule for Task 12. The Regional Board, at a public meeting will consider extending the completion date of Task 12 and reconsider the schedule to implement control measures to meet Final Wasteload Allocations adopted pursuant to Task 10 d). CSDLAC will provide the justification for the need for an extension to the Regional Board Executive Officer at least 6 months in advance of the deadline for this task.	9 years after Effective Date of TMDL
12. The interim effluent limits for chloride shall remain in effect for no more than 13 years after the effective date of the TMDL. Water Quality Objective for chloride in the Upper Santa Clara River shall be achieved. The Regional Board may consider extending the completion date of this task as necessary to account for events beyond the control of the CSDLAC.	13 years after Effective Date of TMDL

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