CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401-7906

RESOLUTION NO. R3-2013-0008

AMENDING THE WATER QUALITY CONTROL PLAN FOR THE CENTRAL COASTAL BASIN TO ADOPT TOTAL MAXIMUM DAILY LOADS FOR NITROGEN COMPOUNDS AND ORTHOPHOSPHATE IN THE LOWER SALINAS RIVER AND RECLAMATION CANAL BASIN AND THE MORO COJO SLOUGH SUBWATERSHED

The Regional Water Quality Control Board, Central Coast Region (Central Coast Water Board) finds:

1. The Central Coast Water Board adopted the second edition of the Water Quality Control Plan for the Central Coastal Basin (Basin Plan), on September 8, 1994. The Basin Plan designates beneficial uses and water quality objectives, sets forth implementation plans to achieve water quality objectives addressing point source and nonpoint source discharges, establishes prohibitions, and incorporates statewide plans and policies.

2. The Central Coast Water Board periodically revises and amends the Basin Plan. The Central Coast Water Board has determined the Basin Plan requires further revision and amendment to incorporate Total Maximum Daily Loads (TMDLs) and an implementation plan for nitrogen compounds (nitrate and unionized ammonia) and orthophosphate in the Lower Salinas River and Reclamation Canal Basin and the Moro Cojo Slough Subwatershed, which include the waterbodies Alisal Creek, Alisal Slough, Blanco Drain, Chualar Creek, Esperanza Creek, Espinosa Slough, Gabilan Creek, Merrit Ditch, Moro Cojo Slough, Natividad Creek, Old Salinas River, Quail Creek, the Reclamation Canal, the Lower Salinas River (downstream of Gonzalez), Santa Rita Creek, and Tembladero Slough.

3. The geographic scope of this TMDL encompasses approximately 405 square miles of the lower Salinas Valley in northern Monterey County and includes the lowermost Salinas River, Moro Cojo Slough, Tembladero Slough, the Reclamation Canal, and associated upstream tributaries; hereafter collectively referred to as the "TMDL Project Area." Agriculture (including irrigated cropland and grazing lands) is the current dominant land use in the TMDL Project Area, with increasing transition to urban use. The City of Salinas and other urbanized areas account for approximately eight percent of the TMDL Project Area's land use. Grassland, chaparral, and oak woodland make up substantial parts of the upland reaches of the watershed.

4. Multiple waterbodies within the TMDL Project Area are listed on California's Clean Water Act Section 303(d) list for water quality impairments due to nitrate, unionized ammonia, nutrients, low dissolved oxygen, and chlorophyll-*a* (an algal biomass indicator). Due to the Clean Water Act 303(d) listings, the Central Coast Water Board is required to adopt a TMDL and an associated implementation plan (40 CFR 130.6(c)(1), 130.7, California Water Code section 13242).

5. Available data indicate 1) widespread violations of the Basin Plan's drinking water standard for nitrate, 2) widespread violations of the Basin Plan's unionized ammonia general toxicity objective for inland surface waters, and 3) widespread violations of the Basin Plan's narrative general objective for biostimulatory substances in inland surface waters and estuaries. In

addition, some surface waterbodies are locally not meeting non-regulatory recommended guidelines for nitrate in agricultural supply water (AGR) for sensitive crop types, indicating that potential or future designated agricultural supply beneficial uses may locally be detrimentally impacted.

6. Available data indicate that discharges of nutrients (specifically, nitrogen compounds and orthophosphate) are occurring at levels in surface waters which are impairing a wide spectrum of beneficial uses, including impairments of municipal and domestic drinking water supply beneficial uses, impairments of aquatic habitat beneficial uses, impairments of groundwater recharge beneficial uses, and degradation locally of designated agricultural water supply beneficial uses (including irrigation supply for sensitive crops and livestock watering).

7. The Central Coast Water Board's goal for establishing TMDLs in the TMDL Project Area is to rectify the impairment due to unionized ammonia, nitrate, and orthophosphate, thereby providing support for the designated beneficial uses of municipal and domestic water supply (MUN), cold and warm fresh water habitat (COLD and WARM), groundwater recharge (GWR), agricultural water supply (AGR), and to support water quality standards attainment with regard to the Basin Plan's general toxicity water quality objective for unionized ammonia, and the Basin Plan's water quality objective for biostimulatory substances.

8. The Central Coast Water Board proposes to amend the Basin Plan by inserting amendments into Chapter Four Section IX (Total Maximum Daily Loads).

9. On May 20, 2004, the State Water Resources Control Board (State Water Board) adopted the *Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program* (NPS Policy). The NPS Policy requires the Regional Water Quality Control Boards to regulate all nonpoint sources of pollution using the administrative permitting authorities provided by the Porter-Cologne Water Quality Control Act (Porter-Cologne Act, Wat. Code Div. 7). Consistent with the NPS Policy and the Porter-Cologne Act, Regional Water Quality Control Boards regulate nonpoint source discharges with waste discharge requirements, waivers of waste discharge requirements, and/or Basin Plan prohibitions.

10. On May 20, 2004, the State Water Board adopted the *Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List* (State Water Board Resolution No. 2004-0063), hereafter referred to as the *California 303(d) Listing Policy.* The *California 303(d) Listing Policy* describes the process by which the State Water Board and the Regional Water Quality Control Boards will comply with the listing requirements of the federal Clean Water Act (CWA). The objective of the *California 303(d) Listing Policy* is to establish a standardized approach for developing California's CWA section 303(d) list and to provide guidance for interpreting data and information to make decisions regarding water quality standards attainment.

11. On June 16, 2005, the State Water Board adopted the *Water Quality Control Policy for Addressing Impaired Waters: Regulatory Structure and Options* (State Water Board Resolution 2005-0050), hereafter referred to as the *Impaired Waters Policy.* The *Impaired Waters Policy* provides policy and procedures for adopting TMDLs and addressing impaired waters in California. The *Impaired Waters Policy* states that the Regional Water Quality Control Boards have independent discretion, broad flexibility, numerous options, and some legal constraints that apply when determining how to address impaired waters.

12. Chualar Creek, Espinosa Slough, Merrit Ditch, Moro Cojo Slough, Natividad Creek, the Reclamation Canal, Quail Creek, and Santa Rita Creek are listed on California's 2008-2010

Clean Water Act 303(d) list as impaired due to unionized ammonia. Consequently, these waterbodies do not meet the Basin Plan toxicity objectives for inland surface waters, enclosed bays, and estuaries. In addition, although not listed on California's 2008-2010 Clean Water Act 303(d) list for unionized ammonia, available data indicate that Alisal Creek and Alisal Slough are impaired due to unionized ammonia on the basis of the listing criteria and methodologies identified in the *California 303(d) Listing Policy.*

13. Alisal Creek, Alisal Slough, Chualar Creek, Esperanza Creek, Gabilan Creek, Merrit Ditch, Natividad Creek, the Old Salinas River, Quail Creek, the Lower Salinas River (below Gonzalez), and Santa Rita Creek [are listed on California's 2008-2010 Clean Water Act 303(d) list as impaired due to nitrate. These water bodies are currently not supporting the following beneficial use designated by the Basin Plan: municipal and domestic drinking water supply (MUN).

14. Blanco Drain, Espinosa Slough, the Reclamation Canal, and Tembladero Slough are listed on California's 2008-2010 Clean Water Act 303(d) list as impaired due to nitrate on the basis of non-attainment of the Basin Plan's biostimulatory substances water quality objective. These water bodies are currently not supporting the following beneficial uses designated by the Basin Plan: aquatic habitat (WARM, COLD, SPWN).

15. The Salinas River Lagoon (North) and Tembladero Slough are listed on California's 2008-2010 Clean Water Act 303(d) list as impaired due to nutrients on the basis of non-attainment of the Basin Plan's biostimulatory substances water quality objective. In addition, although not listed on California's 2008-2010 Clean Water Act 303(d) list for nutrients causing biostimulation, available data indicate the following waterbodies are in violation of the Basin Plan's biostimulatory substances objective: Alisal Creek, Alisal Slough, Blanco Drain, Espinosa Slough, Merrit Ditch, Moro Cojo Slough, Natividad Creek, the Old Salinas River, the Reclamation Canal, the Lower Salinas River (below Gonzalez), and Santa Rita Creek.

16. The lower Salinas River (downstream of Spreckels) and Gabilan Creek (downstream of Crazy Horse Road) do not meet non-regulatory recommended guidelines for nitrate in agricultural supply water for sensitive crop types, indicating that potential or future designated agricultural supply beneficial uses may be detrimentally impacted.

