

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

RESOLUTION NO. R4-2007-XXX
August 9, 2007

**Amendment to the *Water Quality Control Plan for the Los Angeles Region* to
Incorporate a Total Maximum Daily Load for Boron, Chloride, Sulfate, and TDS
(Salts) for Calleguas Creek Watershed**

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, Los Angeles Region (Regional Board) to establish water quality standards for each water body within its region. Water quality standards include beneficial uses, water quality objectives that are established at levels sufficient to protect those beneficial uses, and an antidegradation policy to prevent degrading waters. Water bodies that do not meet water quality standards are considered impaired.
2. CWA section 303(d)(1) requires each state to identify the waters within its boundaries that do not meet water quality standards. Those waters are placed on the state's "303(d) List" or "Impaired Waters List". For each listed water, the state is required to establish the Total Maximum Daily Load (TMDL) of each pollutant impairing the water quality standards in that waterbody. Both the identification of impaired waters and TMDLs established for those water must be submitted to U.S. EPA for approval pursuant to CWA section 303(d)(2). For all waters that are not identified as impaired, the states are nevertheless required to create TMDLs pursuant to CWA section 303(d)(3).
3. A consent decree between (U.S. EPA), Heal the Bay, Inc. and BayKeeper, Inc. was approved on March 22, 1999, which resolved litigation between those parties relating the pace of TMDL development. The court order directs the U.S. EPA to ensure that TMDLs for all 1998-listed impaired waters be established within 13 years of the consent decree. The consent decree combined water body pollutant combinations in the Los Angeles Region into 92 TMDL analytical units. In accordance with the consent decree, the Calleguas Creek Salts TMDL addresses waterbodies with salts listings in analytical units 3 and 4. Based on the consent decree schedule, a TMDL for chloride was adopted by USEPA in March 2002 to address analytical unit 3. According to the consent decree, the remaining salts in analytical unit 4 (TDS, sulfate, and boron) TMDLs must be approved or established by United States Environmental Protection Agency (USEPA) by March 2012. This TMDL will supersede the chloride TMDL for analytical unit 3 previously established by EPA.
4. The elements of a TMDL are described in 40 CFR 130.2 and 130.7 and section 303(d)(1)(C) and (D) of the CWA, as well as in U.S. EPA 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). TMDLs must be set at levels necessary to attain and maintain the applicable narrative and numeric water quality standards with seasonal

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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)). 40 CFR 130.7 also dictates that TMDLs shall take into account critical conditions for stream flow, loading and water quality parameters. TMDLs typically include one or more numeric “targets”, i.e., numerical translations of the existing water quality standards, which represent attainment of those standards, contemplating the TMDL elements described above. Since a TMDL must represent the “total” load, TMDLs must account for all sources of the relevant pollutants, irrespective of whether the pollutant is discharged to impaired or unimpaired upstream reaches.

5. Neither TMDLs nor their targets or other components are water quality objectives, and thus their establishment does not implicate Water Code section 13241. Rather, under California Law, TMDLs are programs to implement existing standards (including objectives), and are thus established pursuant to Water Code section 13242. Moreover, they do not create new bases for direct enforcement against dischargers apart from the existing water quality standards they translate. The targets merely establish the bases through which load allocations (LAs) and waste load allocations (WLAs) are calculated. WLAs are only enforced for a discharger’s own discharges, and then only in the context of the discharger’s National Pollutant Discharge Elimination System (NPDES) permit (or other permit, waiver, or prohibition), which must contain effluent limits consistent with the assumptions and requirements of the WLAs (40 C.F.R. 122.44(d)(vii)(B)). The Regional Board will develop permit requirements through subsequent permit actions that will allow all interested persons, including but not limited to municipal storm water dischargers, to provide comments on how the WLAs should be translated into permit requirements.
6. As envisioned by Water Code section 13242, the TMDL contains a “description of surveillance to be undertaken to determine compliance with objectives.” The Compliance Monitoring and Special Studies elements of the TMDL recognize that monitoring will be necessary to assess the on-going condition of the Calleguas Creek watershed and to assess the on-going effectiveness of efforts by dischargers to reduce salts loading to the Calleguas Creek. Special studies may also be appropriate to provide further information about new data, new or alternative sources, and revised scientific assumptions. The TMDL does not establish the requirements for these monitoring programs or reports, although it does recognize the type of information that will be necessary to secure. The Regional Board’s Executive Officer will issue orders to appropriate entities to develop and to submit monitoring programs and technical reports. The Executive Officer will determine the scope of these programs and reports, taking into account any legal requirements, and issue the orders to the appropriate entities.
7. Upon establishment of TMDLs by the State or U.S. EPA, the State is required to incorporate the TMDLs 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 serve as the State Water Quality Management Plans governing the watersheds under the jurisdiction of the Regional Board. Attachment A to this resolution contains the Basin Planning language for this TMDL.
8. The Calleguas Creek Watershed is located in southeast Ventura County, California, and in a small portion of western Los Angeles County, and drains an area of approximately 343 square miles from the Santa Susana Pass in the east, to Mugu Lagoon in the southwest. Current land use is approximately 26 percent agriculture, 24 percent urban,

