## 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.
- 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 13year 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:

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

### Attachment A to Resolution No. 04-004-R4-2006-016

# Revision of the Implementation Plan for the TMDL for Chloride in the Upper Santa Clara River, Resolution 04-0043-008

Proposed for adoption by the California Regional Water Quality Control Board, Los Angeles Region on May August 3, 2006, 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 (Revised)

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 May 6, 2004.

This TMDL was approved by: The State Water Resource Control Board on July 22, 2004

The Office of Administrative Law on November 15, 2004

The U.S. Environmental Protection Agency on April 28, 2005

This TMDL was revised and adopted by: The Regional Water Quality Control Board on August 3, 2006.

	Table 7-6.1. Upper Santa Clara River Chloride TMDL: Elements
Element	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	This TMDL has a numeric target of 100mg/L, measured instantaneously
(Interpretation of	and expressed as a chloride concentration, required to attain the water
the numeric water	quality objective and protect agricultural supply beneficial use. These
quality objective,	objectives are set forth in Chapter 3 of the Basin Plan.
used to calculate	objective and service and obtained of the Dubin Frame
the load	The numeric target for this TMDL pertains to Reaches 5 and 6 of the
allocations)	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
e e e e e e e e e e e e e e e e e e e	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
٠.	hydrological study (Surface Water/Groundwater Interaction? Of the upper
	reaches of the Santa Clara River.
Waste Load	The numeric target is basewd on the water quality objective for chloride.
Allocations (for	The proposed waste load allocations (WLAs) are 100 mg/L for Valencia

Vinashinia (1888)	Table 7-6.1. Upper Santa Clara River Chloride TMDL: Elements
Element	Santa Clara River Chloride
point sources)	WRP and 100 mg/L 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
Load Allocation (for non point sources)	sources is 100 mg/L.  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 allocation for chloride is the sum of State Water Project treated water supply concentration plus 114 mg/L, as a twelve month rolling average.
	At no time shall the interim wasteload allocation exceed 230mg/L.  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 is the sum of State Water Project treated water supply concentration plus 134 mg/L, as a twelve month rolling average. At no time shall the interim wasteload allocation exceed 230 mg/L.
	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

Element	Table 7-6.1. Upper Santa Clara River Chloride TMDL: Elements  Santa Clara River Chloride
	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 — Alternative 4	Completion Date
1.	Alternate Water Supply	Effective Date of
a)	Should (1) the monthly average in-river concentration at Blue Cut,	TMDL
	the reach boundary, exceed the water quality objective of 100mg/L,	(05/04/2005)
	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 as time as the in-	
	river chloride concentrations do not exceed the water quality	
1	objective.	Anna de la companya del companya de la companya del companya de la
b)	Should the instream concentration exceed 230 mg/L more than two	
1	times in thea three year period, the discharger identified by the	
	Regional Board Executive Officer shall be required to submit, within	A STATE OF THE STATE OF T
	ninety days of a request by the Regional Board Executive Officer, a	The first state of the second state of the sec
	workplan for an accelerated schedule to reduce chloride discharges.	
2.	Progress reports will be submitted by CSDLAC to Regional Board	
	staff on a semiannual basis from the effective date of the TMDL for	
1	tasks 4,6, and 7, and on an annual basis for Task 5.	
3.	Chloride Source Identification/Reduction, Pollution Prevention and	6 months after
	Public Outreach Plan: Six months after the effective date of the	Effective Date of
	TMDL, CSDLAC will submit a plan to the Regional Board that	TMDL
1	addresses measures taken and planned to be taken to quantify and	(11/04/2005)
	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	The state of the s
1	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.	
	will aliaryze the alternatives for feducing this source.	<u> </u>

	Table 7-6.2. Upper Santa Clara River Chloride TMDL Implementation Implementation Tasks – Alternative 4	Completion Date
4.	CSDLAC will convene a technical advisory committee or committees (TAC(s)) in cooperation with the Regional Board to review literature 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.	12 months after Effective Date (05/04/2006)
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.	2.5 years after Effective Date of TMDL (11/20/2007)
6.		2.5-3 years after Effective Date of TMDL (11/20/2007)
8.	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.  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.	2.84 years after Effective Date of TMDL (02/20/2008)

	Table 7-6.2. Upper Santa Clara River Chloride TMDL Implementation Implementation Tasks — Alternative 4	Completion Date
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.	
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.  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 10a).	35 years after Effective Date of TMDL (05/04/2008)
	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	a) Implementation of Compliance Measures, Planning: CSDLAC to submit a report of planning activities which include but are not limited to: (1) identifying lead state/federal agencies; (2) administering a competitive bid process for the selection of EIR/EIS and Engineering Consultants; (3) Development of Preliminary Planning and Feasibility Analyses; (4) Submittal of Project Notice of Preparation/Notice of Intent; (5) Preparation of Draft Facilities Plan and EIR; (6) Administration of Public Review and Comment Periods; (7) Development of Final Facilities Plan and EIR and incorporation and response to comments; (8) Administration of final public review and certification process; and (9) Filing a Notice of Determination and Record of Decision.	5 years after Effective Date of TMDL (05/04/2010)
	b) Implementation of Compliance Measures, Planning: CSDLAC to provide a schedule of related tasks and subtasks related to Task 11a), and provide semi-annual progress reports on progress of planning activities, thereafter, until completion of Final Facilities Plan and EIR.	5 years after Effective Date of TMDL (05/04/2010)

Table 7-6.2. Upper Santa Clara River Chloride TMDL Implementation Implementation Tasks — Alternative 4	Completion Date
11.12. 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 132. The Regional Board, at a public meeting will consider extending the completion date of Task 132 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.	69 years after Effective Date of TMDL (05/04/2011)
12.13. a) Implementation of Compliance Measures, Complete Environmental Impact Report: CSDLAC shall have complete a Facilities Plan and Environmental Impact Report for advanced treatment facilities to comply with final effluent permit limits for chloride.	6 years after Effective Date of TMDL (05/04/2011)
b) Implementation of Compliance Measures, Engineering Design: CSDLAC will begin the engineering design of the recommended project.  c) Implementation of Compliance Measures, Engineering Design: CSDLAC will provide a design schedule of related tasks and subtasks, and provide semi-annual progress reports on progress of design activities, thereafter, until completion of Final Design. In addition CSDLAC will provide a construction schedule of related tasks and sub-tasks, and provide semi-annual progress reports on progress of construction activities, thereafter, until completion of recommended project.	6 years after Effective Date of TMDL (05/04/2011) 7 years after Effective Date of TMDL (05/04/2012)
d) Implementation of Compliance Measures, Construction:  CSDLAC shall have applied and received all appropriate permits and have completed construction of the recommended project.	11 years after Effective Date of TMDL (05/04/2016)
12.14. The interim effluent limits for chloride shall remain in effect for no more than 113 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.	13-11 years after Effective Date of TMDL (05/04/2016)