17. Alisal Creek and Gabilan Creek (downstream of Crazy Horse Road) are listed on California's 2008-2010 Clean Water Act 303(d) list as impaired due to nitrate on the basis of non-attainment of the Basin Plan's water quality objective for municipal and domestic drinking water supply (MUN); these waterbodies are also not supporting their designated groundwater recharge (GWR) beneficial use based on the Basin Plan's drinking water objective and specific lines of evidence consistent with the *California 303(d) Listing Policy.*

18. Low dissolved oxygen is a nutrient-response indicator and represents a primary biological response to excessive nutrient loading in waterbodies which exhibit biostimulatory conditions. Alisal Slough, Blanco Drain, Merrit Ditch, Moro Coho Slough, Natividad Creek, the Old Salinas River, Quail Creek, the Reclamation Canal, and Santa Rita are on the 2008-2010 Clean Water Act 303(d) list of impaired waters for low dissolved oxygen impairment and are expressing biostimulatory conditions. In addition, although not listed on California's 2008-2010 Clean Water Act 303(d) list for low dissolved oxygen, available data indicates that Tembladero Slough is impaired due to low dissolved oxygen on the basis of the listing criteria and methodologies identified in the *California 303(d) Listing Policy.* Reductions in nutrient loading described in the Staff Report are anticipated to be beneficial in attainment of water quality standards for DO and restoring the waterbodies to a desired condition. Nutrient concentrations by themselves constitute indirect indicators of biostimulatory conditions and

there is an interrelationship between high nutrient loads, excessive algal growth, and the subsequent impacts of excessive algae on dissolved oxygen and aquatic habitat. Further, numeric targets identified for DO in the TMDL will be used as indicator metrics to assess primary biological response to future nutrient water column concentration reductions and compliance with the Basin Plan's biostimulatory substances objective.

19. Chlorophyll-*a* is a nutrient-response indicator and represents a primary biological response to excessive nutrient loading in waterbodies which exhibit biostimulatory conditions. Alisal Creek, the Old Salinas River, and Tembladero Slough are on the 2008-2010 Clean Water Act 303(d) list of impaired waters for chlorophyll-*a* impairment and are expressing biostimulatory conditions. Reductions in nutrient loading described in the Staff Report are anticipated to be beneficial in attainment of water quality standards for chlorophyll-*a* and restoring the waterbodies to a desired condition. Further, numeric targets identified for chlorophyll-*a* in the TMDL will be used as an indicator metric to assess primary biological response to future nutrient water column concentration reductions and compliance with the Basin Plan's biostimulatory substances objective.

20. Microcystins (algal toxins) are a nutrient-response indicator and represents a primary biological response to excessive nutrient loading in waterbodies which exhibit biostimulatory conditions. Reductions in nutrient loading described in the Staff Report are anticipated to be beneficial in attainment of water quality standards for microcystins and restoring the waterbodies to a desired condition. The numeric target identified for microcystins in this TMDL will be used as an indicator metric to assess primary biological response to future nutrient water column concentration reductions and to ensure compliance with the Basin Plan's biostimulatory substances objective and designated REC-1 beneficial uses. The Old Salinas River is not listed on California's 303(d) list for microcystins, however, available data indicate this waterbody is impaired by microcystins on the basis of public health action levels and listing criteria and methodologies identified in the *California 303(d) Listing Policy*.

21. The U.S. Environmental Protection Agency's (USEPA) published TMDL guidance (*Guidance for Water Quality-Based Decisions: The TMDL Process – Chapter 1, Policies and Principles*, USEPA 404/4-91-001, April 1991) explicitly states that implementation of TMDLs and water quality-based controls should not be delayed because of lack of information and uncertainties about pollution problems, particularly with respect to nonpoint sources. More information about the spatial extent and nature of water quality impairments can be collected during TMDL implementation.

22. The elements of a TMDL are described in 40 CFR 130.2 and 130.7, section 303(d) of the Clean Water Act and USEPA guidance documents. A TMDL is defined as "the sum of individual waste load allocations for point sources and load allocations for nonpoint sources and natural background" (40 CFR 130.2). The Central Coast Water Board has determined that the TMDLs for unionized ammonia, nitrate, and orthophosphate in the Lower Salinas River and Reclamation Canal Basin and the Moro Cojo Slough Subwatershed are set at levels necessary to attain and maintain the applicable numeric water quality objectives, taking into account seasonal variations and any lack of knowledge concerning the relationship between effluent limitations and water quality (40 CFR130.7 (c) (1)). The regulations in 40 CFR 130.7 also state that TMDLs shall take into account critical conditions for stream flow, loading, and water quality parameters. TMDLs are often expressed as a mass load of the pollutant but can be expressed as a unit of concentration if appropriate (40 CFR 130.2(i)). Expressing these TMDLs as units of concentration is appropriate because an existing concentration-based water quality objective is used as the basis for the TMDL numeric target and attaining that concentration-based water quality objective will result in protection of the beneficial uses.

23. 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) and 130.7 and California Water Code sections 13050(j) and 13242). The Basin Plan and applicable statewide plans serve as the State Water Quality Management Plan governing the watersheds under the jurisdiction of the Central Coast Water Board.

24. The TMDLs and Implementation Program are based on sound scientific knowledge, methods, and practices in accordance with Health and Safety Code section 57004. Central Coast Water Board staff submitted the Project Report for the TMDLs to two external scientific reviewers in March 2012. Central Coast Water Board staff received comments from the reviewers. Central Coast Water Board staff either modified the Project Report in accordance with the comments, provided a written response that explained the basis for not incorporating the comments, or made no modifications because the commenter suggested none was needed.

25. Central Coast Water Board staff will conduct a review of implementation activities when monitoring and reporting data are submitted as required by the Agricultural Order and existing or future NPDES storm water permits, or when other monitoring data and/or reporting data are submitted outside the requirements of existing permits and orders. Central Coast Water Board staff will pursue modification of Agricultural Order conditions, NPDES storm water permit conditions, or other regulatory means, as necessary, to address remaining impairments resulting from nitrogen compounds or orthophosphate during the TMDL implementation phase.

26. Central Coast Water Board staff implemented a process to inform interested persons about the TMDLs. Central Coast Water Board staff's efforts to inform the public and solicit comment included public meetings with interested persons and a public notice and written comment period. Public notice of the proposed Basin Plan amendment provided the public a 50-day public comment period preceding the Central Coast Water Board hearing. Notice of public hearing was given by advertising in a newspaper of general circulation within the Region and by emailing a copy of the notice to all persons requesting such notice and applicable government agencies. Relevant documents and notices were also made available on the Central Coast Water Board website. Central Coast Water Board staff responded to oral and written comments received from the public. All public comments were considered.

27. Adoption of these TMDLs and Basin Plan amendments will not result in any degradation of water quality; in fact, they are designed to improve water quality. As such, these TMDLs and basin plan amendments comply with all requirements of both State and federal anti-degradation requirements (State Board Resolution 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California" and 40CFR 131.12).

28. The Central Coast Water Board recognizes that certain limited resource farmers (as defined by the U.S. Dept. of Agriculture) may have difficulty achieving compliance with this TMDL. The Central Coast Water Board will prioritize assistance for these farmers, including but not limited to technical assistance, grant opportunities, and necessary flexibility to achieve compliance (e.g., adjusted monitoring, reporting, or time schedules).

29. 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.). Central Coast Water Board staff has

prepared "substitute environmental documents" for this project that contain the required environmental documentation as set forth in the State Water Board's CEQA regulations (23 Cal. Code Regs. § 3777.). The substitute environmental documents include the TMDL Staff Report and several of its attachments, including 1) this Resolution and the Basin Plan Amendment Language (Attachment 1 of the Staff Report); 2) *Final Project Report for Total Maximum Daily Loads for Nitrogen Compounds and Orthophosphate for the Lower Salinas River and Reclamation Canal Basin, and the Moro Cojo Slough Subwatershed, Monterey County, California* (Attachment 2 of the Staff Report); 3) the CEQA Substitute Document with environmental checklist (Attachment 3 of the Staff Report); and 4) the comments and responses to comments (Attachment 6 of the Staff Report). The Staff Report also includes the Notice of Public Hearing/Notice of Filing (Attachment 4) and the Scientific Peer Review Comment (Attachment 5). The project itself is the establishment of TMDLs for nitrogen compounds and orthophosphate in the Lower Salinas River and Reclamation Canal Basin, and the Moro Cojo Slough Subwatershed. The Central Coast Water Board exercises 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.

30. A CEQA scoping meeting was conducted on October 3, 2011, in the City of Salinas; a notice of the CEQA scoping meeting was sent to interested persons prior to the scoping meeting on September 7, 2011. The notice included a background of the project, the project purpose, a meeting schedule, and directions for obtaining more detailed information through the Central Coast Water Board website; the notice and project summary were available at the website or by requesting hard copies via telephone.

31. Public Resources Code section 21159 provides that an agency shall perform, at the time of the adoption of a rule or regulation requiring the installation of pollution control equipment or a performance standard or treatment requirement, an environmental analysis of the reasonably foreseeable methods of compliance, and an analysis of the reasonably foreseeable environmental impacts of the methods of compliance, an analysis of reasonably foreseeable mitigation measures to lessen the adverse environmental impacts, and an analysis of reasonably foreseeable alternative means of compliance with the rule or regulation that would have less significant adverse impacts. Section 21159(c) requires that the environmental analysis take into account a reasonable range of environmental, economic, and technical factors; population and geographic areas; and specific sites. The Staff Report prepared for this Basin Plan amendment, in particular the CEQA Substitute Document Report (Attachment 3), provides the environmental analysis required by Public Resources Code section 21159 and is hereby incorporated as findings in this Resolution.