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and 50 percent open space. The tributaries and the streams of the Calleguas Creek Watershed are divided into fourteen segments, or reaches. Eleven out of fourteen reaches in the Calleguas Creek Watershed are identified on the 2002 Clean Water Act Section 303(d) list of water-quality limited segments as impaired due to elevated levels of boron, chloride, sulfate, and TDS. The listings were approved by the State Water Resources Control Board on February 4, 2003. Additionally, USEPA added listings in Revolon Slough for TDS, sulfate and boron. The proposed TMDL addresses impairments of water quality caused by these salts, and the Implementation Plan is developed to achieve water quality objectives for salts in the Calleguas Creek Watershed.

9. Over the past forty years, large volumes of salts have been imported into the Calleguas Creek watershed from the State Water Project, the Santa Clara River through the Freeman Diversion, and deep aquifers which are pumped for water supply purposes. The Calleguas Creek watershed also contains naturally occurring or background concentrations of salts because soils are derived from marine sediments. Salts become stranded on the watershed and accumulate over time. The result is a general salt imbalance on the watershed that manifests itself in higher surface water and groundwater concentrations of salts throughout the watershed. High salts concentrations have limited the beneficial uses of surface water and groundwater from unconfined aquifers of the Calleguas Creek Watershed. Therefore, salt export will be required throughout the watershed to effectively reduce the salts loads to surface and groundwater. The overall goal of this TMDL is to achieve a salt balance within each subwatershed, reduce salt load to surface water, and achieve and maintain water quality objective for salts in the watershed.
10. Boron is only listed in the Simi and Pleasant Valley (Revolon) subwatershed including Revolon Slough (reach 4), Arroyo Simi (reach 7), and tributaries to Arroyo Simi (reach 9). Therefore, boron allocations are only included for the Simi Valley WWTP and not for the other POTWs that discharge to other subwatersheds.
11. Numeric targets for the TMDL are based on the specific numeric water quality objectives (WQOs) provided in the Basin Plan. Surface water quality objectives for the Calleguas Creek watershed are applicable upstream of Potrero Road. Site specific objectives have not been determined for Calleguas Creek below Potrero Road. However, the Basin Plan provides beneficial use guidelines to determine criteria for selection of effluent limits to protect sensitive beneficial uses including agricultural supply. The Basin Plan also includes objectives for groundwater basins.
12. The Regional Board's goal in establishing the TMDL for salts in Calleguas Creek Watershed is to protect the agriculture irrigation and groundwater recharge beneficial uses of the Calleguas Creek Watershed and to achieve the numeric and narrative water quality objectives set to protect those uses.
13. Calleguas Creek stakeholders have been actively engaged with USEPA and the Regional Board on a variety of watershed planning initiatives in the Calleguas Creek Watershed. Key stakeholders have formed the Calleguas Creek Watershed Management Plan (CCWMP), an established, stakeholder-led watershed management group that has been continually operating since 1996. The CCWMP has broad participation from federal, State and county agencies, municipalities, POTWs, water purveyors, groundwater

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management agencies, and agricultural and environmental groups. As part of its mission to address issues of long-range comprehensive water resources, land use, economic development, open space preservation, enhancement and management, the CCWMP proposed to USEPA and Regional Board to take the lead on development of the TMDLs.