32. In preparing the substitute environmental documents, the Central Coast Water 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. Compliance obligations will be undertaken directly by public agencies that may have their own obligations under CEQA. Project level impacts may need to be considered in any subsequent environmental analysis performed by other public agencies, pursuant to Public Resources Code section 21159.2. To the extent applicable, this Tier 1 substitute environmental document may be used to satisfy subsequent CEQA obligations of those agencies.

33. Consistent with the Water 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, that would avoid or reduce the identified impacts.

34. The Staff Report, the draft Basin Plan Amendment, and the Environmental Checklist and associated analysis provide the necessary information pursuant to state law to conclude that the proposed TMDL, Implementation Plan, and the associated reasonably foreseeable methods of compliance will not have a significant adverse effect on the environment with the exception of potentially significant impacts associated with Biological Resources – CEQA Checklist Category IV(a). and potentially significant impacts to habitat of fish or wildlife species associated with Mandatory Findings of Significance – CEQA Checklist Category XVIII.(a). This determination is based on best available information in an effort to fully inform the interested public and the decision makers of potential environmental impacts. "Significant effects" on the environment are defined as *"a substantial, or potentially substantial, adverse change within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance"* (14 Cal. Code Regs. § 1538). Wide scale water conservation measures and changing water management practices potentially could result in lower flows to surface waters resulting in potentially substantial adverse changes to aquatic habitat. Reduction in polluted runoff may offset potentially substantial adverse impacts resulting from potential reduced flows. In addition, reduction in tailwater discharge could result in increased groundwater levels that would result in more baseflow to surface waterbodies. Further, maintaining surface flows and circulation may in fact be part of a viable strategy to reduce biostimulatory impacts, since biostimulatory impacts are only partly attributable to elevated nutrients; biostimulatory impacts may be mitigated by increased flow, aeration, and shading of the waterbody. Potential mitigation measures to prevent reduced flows or to reduce the impact of reduced flows include phasing in management practices that could result in reduced flows; and use of riparian buffers and other vegetated treatment systems that will effectively treat the water to remove pollutants, but not necessarily reduce flows. Given the uncertainty associated with evaluating the available information, it is possible that any potentially substantial adverse changes on aquatic habitat associated with the basin plan amendment will be less than significant. When the entities and responsible parties responsible for implementing these TMDLs 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. Feasible alternatives and mitigation measures are described in more detail in the substitute environmental documents (14 Cal. Code Regs. § 15091(a)(2).). Legal considerations may make some of the mitigation measures that could be implemented infeasible. The Central Coast Water Board may not specify the manner of compliance with its orders and as a result implementation of potential mitigation measures are not under the control or discretion of the Central Coast Water Board.

35. Pursuant to CEQA Guidelines section 15093 (Cal. Code. Regs., tit. 14., § 15093), the Central Coast Water Board hereby finds that the project's benefits override and outweigh its potential significant adverse impacts, for the reasons more fully set forth in the Staff Report and attachments thereto. Specific economic, social, and environmental benefits justify the adoption of this TMDL despite the project's potential significant adverse environmental impacts. The Central Coast Water Board has the authority and responsibility to regulate discharges of waste associated with the sources of pollution causing impairment to water quality. Many of those discharges have caused significant widespread degradation and/or pollution of waters of the state as described in the *Final Project Report for Total Maximum*

Daily Loads for Nitrogen Compounds and Orthophosphate for the Lower Salinas River and Reclamation Canal Basin, and the Moro Cojo Slough Subwatershed, Monterey County, California and associated reference materials. This TMDL would result in actions to restore the quality of the waters of the state and protect the beneficial uses, including aquatic habitat. While some impacts could occur due to reduced flows, earth-moving, or from implementing other actions to comply with the TMDL, the benefits, which include contributing to the present and future restoration of beneficial water uses, and reducing or eliminating pollution, nuisance and contamination, warrant approval of the TMDL, despite each and every unavoidable impact. Upon review of the environmental information generated for this TMDL, including the CEQA Substitute Document with environmental checklist (Attachment 3 of the Staff Report) and in view of the entire record supporting the need for the TMDL, the Central Coast Water Board determines that specific economic, legal, social, technological, environmental, and other benefits of this TMDL outweigh the unavoidable adverse environmental effects, and that such adverse environmental effects are acceptable under the circumstances.

36. From a program-level perspective, incorporation of the alternatives and mitigation measures outlined in the substitute environmental documents will foreseeably reduce impacts to no impact, or keep the impact at less-than-significant levels.

37. The CEQA Substitute Document Report (Staff Report Attachment 3) identifies mitigation approaches that should be considered at the project level.

38. The Central Coast Water Board will request that the State Water Board approve the Basin Plan amendments incorporating TMDLs for nitrogen compounds and orthophosphate in the Lower Salinas River and Reclamation Canal Basin and the Moro Cojo Slough Subwatershed. The TMDLs and Implementation Program for the TMDLs will become effective upon approval by the California Office of Administrative Law. The TMDLs must also be approved by USEPA.

39. The amendments to the Basin Plan may have an effect on fish and wildlife. The Central Coast Water Board will, therefore, forward fee payments to the Department of Fish and Wildlife under the California Fish and Game Code section 711.4.

40. Based on relevant future information, data, and research, the Central Coast Water Board has the discretion to conduct a water quality standards review which may potentially include one or more of the following: (1) The Water Board may designate critical low-flow conditions below which numerical water quality criteria do not apply, as consistent with federal regulations and policy; (2) The Water Board may authorize lowering of water quality to some degree if and where appropriate, if the Water Board finds water quality lowering to be necessary to accommodate important economic or social development. In authorizing water quality lowering the Water Board shall make any such authorizations consistent with the provisions and requirements of federal and state anti-degradation policies; (3) The Water Board may authorize revision of water quality standards, if appropriate and consistent with federal and state regulations, to remove a designated beneficial use, establishing subcategories of uses, establishing site specific water quality objectives, or other modification of the water quality standard. When a standards action is deemed appropriate, the Water Board shall follow all applicable requirements, including but not limited to those set forth in part 131 of Title 40 of the Code of Federal Regulations and Article 3 of Division 7, Chapter 4 of the California Water Code.

41. The proposed amendments meet the "Necessity" standard of the Administrative Procedures Act, Government Code, section 11353, subdivision (b). As specified in Finding 23, federal regulations require that TMDLs be incorporated into the Water Quality Management Plan.

The Central Coast Water Board's Basin Plan is the Central Coast Water Board's component of the Water Quality Management Plan, and the Basin Plan is how the Central Coast Water 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 the California Water Code, section 13242. The necessity of developing TMDLs is established in the TMDL staff report, the Clean Water Act section 303(d) list, and the data contained in the administrative record documenting the nitrogen compounds and orthophosphate impairments of the Lower Salinas River and Reclamation Canal Basin, and the Moro Cojo Slough Subwatershed.

42. Consistent with Water Code section 13141, the amendment includes an estimate of the total cost of implementation of the agricultural related portions of this TMDL and identifies potential sources of financing.

43. On January 31 and March 14, 2013, in San Luis Obispo, California, the Central Coast Water Board held public hearings and heard and considered all public comments and evidence in the record.

THEREFORE, be it resolved that:

1. Pursuant to sections 13240, 13242, 13243, and 13244 of the California Water Code, the Central Coast Water Board, after considering the entire record, including oral testimony at the hearing, hereby adopts the amendment in "Attachment-Proposed Basin Plan Amendments."

2. 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.

3. The Central Coast Water Board requests that the State Water Board approve the Basin Plan amendments in accordance with the requirements of sections 13245 and 13246 of the California Water Code and forward them to the California Office of Administrative Law and the USEPA for approval.

4. The Executive Officer is authorized to sign a Certificate of Fee Exemption or transmit payment of the applicable fee as may be required to the Resources Agency.

5. If, during the approval process, Central Coast Water Board staff, State Water Board staff, the State Water Board, or the California Office of Administrative Law determines that minor, non-substantive corrections to the language of the amendment are needed for clarity or consistency, the Executive Officer may make such changes, and shall inform the Central Coast Water Board of any such changes.

6. The environmental documents prepared by the Central Coast Water Board staff pursuant to Public Resources Code 21080.5 are hereby certified.

I, Kenneth A. Harris Jr., Interim Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of a resolution adopted by the California Regional Water Quality Control Board, Central Coastal Region on March 14, 2013.

Digitally signed by Kenneth A Harris Jr
DN: cn=Kenneth A Harris Jr, o=CCRWQCB, ou=Interim Executive Officer, email=kharris@waterboards.ca.gov, c=US
Date: 2013.04.11 17:35:38 -07'00'

Kenneth A. Harris Jr.
Interim Executive Officer

RESOLUTION NO. R3-2013-0008

ATTACHMENT - PROPOSED BASIN PLAN AMENDMENTS

Revise the September 8, 1994 Basin Plan as follows:

AMENDMENT NO. 1. TOTAL MAXIMUM DAILY LOADS FOR NITROGEN COMPOUNDS AND ORTHOPHOSPHATE IN THE LOWER SALINAS RIVER AND RECLAMATION CANAL BASIN, AND THE MORO COJO SLOUGH SUBWATERSHED (INCLUDING ALISAL CREEK, ALISAL SLOUGH, BLANCO DRAIN, CHUALAR CREEK, ESPERANZA CREEK, ESPINOSA SLOUGH, GABILAN CREEK, MERRIT DITCH, MORO COJO SLOUGH, NATIVIDAD CREEK, THE OLD SALINAS RIVER, QUAIL CREEK, THE RECLAMATION CANAL, THE LOWER SALINAS RIVER (DOWNSTREAM OF GONZALEZ), SALINAS RIVER LAGOON (NORTH), SANTA RITA CREEK, AND TEMBLADERO SLOUGH).

Add the following to Chapter 4 after IX. P.:

IX. Q. TOTAL MAXIMUM DAILY LOADS FOR NITROGEN COMPOUNDS AND ORTHOPHOSPHATE IN THE LOWER SALINAS RIVER AND RECLAMATION CANAL BASIN, AND THE MORO COJO SLOUGH SUBWATERSHED (INCLUDING ALISAL CREEK, ALISAL SLOUGH, BLANCO DRAIN, CHUALAR CREEK, ESPERANZA CREEK, ESPINOSA SLOUGH, GABILAN CREEK, MERRIT DITCH, MORO COJO SLOUGH, NATIVIDAD CREEK, THE OLD SALINAS RIVER, QUAIL CREEK, THE RECLAMATION CANAL, THE LOWER SALINAS RIVER (DOWNSTREAM OF GONZALEZ), SALINAS RIVER LAGOON (NORTH), SANTA RITA CREEK, AND TEMBLADERO SLOUGH).

The Regional Water Quality Control Board adopted these TMDLs on March 14, 2013.
These TMDLs were approved by:

The State Water Resources Control Board on: _____ (date).

The California Office of Administrative Law on: _____ (date).

The U.S. Environmental Protection Agency on: _____ (date)

Acronyms

BMP: best management practices
MS4: municipal separate storm sewer systems
OAL: Office of Administrative Law

Problem Statement

Discharges of nitrogen compounds and orthophosphate are occurring at levels in surface waters which are impairing a spectrum of beneficial uses and, therefore, constitute a serious water quality problem. The municipal and domestic drinking water supply (MUN, GWR) beneficial uses and the range of aquatic habitat beneficial uses are not protected. Additionally, locally some waterbodies do not meet non-regulatory recommended guidelines for nitrate in agricultural supply water for sensitive crops indicating that potential or future designated agricultural supply beneficial uses may be detrimentally impacted. Further, recreational beneficial use (REC-1) of the Old Salinas River is not being supported on the basis of excessive amounts of algal toxins (microcystins) in surface water. A total of 35 waterbody/pollutant combinations are impaired due to exceedances of water quality

objectives. The pollutants addressed in these TMDLs are nitrate, unionized ammonia, and orthophosphate – orthophosphate is included as a pollutant contributing to biostimulatory impairments of surface waters. Reducing these pollutants will also address several Clean Water Act section 303(d)-listed dissolved oxygen and chlorophyll *a* impairments in the TMDL project area.

As a result of these conditions, water quality standards are not being attained. By developing TMDLs for the aforementioned pollutants, the water quality standards violations being addressed in these TMDLs include:

- Violations of drinking water standard for nitrate
- Violations of the Basin Plan general toxicity objective for inland surface waters and estuaries (violations of unionized ammonia objective)
- Violations of the Basin Plan narrative general objective for biostimulatory substances in inland surface waters and estuaries (as expressed by excessive nutrients, chlorophyll a, algal biomass, microcystins, and low dissolved oxygen)

The TMDLs protect and restore the municipal and domestic water supply beneficial use (MUN) and aquatic habitat beneficial uses currently being degraded by violations of the toxicity objective and the biostimulatory substances objective. The aquatic habitat beneficial uses currently being degraded include the following: wildlife habitat (WILD), cold fresh water habitat (COLD), warm fresh water habitat (WARM), migration of aquatic organisms (MIGR), spawning, reproduction, and/or early development (SPWN), preservation of biological habitats of special significance (BIOL), and rare, threatened, or endangered species (RARE). In addition, current or potential future beneficial uses of the agricultural water supply beneficial use (AGR) are not being supported. Nitrate can create problems not only for water supplies and aquatic habitat, but also potentially for nitrogen sensitive crops (grapes, avocado, citrus) by detrimentally impacting crop yield or quality.

For waterbodies that are not expressing biostimulatory impairments, the most stringent relevant water quality objective for nitrate (and therefore the one that is protective of the full range of all nitrate-impaired designated beneficial uses) is the numeric Basin Plan objective for nitrate in municipal and domestic water supply. Reducing nitrate pollution and ultimately achieving the nitrate drinking water quality standard in these waterbodies will therefore restore and be protective of the full range of MUN, GWR, and/or AGR designated beneficial uses of the surface waters which are being currently impaired by excess nitrate.

All waterbodies are required to attain the Basin Plan general toxicity objective for unionized ammonia in inland surface waters and estuaries.

For waterbodies that are expressing biostimulatory impairments, the most stringent relevant water quality objective for nitrate-nutrients (and therefore the one that is protective of the full range of all nutrient-impaired designated beneficial uses) is the Basin Plan narrative general objective for biostimulatory substances in inland surface waters and estuaries. These waterbodies must achieve concentration-based TMDLs for nitrate and orthophosphate as identified herein. Reducing nutrient pollution and ultimately achieving the TMDLs for nutrients in these waterbodies will therefore restore and be protective of the full range of aquatic habitat, MUN, GWR, and/or AGR designated beneficial uses of the surface waters which are being currently impaired by excess nutrients.

The following impairments are addressed with these TMDLs:

- Alisal Creek: nitrate, unionized ammonia, chlorophyll a
- Alisal Slough: nitrate, unionized ammonia, low dissolved oxygen
- Blanco Drain: nitrate, low dissolved oxygen
- Chualar Creek: nitrate, unionized ammonia

- Esperanza Creek: nitrate
- Espinosa Slough: nitrate, unionized ammonia
- Gabilan Creek: nitrate, unionized ammonia
- Lower Salinas River: nitrate
- Merrit Ditch: nitrate, unionized ammonia, low dissolved oxygen
- Moro Cojo Slough: unionized ammonia, low dissolved oxygen
- Natividad Creek: nitrate, unionized ammonia, low dissolved oxygen
- Old Salinas River: nitrate, low dissolved oxygen, chlorophyll a, microcystin
- Quail Creek: nitrate, unionized ammonia, low dissolved oxygen
- Reclamation Canal: nitrate, unionized ammonia, low dissolved oxygen
- Salinas River Lagoon (north): nitrate
- Santa Rita Creek: nitrate, unionized ammonia, low dissolved oxygen
- Tembladero Slough: nitrate, nutrients, chlorophyll a

Numeric Targets

Numeric targets are water quality targets developed and used to ascertain when and where water quality objectives are achieved, and hence, when beneficial uses are protected.

- *Target for Nitrate (MUN-GWR standards)*

For impaired stream reaches that are required to support drinking water (MUN) and groundwater recharge (GWR) beneficial uses, the nitrate numeric target is 10 mg/L (nitrate as N) for these TMDLs, which therefore is equal to the Basin Plan's numeric nitrate water quality objective protective of drinking water beneficial uses and groundwater recharge beneficial uses.

- *Target for Unionized Ammonia (toxicity)*

For unionized ammonia (a nitrogen compound), the numeric target is 0.025 mg/L (as N) for these TMDLs, which therefore is equal to the Basin Plan's unionized ammonia numeric water quality objective protective against toxicity in surface waters.

- *Targets for Biostimulatory Substances (nitrate and orthophosphate)*

The Basin Plan contains the following narrative water quality objectives for biostimulatory substances:

> *"Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses."*

To implement this narrative objective, staff developed scientifically peer reviewed numeric targets, based on established methodologies and approaches. The numeric targets for biostimulatory substances are presented in Table 1.

Table 1. Numeric targets for biostimulatory substances.