14. Regional Board staff has worked with the CCWMP and USEPA in the development of a detailed technical document that analyzes and describes the specific necessity and rationale for the development of this TMDL. The technical document entitled "Calleguas Creek Watershed Boron, Chloride, Sulfate, and TDS TMDL" (Technical Report) prepared by Larry Walker Associates is an integral part of this Regional Board action and was reviewed, and accepted by the Regional Board as a supporting technical analysis before acting. The technical document provides the detailed factual basis and analysis supporting the problem statement, numeric targets (interpretation of the narrative and numeric water quality objectives, used to calculate the pollutant allocations), source analysis, linkage analysis, waste load allocations (for point sources), load allocation (for nonpoint sources), margin of safety, and seasonal variations and critical conditions of this TMDL. Final Technical Report was submitted to the Regional Board on May 31, 2007. The Regional Board staff report for this TMDL, "Calleguas Creek Watershed Boron, Chloride, Sulfate, and TDS (Salts) TMDL", is based on the analysis in the Technical Report prepared by Larry Walker Associates.
15. On August 9, 2007, prior to the Board's action on this resolution, public hearings were conducted on the TMDL for boron, chloride, sulfate, and TDS in the Calleguas Creek Watershed. Notice of the hearing for the TMDL boron, chloride, sulfate, and TDS in the Calleguas Creek Watershed was published in accordance with the requirements of Water Code Section 13244. This notice was published in the Ventura County Stars on June 2, 2007.
16. The public has had a reasonable opportunity to participate in the review of the amendment to the Basin Plan. A draft of the TMDL was released for public comment on May 31, 2007; a Notice of Hearing and Notice of Filing were published and circulated 45 days preceding Board action; Regional Board staff responded to oral and written comments received from the public; and the Regional Board held a public hearing on August 9, 2007 to consider adoption of the TMDL.
17. In amending the Basin Plan to establish this TMDL, the Regional Board considered the requirements set forth in Sections 13240 and 13242 of the California Water Code.
18. Because the TMDL implements existing numeric water quality objectives (i.e., numeric water quality objectives in the Basin Plan), the Regional Board (along with the State Water Resources Control Board) have determined that adopting a TMDL does not require the water boards to consider the factors of Water Code section 13241. The consideration of the Water Code section 13241 factors, by section 13241's express terms, only applies "in establishing water quality objectives." Here the Regional Board is not establishing water quality objectives, but as required by section 303(d)(1)(C) of the Clean Water Act is adopting a TMDL that will implement the previously established objectives that have not been achieved. In making this determination, the Regional Board has considered and relied upon a legal memorandum from the Office of Chief Counsel to the State Water Board's basin planning staff detailing why TMDLs cannot be considered water quality objectives. (See Memorandum from the Staff Counsel Michael J. Levy, Office of Chief

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Counsel, to Ken Harris and Paul Lillebo, Division of Water Quality: *The Distinction Between A TMDL's Numeric Targets and Water Quality Standards*, dated June 12, 2002.)

19. While the Regional Board is not required to consider the factors of Water Code section 13241, it, nonetheless, has developed and received significant information pertaining to the Water Code section 13241 factors and has considered that information in developing and adopting this TMDL. The past, present, and probable future beneficial uses of water have been considered in that the Calleguas Creek watershed is designated for a multitude of beneficial uses in the Basin Plan. Various living organisms (including vegetation, fish, invertebrates, and wildlife) are present in, transient through, and will be present in the Calleguas Creek. Dry weather surface water in the Calleguas Creek watershed is primarily composed of groundwater, municipal wastewater, urban non-stormwater discharges, and agricultural runoff. In the upper reaches of the watershed, upstream of any wastewater discharges, groundwater discharge from shallow surface aquifers provide a constant base flow. The environmental characteristics of the Calleguas Creek are spelled out at length in the Basin Plan and in the technical documents supporting this Basin Plan amendment, and have been considered in developing this TMDL. Water quality conditions that reasonably could be achieved through the coordinated control of implementation actions including integrating watershed-scale infrastructure projects to desalt groundwater and wastewater, and administrative programs to reduce salt loadings to the Calleguas Creek watershed. TMDL implementation will be carried out by water agencies, municipalities, POTWs, and non-point dischargers in the Calleguas Creek Watershed to desalt groundwater and wastewater. These projects focus on desalting groundwater underlying Calleguas Creek and discharging salts to the Pacific Ocean through a brine line and ocean outfall outside of southern Ventura County. Water quality in Calleguas Creek will be attained by reducing the amount of salts imported and added to water in the watershed, reducing salts loads from groundwater exfiltration, transporting salts downgradient and exporting salts out of the watershed. Responsible agencies also have several options for implementing structural and nonstructural BMPs to attain a salt balance and attain water quality objectives. Authorizing certain storm water dischargers to rely on BMPs in the first instances reflects the reasonableness of the action in terms of the ability to implement the requirements, as well as an understanding that the water quality conditions can reasonably be attained under different hydrological conditions. However, to the extent that there would be any conflict between the consideration of the factor in Water Code section 13241 subdivision (c), if the consideration were required, and the Clean Water Act, the Clean Water Act would prevail. Economic considerations were considered throughout the development of the TMDL. Some of these economic considerations arise in the context of Public Resources Code section 21159 and are equally applicable here. The implementation program for this TMDL recognizes the economic limitations on achieving immediate compliance. The TMDL also authorizes the use of BMPs, to the extent authorized by law, for various storm water dischargers. Economic considerations were considered and are reflected in an implementation program that is flexible and allows 15 years for POTWs, permitted stormwater and non-permitted stormwater dischargers, and agricultural dischargers to comply with the final allocations. The need for housing within the region has been considered, but this TMDL is unlikely to affect housing needs. Whatever housing impacts could materialize are ameliorated by the flexible nature of this TMDL and the implementation schedule.