Stream Reaches	Nitrate-N (mg/L)	Orthophosphate-P (mg/L)
Lower Salinas River – downstream of Spreckels to and including Salinas River Lagoon (north)	1.4 Maximum Dry Season Samples (May 1-Oct 31) 8.0 Maximum Wet Season Samples (Nov 1-Apr 30)	0.07 Maximum Dry Season Samples (May 1-Oct 31) 0.3 Maximum Wet Season Samples (Nov 1-Apr 30)

Stream Reaches	Nitrate-N (mg/L)	Orthophosphate-P (mg/L)
Tembladero Slough all reaches Blanco Drain all reaches Merritt Ditch downstream of Merritt Lake Reclamation Canal downstream of Hartnell Rd. to confluence w/Tembladero Slough Alisal Slough all reaches Espinosa Slough from Espinosa lake to confluence with Reclamation Canal Santa Rita Creek all reaches	6.4 Maximum Dry Season Samples (May 1-Oct 31) 8.0 Maximum Wet Season Samples (Nov 1-Apr 30)	0.13 Maximum Dry Season Samples (May 1-Oct 31) 0.3 Maximum Wet Season Samples (Nov 1-Apr 30)
Gabilan Creek all reaches Natividad Creek all reaches Alisal Creek upstream of Hartnell Rd.	2.0 Maximum Dry Season Samples (May 1-Oct 31) 8.0 Maximum Wet Season Samples (Nov 1-Apr 30)	0.07 Maximum Dry Season Samples (May 1-Oct 31) 0.3 Maximum Wet Season Samples (Nov 1-Apr 30)
Old Salinas River from slide gate infow @ Salinas River Lagoon to Old Salinas River at Potrero Rd.	3.1 Maximum Dry Season Samples (May 1-Oct 31) 8.0 Maximum Wet Season Samples (Nov 1-Apr 30)	0.07 Maximum Dry Season Samples (May 1-Oct 31) 0.3 Maximum Wet Season Samples (Nov 1-Apr 30)
Stream Reaches	**Total Nitrogen (mg/L)**	**Orthophosphate-P (mg/L)**
Moro Cojo Slough, all reaches	1.7 Maximum (total nitrogen) Dry Season Samples (May 1-Oct 31) 8.0 Maximum (total nitrogen) Wet Season Samples (Nov 1-Apr 30)	0.13 Maximum Dry Season (May 1-Oct 31) 0.3 Maximum Wet Season Samples (Nov 1-Apr 30)

- *Targets for Nutrient-Response Indicators (dissolved oxygen and chlorophyll a and microcystins)*

Dissolved oxygen and chlorophyll *a* numeric targets are identified to ensure that streams do not show evidence of biostimulatory conditions and to provide primary indicator metrics to assess biological response to future nutrient water column concentration reductions.

For water bodies designated as cold fresh water habitat (COLD) and spawning (SPWN) beneficial uses the dissolved oxygen numeric targets is the same as Basin Plan numeric water quality

objective which states that dissolved oxygen concentrations shall not be reduced below 7.0 mg/L at any time.

For water bodies designated as warm fresh water habitat (WARM) beneficial use the dissolved oxygen numeric targets is the same as Basin Plan numeric water quality objective which states that dissolved oxygen concentrations shall not be reduced below 5.0 mg/L at any time.

Additionally, for all inland surface waters, enclosed bays and estuaries, the dissolved oxygen numeric target is the same as Basin Plan numeric water quality objective which states that the median dissolved oxygen should not fall below 85% saturation as a result of controllable water quality conditions.

For water bodies designated as cold fresh water habitat (COLD) and spawning (SPWN) or warm fresh water habitat (WARM) beneficial uses the numeric water quality target indicative of excessive dissolved oxygen saturation conditions is 13 mg/L (i.e., water column dissolved oxygen concentrations not to exceed 13 mg/L).

The numeric water quality target for chlorophyll *a* is 15 micrograms per liter (μg/L) for all water bodies (i.e., water column chlorophyll *a* concentrations not to exceed 15 μg/L).

The numeric water quality target for microcystins is 0.8 micrograms per liter (μg/L) for all waterbodies (i.e., microcystins not to exceed 0.8 μg/L (includes microcystin congeners LA, LR, RR and YR)).

Source Analysis

Discharges of unionized ammonia, nitrate, and orthophosphate originating from irrigated agriculture, urban lands, grazing lands, and natural sources are contributing loads to receiving waters. Irrigated agriculture is the overwhelming majority of controllable water column loads in the TMDL project area and this source category is not currently meeting its proposed load allocation. Urban storm water is a relatively minor source of nitrogen compounds and orthophosphate, but can be locally significant. Grazing lands are currently meeting proposed load allocations. The source analysis for this TMDL project is consistent with source analyses reported by other scientists in previous nutrient-water quality studies in the lower Salinas Valley, which provides for a qualitative weight-of-evidence approach.

TMDLs

The following TMDLs will result in attainment of water quality standards and will rectify impairments described in the Problem Statement.

The unionized ammonia TMDL for all waterbodies and reaches of the TMDL project area including Alisal Creek, Alisal Slough, Chualar Creek, Espinosa Slough, Merrit Ditch, Moro Cojo Slough, Natividad Creek, the Reclamation Canal, Quail Creek, Gabilan Creek and Santa Rita Creek is:

- Unionized ammonia concentration shall not exceed 0.025 mg/L-N in receiving waters.

The nitrate TMDL for all waters and reaches of the TMDL project area required to support MUN beneficial uses, including, Alisal Creek, Alisal Slough, Chualar Creek, Esperanza Creek, Gabilan Creek, Merrit Ditch, Natividad Creek, the Old Salinas River, Quail Creek, the Lower Salinas River (downstream of Gonzalez to Spreckels), Santa Rita Creek is:

- Nitrate concentration shall not exceed 10 mg/L-N in receiving waters.

The nitrate and orthophosphate TMDLs for the lower Salinas River (from downstream of Spreckels to the Salinas River Lagoon) and the Salinas River Lagoon (north) are:

- For dry season (May 1 to October 31): Nitrate-N concentration shall not exceed 1.4 mg/L in receiving waters; orthophosphate-P concentration shall not exceed 0.07 mg/L in receiving waters, and
- For wet season (November 1 to April 30): Nitrate-N concentration shall not exceed 8.0 mg/L in receiving water; orthophosphate-P concentration shall not exceed 0.3 mg/L in receiving water.

The nitrate and orthophosphate TMDLs for Espinosa Slough (all reaches from Espinosa Lake to confluence with Reclamation Canal), for the Reclamation Canal (all reaches downstream of Hartnell Rd to confluence with Tembladero Slough), for Merrit Ditch (all reaches downstream of Merrit Lake), and for all reaches of Alisal Slough, Santa Rita Creek, Blanco Drain and Tembladero Slough are:

- For dry season (May 1 to October 31): Nitrate-N concentration shall not exceed 6.4 mg/L in receiving waters; orthophosphate-P concentration shall not exceed 0.13 mg/L in receiving waters, and
- For wet season (November 1 to April 30): Nitrate-N concentration shall not exceed 8.0 mg/L in receiving water; orthophosphate-P concentration shall not exceed 0.3 mg/L in receiving water.

The nitrate and orthophosphate TMDLs for Gabilan Creek (all reaches downstream of Crazy Horse Road to confluence with Reclamation Canal), and for all reaches of Alisal Creek and Natividad Creek are:

- For dry season (May 1 to October 31): Nitrate-N concentration shall not exceed 2.0 mg/L in receiving waters; orthophosphate-P concentration shall not exceed 0.07 mg/L in receiving waters, and
- For wet season (November 1 to April 30): Nitrate-N concentration shall not exceed 8.0 mg/L in receiving water; orthophosphate-P concentration shall not exceed 0.3 mg/L in receiving water.

The nitrate and orthophosphate TMDLs for all reaches of the Old Salinas River are:

- For dry season (May 1 to October 31): Nitrate-N concentration shall not exceed 3.1 mg/L in receiving waters; orthophosphate-P concentration shall not exceed 0.07 mg/L in receiving waters, and
- For wet season (November 1 to April 30): Nitrate-N concentration shall not exceed 8.0 mg/L in receiving water; orthophosphate-P concentration shall not exceed 0.3 mg/L in receiving water.

The total nitrogen and orthophosphate TMDLs for all reaches of the Moro Cojo Slough are:

- For dry season (May 1 to October 31): total Nitrogen-N concentration shall not exceed 1.7 mg/L in receiving waters; orthophosphate-P concentration shall not exceed 0.13 mg/L in receiving waters, and
- For wet season (November 1 to April 30): total Nitrogen-N concentration shall not exceed 8.0 mg/L in receiving water; orthophosphate-P concentration shall not exceed 0.3 mg/L in receiving water.

The TMDLs are considered achieved when water quality conditions meet all regulatory and policy requirements necessary for removing the impaired waters from Clean Water Act section 303(d) list of impaired waters.

Final Allocations and Interim Allocations

Owners and operators of irrigated lands, municipal storm water entities, natural sources, and owners/operators of livestock and domestic animals are assigned unionized ammonia, nitrate, and orthophosphate allocations equal to the TMDL and numeric targets.

The final allocations to responsible parties are shown in Table IX Q-1. The final allocations are equal to the TMDLs and should be achieved 30-years after the TMDL effective date. Unlike the load-based TMDL method, the concentration-based allocations do not add up to the TMDL because concentrations of individual pollution sources are not additive. Since the TMDLs are concentration-based, the allocations are not additive.

Recognizing that achievement of the more stringent final dry season biostimulatory allocations embedded in Table IX Q-1 may require a significant amount to time to achieve, interim allocations are identified. Interim allocations will be used as benchmarks in assessing progress towards the final allocations. Interim allocations are shown in Table IX Q-2.

Controllable Water Quality Conditions

In accordance with the Water Quality Control Plan for the Central Coast Basin (Basin Plan), controllable water quality shall be managed to conform or to achieve the water quality objectives and load allocations contained in these TMDLs. The Basin Plan defines controllable water quality conditions as follows: *"Controllable water quality conditions are those actions or circumstances resulting from man's activities that may influence the quality of the waters of the State and that may be reasonably controlled."* - Water Quality Control Plan for the Central Coast Basin, Chapter 3. Water Quality Objectives, page III-2.

Compliance with Anti-degradation Requirements

State and federal anti-degradation policies require, in part, that where surface waters are of higher quality than necessary to protect beneficial uses, the high quality of those waters must be maintained unless otherwise provided by the policies. The federal anti-degradation policy, 40 C.F.R. 131.12(a), states in part, *"Where the quality of waters exceed levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the State finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the State's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located…"*

Compliance with anti-degradation requirements may be determined on the basis of trends in declining water quality in applicable waterbodies, consistent with the methodologies and criteria provided in Section 3.10 of the California 303(d) Listing Policy (adopted, Sept. 20, 2004, SWRCB Resolution No. 2004-0063). Section 3.10 of the California 303(d) Listing Policy explicitly addresses the anti-degradation component of water quality standards as defined in 40 CFR 130.2(j), and provides for identifying trends of declining water quality as a metric for assessing compliance with anti-degradation requirements.

Section 3.10 of the California 303(d) Listing Policy states that pollutant-specific water quality objectives need not be exceeded to be considered non-compliant with anti-degradation requirements *"if the water segment exhibits concentrations of pollutants or water body conditions for any listing factor that shows a trend of declining water quality standards attainment".*

Practically speaking, this means that, for example, stream reaches or waterbodies that have a concentration-based TMDL allocation of 10 mg/L nitrate-N, and if current water quality or future water quality assessments in the stream reach indicate nitrate-N in fact well under 10 mg/L nitrate-N,

the allocation does not give license for controllable nitrogen sources to degrade the water resource all the way up to the maximum allocation = 10 mg/L nitrate-N.

- ***Table IX Q-1. Final Allocations and Responsible Parties***

FINAL WASTE LOAD ALLOCATIONS (WLAs)					
Waterbody the responsible party is discharging to	**Party Responsible for Allocation & NPDES/WDR number**	**Receiving Water Nitrate as N WLA (mg/L)**	**Receiving Water Orthophosphate as P WLA (mg/L)**	**Receiving Water Total Nitrogen as N WLA (mg/L)**	**Receiving Water Unionized Ammonia as N WLA (mg/L)**
Lower Salinas River downstream of Spreckels, CA[1]	City of Salinas (Storm drain discharges to MS4s) Storm Water Permit NPDES No. CA00049981 County of Monterey (Storm drain discharges to MS4s) Storm Water General Permit NPDES No. CAS000004	Allocation-1 *(see descriptions of allocations at bottom of this table)*	Allocation-2	Not Applicable	Allocation-5
Santa Rita Creek[2], Reclamation Canal[3]	City of Salinas (Storm drain discharges to MS4s) Storm Water Permit NPDES No. CA00049981 County of Monterey (Storm drain discharges to MS4s) Storm Water General Permit NPDES No. CAS000004	Allocation-3	Allocation-4	Not Applicable	Allocation-5
Gabilan Creek[4]	City of Salinas (Storm drain discharges to MS4s) Storm Water Permit NPDES No. CA00049981 County of Monterey (Storm drain discharges to MS4s) Storm Water General Permit NPDES No. CAS000004	Allocation-6	Allocation-2	Not Applicable	Allocation-5

FINAL WASTE LOAD ALLOCATIONS (WLAs)					
Waterbody the responsible party is discharging to	**Party Responsible for Allocation & NPDES/WDR number**	**Receiving Water Nitrate as N WLA (mg/L)**	**Receiving Water Orthophosphate as P WLA (mg/L)**	**Receiving Water Total Nitrogen as N WLA (mg/L)**	**Receiving Water Unionized Ammonia as N WLA (mg/L)**
Natividad Creek[5] Alisal Creek[6]	City of Salinas (Storm drain discharges to MS4s) Storm Water Permit NPDES No. CA00049981 County of Monterey (Storm drain discharges to MS4s) Storm Water General Permit NPDES No. CAS000004	Allocation-6	Allocation-2	Not Applicable	Allocation-5

FINAL LOAD ALLOCATIONS (LAs)					
Waterbody the responsible party is discharging to	**Party Responsible for Allocation (Source)**	**Receiving Water Nitrate as N LA (mg/L)**	**Receiving Water Orthophosphate as P LA (mg/L)**	**Receiving Water Total Nitrogen as N LA (mg/L)**	**Receiving Water Unionized Ammonia as N LA (mg/L)**
Lower Salinas River downstream of Spreckels, CA[1]	Owners/operators of irrigated agricultural lands (Discharges from irrigated lands)	Allocation-1 *(see descriptions of allocations at bottom of this table)*	Allocation-2	Not Applicable	Allocation-5
	Owners/operators of land used for/containing domestic animals/livestock (Domestic animals/livestock waste not draining to MS4s)				
	No responsible party (Natural sources)				
Lower Salinas River upstream of Spreckels, CA[17]	Owners/operators of irrigated agricultural lands (Discharges from irrigated lands)	Allocation-9	Not Applicable	Not Applicable	Allocation-5
	Owners/operators of land used for/containing domestic animals/livestock (Domestic animals/livestock waste not draining to MS4s)				
	No responsible party (Natural sources)				

FINAL LOAD ALLOCATIONS (LAs)					
Waterbody the responsible party is discharging to	**Party Responsible for Allocation (Source)**	**Receiving Water Nitrate as N LA (mg/L)**	**Receiving Water Orthophosphate as P LA (mg/L)**	**Receiving Water Total Nitrogen as N LA (mg/L)**	**Receiving Water Unionized Ammonia as N LA (mg/L)**
Merrit Ditch[7], Reclamation Canal[3], Alisal Slough[8], Santa Rita Creek[2], Espinosa Slough[16]	Owners/operators of irrigated agricultural lands (Discharges from irrigated lands)	Allocation-3	Allocation-4	Not Applicable	Allocation-5
	Owners/operators of land used for/containing domestic animals/livestock (Domestic animals/livestock waste not draining to MS4s)				
	No responsible party (Natural sources)				
Tembladero Slough[9], Blanco Drain[10]	Owners/operators of irrigated agricultural lands (Discharges from irrigated lands)	Allocation-3	Allocation-4	Not Applicable	Allocation-5
	Owners/operators of land used for/containing domestic animals/livestock (Domestic animals/livestock waste not draining to MS4s)				
	No responsible party (Natural sources)				
Gabilan Creek[4]	Owners/operators of irrigated agricultural lands (Discharges from irrigated lands)	Allocation-6	Allocation-2	Not Applicable	Allocation-5
	Owners/operators of land used for/containing domestic animals/livestock (Domestic animals/livestock waste not draining to MS4s)				
	No responsible party (Natural sources)				
Natividad Creek[5] Alisal Creek[6]	Owners/operators of irrigated agricultural lands (Discharges from irrigated lands)	Allocation-6	Allocation-2	Not Applicable	Allocation-5

FINAL LOAD ALLOCATIONS (LAs)					
Waterbody the responsible party is discharging to	**Party Responsible for Allocation (Source)**	**Receiving Water Nitrate as N LA (mg/L)**	**Receiving Water Orthophosphate as P LA (mg/L)**	**Receiving Water Total Nitrogen as N LA (mg/L)**	**Receiving Water Unionized Ammonia as N LA (mg/L)**
	Owners/operators of land used for/containing domestic animals/livestock (Domestic animals/livestock waste not draining to MS4s)				
	No responsible party (Natural sources)				
Old Salinas River[11]	Owners/operators of irrigated agricultural lands (Discharges from irrigated lands)	Allocation-7	Allocation-2	Not Applicable	Allocation-5
	Owners/operators of land used for/containing domestic animals/livestock (Domestic animals/livestock waste not draining to MS4s)				
	No responsible party (Natural sources)				
Moro Cojo Slough[12]	Owners/operators of irrigated agricultural lands (Discharges from irrigated lands)	Not applicable *(biostimulation will be assessed on the basis of total nitrogen)*	Allocation-4	Allocation-8	Allocation-5
	Owners/operators of land used for/containing domestic animals/livestock (Domestic animals/livestock waste not draining to MS4s)				
	No responsible party (Natural sources)				
Chualar Creek[13], Quail Creek[14]	Owners/operators of irrigated agricultural lands (Discharges from irrigated lands)	Allocation-9	Not Applicable	Not Applicable	Allocation-5
	Owners/operators of land used for/containing domestic animals/livestock (Domestic animals/livestock waste not draining to MS4s)				
	No responsible party (Natural sources)				

FINAL LOAD ALLOCATIONS (LAs)					
Waterbody the responsible party is discharging to	**Party Responsible for Allocation (Source)**	**Receiving Water Nitrate as N LA (mg/L)**	**Receiving Water Orthophosphate as P LA (mg/L)**	**Receiving Water Total Nitrogen as N LA (mg/L)**	**Receiving Water Unionized Ammonia as N LA (mg/L)**
Esperanza Creek[15]	Owners/operators of irrigated agricultural lands (Discharges from irrigated lands)	Allocation-9	Not Applicable	Not Applicable	Allocation-5
	Owners/operators of land used for/containing domestic animals/livestock (Domestic animals/livestock waste not draining to MS4s)				
	No responsible party (Natural sources)				

Description of allocations.