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20. The amendment is consistent with the State Antidegradation Policy (State Board Resolution No. 68-16), 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).
21. Pursuant to Public Resources Code section 21080.5, the Resources Agency has approved the Regional Water Boards' basin planning process as a "certified regulatory program" that adequately satisfies the California Environmental Quality Act (CEQA) (Public Resources Code, Section 21000 et seq.) requirements for preparing environmental documents. (14 Cal. Code Regs. § 15251(g); 23 Cal. Code Regs. § 3782.) The Regional Water Board staff has prepared "substitute environmental documents" for this project that contains the required environmental documentation under the State Water Board's CEQA regulations. (23 Cal. Code Regs. § 3777.) The substitute environmental documents include the TMDL staff report entitled "Calleguas Creek Watershed Boron, Chloride, Sulfate, and TDS TMDL", the environmental checklist, the comments and responses to comments, the basin plan amendment language, and this resolution. The project itself is the establishment of a TMDL for boron, chloride, sulfate, and TDS in the Calleguas creek watershed. While the Regional Board has no discretion to not establish a TMDL (the TMDL is required by federal law), the Board does exercise discretion in assigning waste load allocations and load allocations, determining the program of implementation, and setting various milestones in achieving the water quality standards. The CEQA checklist and other portions of the substitute environmental documents contain significant analysis and numerous findings related to impacts and mitigation measures.
22. A CEQA Scoping hearing was conducted on November 15, 2006 at the City of Camarillo - City Council Chambers, 601 Carmen Drive, Camarillo, California. A notice of the CEQA Scoping hearing was sent to interested parties including cities and/or counties with jurisdiction in or bordering the watershed. The notice of CEQA Scoping hearing was also published in the Ventura County Stars on October 10, 2006
23. In preparing the substitute environmental documents, the Regional Board has considered the requirements of Public Resources Code section 21159 and California Code of Regulations, title 14, section 15187, and intends those documents to serve as a tier 1 environmental review. This analysis is not intended to be an exhaustive analysis of every conceivable impact, but an analysis of the reasonably foreseeable consequences of the adoption of this regulation, from a programmatic perspective. Many compliance obligations will be undertaken directly by public agencies that will have their own obligations under CEQA. In addition, public agencies including but not limited to Calleguas MWD, Camrosa WD, CamSan, City of Thousand Oaks, Simi Valley, Moorpark, VCWW, and Camarillo are foreseeably expected to facilitate compliance obligations. The "Lead" agencies for such tier 2 projects, will assure compliance with project-level CEQA analysis of this programmatic project. Project level impacts will need to be considered in any subsequent environmental analysis performed by other public agencies, pursuant to Public Resources Code section 21159.2.
24. The foreseeable methods of compliance of this TMDL entail construction and operation of an infrastructure of extraction wells, surface water diversions, pipelines, reverse

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osmosis facilities, reclaimed water distribution facilities, a brine export pipeline, and an ocean outfall. These facilities require planning and implementation which has been underway for a number of years. Construction activities on several pipeline alignments have been completed and environmental review of the project has been completed for a key area and the ocean outfall. The above projects have already been subject to extensive environmental review. Both Camrosa Water District and Calleguas Municipal Water District have certified program level EIRs for the Renewable Water Resource Management Program for the Southern Reaches of the Calleguas Creek Watershed and the Regional Salinity Management Project that examine the foreseeable environmental impacts from constructing and operating a system to comply with the salts TMDL.