Allocation [A]	***Compound***	***Concentration (mg/L)*** [B]
Allocation 1	Nitrate as N	Dry Season (May 1-Oct. 31): **1.4** Wet Season (Nov. 1-Apr. 30): **8.0**
Allocation 2	Orthophosphate as P	Dry Season (May 1-Oct. 31): **0.07** Wet Season (Nov. 1-Apr. 30): **0.3**
Allocation 3	Nitrate as N	Dry Season (May 1-Oct. 31): **6.4** Wet Season (Nov. 1-Apr. 30): **8.0**
Allocation 4	Orthophosphate as P	Dry Season (May 1-Oct. 31): **0.13** Wet Season (Nov. 1-Apr. 30): **0.3**
Allocation 5	Unionized Ammonia as N	Year-round: **0.025**
Allocation 6	Nitrate as N	Dry Season (May 1-Oct. 31): **2.0** Wet Season (Nov. 1-Apr. 30): **8.0**
Allocation 7	Nitrate as N	Dry Season (May 1-Oct. 31): **3.1** Wet Season (Nov. 1-Apr. 30): **8.0**
Allocation 8	Total Nitrogen as N	Dry Season (May 1-Oct. 31): **1.7** Wet Season (Nov. 1-Apr. 30): **8.0**
Allocation 9	Nitrate as N	Year-round: **10**

[A] Federal and state anti-degradation requirements apply to all waste load and load allocations.

[B] Achievement of final waste load and load allocations to be determined on the basis of the number of measured exceedances and/or other criteria set forth in Section 4 of the *Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List* (Listing Policy - State Water Resources Control Board, Resolution No. 2004-0063, adopted September 2004), or as consistent with any relevant revisions of the Listing Policy promulgated in the future pursuant to Government Code section 11353..

Responsible parties shall meet allocations in all receiving surface waterbodies receiving the responsible parties' discharges.

The parties responsible for the allocation to controllable sources are not responsible for the allocation to natural sources.

[1] Lower Salinas River: all reaches from downstream of Spreckels (downstream of monitoring site 309SSP) to the confluence with the Pacific Ocean including Salinas River Lagoon (North)
[2] Santa Rita Creek: all reaches and tributaries, from the confluence with the Reclamation Canal to the uppermost reach of the waterbody.
[3] Reclmation Canal: all reaches and tributaries, which includes from confluence with Tembladero Slough, to upstream confluence with Alisal Creek.
[4] Gabilan Creek: all reaches and tributaries downstream of Crazy Horse Rd.
[5] Natividad Creek: all reaches and tributaries, from the confluence with Carr Lake to the uppermost reach of the waterbody.
[6] Alisal Creek: all reaches and tributaries from the confluence with the Reclamation Canal to the uppermost reach of the waterbody.
[7] Merrit Ditch: all reaches and tributaries from the confluence with the Reclamation Canal to the uppermost reach of the waterbody.
[8] Alisal Slough: all reaches and tributaries of the waterbody.
[9] Tembladero Slough: all reaches and tributaries from the confluence with the Salinas Reclamation Canal downstream to its confluence with the Old Salinas River.
[10] Blanco Drain: all reaches and tributaries of the waterbody.
[11] Old Salinas River: all reaches and tributaries from the slide gate at the head of the Old Salinas River adjacent to Mulligan Hill, downstream to Potrero Road.
[12] Moro Cojo Slough: all reaches and tributaries, from the confluence with Moss Landing Harbor to the uppermost reach of the waterbody.
[13] Chualar Creek: all reaches and tributaries, from the confluence with the Salinas River to the uppermost reach of the waterbody.
[14] Quail Creek: all reaches and tributaries, from the confluence with the Salinas River to the uppermost reach of the waterbody.
[15] Esperanza Creek: all reaches and tributaries, from the confluence with the Salinas River to the uppermost reach of the waterbody.
[16] Espinosa Slough all reaches and tributaries, from the confluence with the Reclamation Canal to the uppermost reach of the waterbody.
[17] Lower Salinas River: all reaches from upstream of Spreckels (upstream of monitoring site 309SSP) to Gonzalez, CA.

Table IX Q-2. Interim Allocations

INTERIM WASTE LOAD ALLOCATIONS (WLAs)			
Waterbody	**Party Responsible for Allocation (Source)**	**First Interim WLA**	**Second Interim WLA**
All waterbodies given waste load allocations (WLAs) as identified in Final Waste Load Allocations Table	City of Salinas (Storm drain discharges to MS4s) Storm Water Permit NPDES No. CA00049981 County of Monterey (Storm drain discharges to MS4s) Storm Water General Permit NPDES No. CAS000004	Achieve **MUN standard-based** and **Unionized Ammonia objective-based** allocations: Allocation-5 Allocation-9 **12 years after effective date of the TMDLs**	Achieve **Wet Season** (Nov. 1 to Apr. 30) **Biostimulatory target-based** TMDL allocations: Wet Season Allocation/Waterbody combinations as identified in Final Waste Load Allocations Table **20 years after effective date of the TMDLs**

INTERIM LOAD ALLOCATIONS (LAs)			
Waterbody	**Party Responsible for Allocation (Source)**	**First Interim LA**	**Second Interim LA**
All waterbodies given load allocations (LAs) as identified in Final Load Allocations Table.	Owners/operators of irrigated agricultural lands (Discharges from irrigated lands)	Achieve **MUN standard-based** and **Unionized Ammonia objective-based** allocations: Allocation-5 Allocation-9 **12 years after effective date of the TMDLs**	Achieve **Wet Season** (Nov. 1 to Apr. 30) **Biostimulatory target-based** TMDL allocations: Wet Season Allocation/Waterbody combinations as identified in Final Load Allocations Table. **20 years after effective date of the TMDLs**

Margin of Safety

A margin of safety is incorporated implicitly in the TMDLs through conservative model assumptions and statistical analysis. In addition, an explicit margin of safety is incorporated by reserving 20% of the load, calculated on a concentration basis, from wet season allocations.

Implementation

DISCHARGES FROM IRRIGATED AGRICULTURAL LANDS:

Owners and operators of irrigated agricultural lands must comply with the Conditional Waiver of Waste Discharge Requirements for Irrigated Lands (Order R3-2012-0011; the "Agricultural Order") and the Monitoring and Reporting Programs in accordance with Orders R3-2012-0011-01, R3-2012-0011-02, and R3-2012-0011-03, or their renewals or replacements, to meet load allocations and achieve the TMDLs. The requirements in these orders, and their renewals or replacements in the future, will implement the TMDLs and rectify the impairments addressed in the TMDLs.

Current requirements in the Agricultural Order that will achieve the load allocations include:

A. Implement, and update as necessary, management practices to reduce nutrient loading.
B. Maintain existing, naturally occurring riparian vegetative cover in aquatic habitat areas.
C. Develop/update and implement Farm Plans.
D. Properly destroy abandoned groundwater wells.
E. Develop and initiate implementation of an Irrigation and Nutrient Management Plan (INMP) or alternative certified by a Professional Soil Scientist, Professional Agronomist, or Crop Advisor certified by the American Society of Agronomy, or similarly qualified professional.

Monitoring

Owners and operators of irrigated agricultural lands must perform monitoring and reporting in accordance with Monitoring and Reporting Program Orders R3-2012-0011-01, R3-2012-0011-02, and R3-2012-0011-03, as applicable to the operation.

Determination of Compliance with Load Allocations

Load allocations will be achieved through a combination of implementation of management practices and strategies to reduce nitrogen compound and orthophosphate loading, and water quality monitoring. Flexibility to allow owners/operators of irrigated lands to demonstrate compliance with

load allocations is a consideration. Additionally, staff is aware that not all implementing parties are necessarily contributing to or causing a surface water impairment. However, it is important to recognize that impacting shallow groundwater with nutrient pollution may also impact surface water quality via baseflow loading contributions to the surface waterbodies.