25. Consistent with the Regional Board's substantive obligations under CEQA, the substitute environmental documents do not engage in speculation or conjecture, and only consider the reasonably foreseeable environmental impacts, including those relating to the methods of compliance, reasonably foreseeable feasible mitigation measures to reduce those impacts, and the reasonably foreseeable alternative means of compliance, which would avoid or reduce the identified impacts.
26. The proposed amendment could have a potentially significant adverse effect on the environment. However, there are feasible alternatives, feasible mitigation measures, or both, that if employed, would substantially lessen the potentially significant adverse impacts identified in the substitute environmental documents; however such alternatives or mitigation measures are within the responsibility and jurisdiction of other public agencies, and not the Regional Board. Water Code section 13360 precludes the Regional Board from dictating the manner in which responsible agencies comply with any of the Regional Board's regulations or orders. When the agencies responsible for implementing this TMDL determine how they will proceed, the agencies responsible for those parts of the project can and should incorporate such alternatives and mitigation into any subsequent projects or project approvals. These feasible alternatives and mitigation measures are described in more detail in the substitute environmental documents. (14 Cal. Code Regs. § 15091(a)(2).)
27. From a program-level perspective, incorporation of the alternatives and mitigation measures outlined in the substitute environmental documents may not foreseeably reduce impacts to less than significant levels.
28. The substitute documents for this TMDL, and in particular the Environmental Checklist and staff's responses to comments, identify broad mitigation approaches that should be considered at the project level.
29. To the extent significant adverse environmental effects could occur, the Regional Board has balanced the economic, legal, social, technological, and other benefits of the TMDL against the unavoidable environmental risks and finds that specific economic, legal, social, technological, and other benefits of the TMDL outweigh the unavoidable adverse environmental effects, such that those effects are considered acceptable. The basis for this finding is more fully set forth in the substitute environmental documents. (14 Cal. Code Regs. § 15093.)
30. Health and Safety Code section 57004 requires external scientific peer review for certain water quality control policies. Prior to public notice of the draft TMDL, the Regional Board submitted the scientific basis and scientific portions of the Calleguas Creek

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Watershed Salts TMDL to Professor Ferdi L. Hellweger for external scientific peer review. The peer review report was received by the Regional Board on April 23, 2007. The peer review found that the proposed TMDL included an appropriate conceptual model, and reasonable allocations and implementation plan to attain water quality objectives. Minor modifications were made to the scientific portions of the TMDL to address concerns identified during the peer review process.

31. The regulatory action meets the “Necessity” standard of the Administrative Procedures Act, Government Code, Section 11353, Subdivision (b). As specified above, Federal law and regulations require that TMDLs be incorporated into the water quality management plan. The Regional Board’s Basin Plan is the Regional Board’s component of the water quality management plan, and the Basin Plan is how the Regional Board takes quasi-legislative, planning actions. Moreover, the TMDL is a program of implementation for existing water quality objectives, and is, therefore, appropriately a component of the Basin Plan under Water Code section 13242. The necessity of developing a TMDL is established in the TMDL staff report, the section 303(d) list, and the data contained in the administrative record documenting the salts impairments of the Calleguas Creek Watershed.
32. The Basin Plan amendment incorporating a TMDL for salts for the Calleguas Creek Watershed 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. EPA. The Basin Plan amendment will become effective upon approval by OAL and U.S. EPA. A Notice of Decision will be filed with the Resources Agency.
33. If during the State Board’s approval process Regional Board staff, the SWRCB or State Board staff, or OAL determines that minor, non-substantive modifications to the language of the amendment are needed for clarity or consistency, the Executive Officer should make such changes consistent with the Regional Board’s intent in adopting this TMDL, and should inform the Board of any such changes.

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

1. 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 amendments to Chapter 7 of the Water Quality Control Plan for the Los Angeles Region, as set forth in Attachment A hereto, to incorporate the elements of the Calleguas Creek Watershed Salts TMDL.
2. The Regional Board hereby approves and adopts the CEQA substitute environmental documentation and the referenced Environmental Impact Reports entitled “Program Environmental Impact Report/Environmental Assessment for the Renewable Water Resource Management Program for the Southern Reaches of the Calleguas Creek Watershed,” and “Supplemental Environmental Impact Report/Environmental Assessment for the Regional Salinity Management Project” , including all findings contained therein, which was prepared in accordance with Public Resources Code section 21159 and California Code of Regulations, title 14, section 15187, and directs the Executive Officer to sign the environmental checklist.

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3. The Executive Officer is directed to forward copies of the Basin Plan amendment to the State Board in accordance with the requirements of section 13245 of the California Water Code.
4. The Regional Board requests that the State Board approve the Basin Plan amendment in accordance with the requirements of sections 13245 and 13246 of the California Water Code and forward it to OAL and the U.S. EPA.

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

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

I, Deborah J. Smith, Interim 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 9, 2007.

Deborah J. Smith
Interim Executive Officer

August 9, 2007
Date

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