To allow for flexibility, Water Board staff will assess compliance with load allocations using one or a combination of the following:

A. Attaining the load allocations in the receiving water;
B. Attaining receiving water TMDL numeric targets for nutrient-response indicators (i.e., dissolved oxygen water quality objectives, chlorophyll *a* targets and microcystin targets) and mitigation of downstream nutrient impacts to receiving waterbodies may constitute a demonstration of attainment of the nitrate, nitrogen and orthophosphate-based seasonal biostimulatory load allocations. Note that implementing parties are strongly encouraged to maximize overhead riparian canopy, where and if appropriate, using riparian vegetation, because doing so could result in achieving nutrient-response indicator targets before allocations are achieved (resulting in a less stringent allocation);
C. Demonstrating quantifiable receiving water mass load reductions;
D. Owners/operators of irrigated lands may be deemed in compliance with load allocations by implementing management practices that are capable of achieving interim and final load allocations identified in these TMDLs;
E. Owners/operators of irrigated lands may provide sufficient evidence to demonstrate that they are and will continue to be in compliance with the load allocations. Such evidence could include documentation submitted by the owner/operator to the Executive Officer that the owner/operator is not causing waste to be discharged to impaired waterbodies resulting or contributing to violations of the load allocations.

STORM DRAIN DISCHARGES TO MS4s:

The Central Coast Water Board will require MS4 entities to develop and submit for Executive Officer approval a Wasteload Allocation Attainment Program (WAAP). The WAAP shall be submitted within one year of approval of the TMDLs by OAL, or within one year of a stormwater permit renewal, whichever occurs first. The WAAP shall include descriptions of the actions that will be taken by the MS4 entity to attain the TMDL waste load allocations, and shall specifically address:

A. Development of an implementation and assessment strategy;
B. Source identification and prioritization;
C. BMP identification, prioritization, implementation schedule, analysis, and effectiveness assessment;
D. Monitoring and reporting program development and implementation. Monitoring program goals shall include: 1) assessment of stormwater discharge and receiving water discharge quality, 2) assessment of BMP effectiveness, and 3) demonstration and progress towards achieving interim goals and waste load allocations.
E. Coordination with stakeholders; and
F. Other pertinent factors.

Determination of Compliance with Waste Load Allocations

Waste load allocations will be achieved through a combination of implementation of management practices and strategies to reduce nitrogen compound and orthophosphate loading, and water quality monitoring.

To allow for flexibility, Water Board staff will assess compliance with waste load allocations using one or a combination of the following:

A. Attaining the waste load allocations in the receiving water;

B. Attaining receiving water TMDL numeric targets for nutrient-response indicators (i.e., dissolved oxygen water quality objectives, chlorophyll a targets, and microcystin targets) and mitigation of downstream nutrient impacts to receiving waterbodies may constitute a demonstration of the attainment of the nitrate, nitrogen and orthophosphate-based seasonal biostimulatory waste load allocations. Note that implementing parties are strongly encouraged to maximize overhead riparian canopy using riparian vegetation, as appropriate, because doing so could result in achieving nutrient-response indicator targets before allocations are achieved (resulting in a less stringent allocation);

C. Demonstrate compliance by measuring concentrations in stormwater outfalls;

D. Demonstrate compliance by demonstrating load reductions on mass basis at stormdrain outfalls;

E. MS4s may be deemed in compliance with waste load allocations through implementation and assessment of BMPs capable of achieving interim and final waste load allocations identified in this TMDL in combination with water quality monitoring for a balanced approach to determining program effectiveness;

F. Any other effluent limitations and conditions which are consistent with the assumptions and requirements of the waste load allocations.

Monitoring

MS4 entities with operations and storm water conveyance systems in the TMDL project areas - specifically the City of Salinas and County of Monterey - are required to develop and submit monitoring programs as part of their WAAP. The goals of the monitoring programs are described in the requirements of the WAAP.

Staff encourages the City of Salinas and County of Monterey to develop and submit creative and meaningful monitoring programs. Monitoring strategies can use a phased approach, for example, whereby outfall or receiving water monitoring is phased in after BMPs have been implemented and assessed for effectiveness. Pilot projects where BMPs are implemented in well-defined areas covering a fraction of the MS4 that facilitates accurate assessment of how well the BMPs control pollution sources, are acceptable, with the intent of successful practices then being implemented in other or larger parts of the MS4.

DOMESTIC ANIMAL/LIVESTOCK DISCHARGES:

The water quality data available from stream reaches that exclusively drain grazing lands, or lands where grazed animals and farm animals can be expected to occur, indicate the nitrogen compounds and orthophosphate proposed water quality targets, and thus load allocations, are being met in these reaches. Based on available data, this source category is meeting their load allocation. As such, no new regulatory requirements are deemed necessary or are being proposed.

It is important to note that the TMDL project area is subject to the Domestic Animal Waste Discharge Prohibition and are subject to compliance with an approved indicator bacteria TMDL load allocation. Implementation efforts by responsible parties to comply with this prohibition and with indicator bacteria load allocations will, as a practical matter, also reduce the risk of nitrogen and phosphorus loading to surface waters from domestic animal waste. It should be noted that available information does not conclusively demonstrate that all domestic animal operations are currently meeting load allocations; there are potentially unpermitted confined animal facilities, equestrian facilities, or grazing animal operations that do not meet load allocations. More information will be obtained, if merited, during the implementation phase of the TMDLs to further assess the level of nutrient contribution from these source categories, and to identify any actions if necessary to reduce loading.

Tracking and Evaluation

Every three years, beginning three years after the TMDLs are approved by the OAL, the Central Coast Water Board will perform a review of implementation actions, monitoring results, and evaluations submitted by responsible parties of their progress toward achieving their allocations, dependent upon staff availability and priorities. The Central Coast Water Board will use annual reports, nonpoint source pollution control implementation programs, evaluations submitted by responsible parties, and other available information to determine progress toward implementing required actions and achieving the allocations and the numeric goal.

Responsible parties will continue monitoring and reporting according to this plan for at least three years, at which time the Central Coast Water Board will determine the need for continuing or otherwise modifying the monitoring requirements. Responsible parties may also demonstrate that although water quality objectives are not being achieved in receiving waters, controllable sources of nitrogen compounds and orthophosphate are not contributing to the exceedance. If this is the case, the Central Coast Water Board may re-evaluate the numeric goal and allocations. For example, the Central Coast Water Board may pursue and approve a site-specific objective. The site-specific objective would be based on evidence that natural conditions or background sources alone were the cause of exceedances of the Basin Plan water quality objectives.

Three-year reviews will continue until the water quality objectives are achieved. The compliance schedule for achieving these TMDLs is 30 years after the date of approval by the OAL.

Optional Special Studies and Reconsideration of the TMDLs

Additional monitoring and voluntary optional special studies would be useful to evaluate the uncertainties and assumptions made in the development of these TMDLs. The results of special studies may be used to reevaluate waste load allocations and load allocations in these TMDLs. Implementing parties may submit work plans for optional special studies (if implementing parties choose to conduct special studies) for approval by the Executive Officer. Special studies completed and final reports shall be submitted for Executive Officer approval. Additionally, eutrophication is an active area of research. Consequently, ongoing scientific research on eutrophication and biostimulation may further inform the Water Board regarding waste load or load allocations that are protective against biostimulatory impairments, implementation timelines, and/or downstream impacts. At this time, staff maintains there is sufficient information to begin to implement these TMDLs and make progress towards attainment of water quality standards and the proposed allocations. However, in recognition of the uncertainties regarding nutrient pollution and biostimulatory impairments, staff proposes that the Water Board reconsider the waste load and load allocations, if merited by optional special studies and new research, ten years after the effective date of the TMDLs, which is upon approval by the OAL. A time schedule for optional studies and Central Coast Water Board reconsideration of the TMDL is presented in Table IX Q-3.

Further, the Central Coast Water Board may also reconsider these TMDLs, the nutrient water quality criteria, or other TMDL elements on the basis of potential future promulgation of a statewide nutrient policy for inland surface waters in the State of California.

Table IX Q-3. Time schedule for optional studies and Water Board reconsideration of waste load allocations and load allocations

Proposed Actions	**Description**	**Time Schedule-Milestones**
Optional studies work plans	Implementing parties shall submit work plans for optional special studies (if implementing parties choose to conduct special studies) for approval by Executive Officer	By five years after the effective date of the TMDLs
Final optional studies	Optional studies completed and final report submitted for Executive Officer approval.	By eight years after the effective date of the TMDLs
Reconsideration of the TMDLs	If merited by optional special studies or information from ongoing research into eutrophication issues, the Water Board will reconsider the Wasteload and Load allocations and/or implementation timelines adopted pursuant to these TMDLs.	By ten years after the effective date of the TMDLs