

DRAFT FOR PUBLIC COMMENTS AND PEER REVIEW
March 15, 2019

California Regional Water Quality Control Board Santa Ana Region

TENTATIVE RESOLUTION NO. R8-2019-0041

Resolution Amending the Water Quality Control Plan for the Santa Ana River Basin to Revise the Nutrient Total Maximum Daily Loads (TMDLs) for Lake Elsinore and Canyon Lake, in the San Jacinto River Watershed, Riverside County California

WHEREAS, the California Regional Water Quality Control Board, Santa Ana Region (hereinafter, Regional Board), finds that:

1. An updated Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) was:
 - Adopted by the Regional Board on March 11, 1994.
 - Approved by the State Water Resources Control Board (SWRCB) on July 21, 1994.
 - And, approved by the Office of Administrative Law (OAL) on January 24, 1995.
2. The Basin Plan specifies the following beneficial uses for Lake Elsinore:
 - warm freshwater aquatic habitat (WARM),
 - body contact recreation (REC1),
 - non-body contact recreation (REC2),
 - and wildlife habitat (WILD).

Lake Elsinore was exempted from the MUN designation, consistent with the Sources of Drinking Water Policy (SWRCB Resolution No. 88-63), by Regional Board Resolution No. 89-0042, due to the naturally occurring elevated salinity concentrations.

3. The Basin Plan specifies the following beneficial uses for Canyon Lake:
 - warm freshwater aquatic habitat (WARM),
 - body contact recreation (REC1),
 - non-body contact recreation (REC2),
 - wildlife habitat (WILD),
 - municipal and domestic water supply (MUN),
 - agriculture water supply (AGR),
 - and groundwater recharge (GWR).
4. The Basin Plan specifies the narrative water quality objective for algae for inland surface waters, including Lake Elsinore and Canyon Lake (Lakes), that: “waste

discharges shall not contribute to excessive algae growth in receiving waters”.

5. The Basin Plan specifies the following numeric water quality objectives for Lake Elsinore and Canyon Lake:

Lake Elsinore

- Total Dissolved Solids (TDS), 2000 mg/L
- Total Nitrogen (TN), 1.5 mg/L

Canyon Lake

- TDS, 700 mg/L
- Hardness, 325 mg/L
- Sodium, 100 mg/L
- Chloride, 90 mg/L
- Total Inorganic Nitrogen (TIN), 8 mg/L
- Sulfate, 290 mg/L

These numeric water quality objectives were established based on ambient water quality measurements collected in 1973-74 and serve as anti-degradation targets for the Lakes.

6. For inland surface waters, the Basin Plan specifies that the: “dissolved oxygen content of surface waters shall not be depressed below 5 mg/L for waters designated WARM, as a result of controllable water quality factors.” This objective applies to both Lakes.
7. The narrative, and numeric, water quality objectives pertaining to excessive algae growth and dissolved oxygen are not being met in Lake Elsinore, as demonstrated by a history of significant algae blooms, low dissolved oxygen concentrations, and fish die offs due to these conditions. Lake Elsinore also has Harmful Algae Blooms (HABs) which produce cyanotoxins that, depending on concentration, may pose a risk to public health. Lake Elsinore beneficial uses adversely impacted include WARM, WILD, REC1 and REC2.
8. The narrative objective pertaining to excessive algae growth is not being met in Canyon Lake due to a Lake wide bloom of brown algae in 2018 and the continued occurrence of Harmful Algae Blooms (HABs) which produce cyanotoxins that, depending on concentration, may pose a risk to public health. Monitoring has also shown that there has been a reduction in excessive algae growth since 2006, and higher dissolved oxygen concentrations, in Canyon Lake. Canyon Lake beneficial uses adversely impacted by excessive algae, HABs and low dissolved oxygen, when these conditions occur, include MUN, WARM, WILD, REC1 and REC2. Discharges of nutrients to Canyon Lake also contribute to the impairment of Lake Elsinore as

these discharges continue to flow downstream.

9. As a result of the beneficial use impacts to the two Lakes, on March 11, 1994 by Resolution No. 94-029, and in subsequent years, the Regional Board recommended that the State Water Resources Control Board list Lake Elsinore and Canyon Lake as water quality limited in accordance with Section 303(d) of the Clean Water Act. The Regional Board reaffirmed these listings again on March 6, 1998 by Resolution No. 98-33. Section 303(d) requires the establishment of a Total Maximum Daily Load (TMDL) for the pollutant(s) causing the impairment. Phosphorus and nitrogen are the nutrients causing the impairment. Section 303(d) also requires the allocation of the TMDL among the sources of nutrient inputs. State law requires an implementation plan and schedule to ensure that the TMDL is met and that compliance with water quality standards is ultimately achieved.
10. The Basin Plan was amended on December 20, 2004, by Resolution No. R8-2004-0037, a “Resolution Amending the Water Quality Control Plan for the Santa Ana River Basin to Incorporate Nutrient Total Maximum Daily Loads for Lake Elsinore and Canyon Lake” (with Final approval by USEPA on September 30, 2005), to add to Chapter 5, the Basin Plan Implementation Plan, Total Maximum Daily Loads for Nutrients in Lake Elsinore and Canyon Lake, that established the TMDLs for nutrients in the Lakes, Numeric Targets for Total Nitrogen (TN), Total Phosphorous (TP), Chlorophyll-a, Ammonia, and Dissolved Oxygen, Waste Load Allocations for point source discharges and Load Allocations for non-point source discharges of nutrients (TN and TP), a TMDL Implementation Plan and Compliance Schedule, and Monitoring Requirements.
11. The Lake Elsinore and San Jacinto Watersheds Authority (LESJWA), a joint powers authority founded by the City of Lake Elsinore, City of Canyon Lake, the County of Riverside, Elsinore Valley Municipal Water District and the Santa Ana Watershed Project Authority, together with LESJWA’s TMDL Task Force of TMDL affected stakeholders (TMDL Task Force), which is comprised of Riverside County, Cities of Beaumont, Canyon Lake, Hemet, Lake Elsinore, Menifee, Moreno Valley, Murrieta, Perris, Riverside, San Jacinto, Wildomar, Elsinore Valley MWD, San Jacinto Agricultural Operators, San Jacinto Dairy and CAFO Operators, CA Department of Transportation, CA Dept. of Fish and Wildlife-San Jacinto Wetlands, Eastern MWD, March ARB, and US Air Force), have been leading efforts to improve water quality in Lake Elsinore, Canyon Lake and the San Jacinto Watersheds since 2006.
12. LESJWA assisted the Regional Board in the development of the 2004 TMDL and the Task Force has been leading efforts to implement the 2004 TMDL through the implementation of numerous nutrient source control measures throughout the watershed and in both Lakes. LESJWA and the TMDL Task Force also manage the water quality monitoring required by the 2004 TMDL, approved by Regional Board Resolution No. R8-2006-0031, a “Resolution Approving the Lake Elsinore and San Jacinto Watersheds Authority Monitoring Program Proposal Submitted Pursuant to

the Lake Elsinore and Canyon Lake Nutrient Total Maximum Daily Loads Specified in the Water Quality Control Plan for the San Ana River Basin.” Over 130 representatives of other agencies, environmental groups, and other interested stakeholders, are also provided notices of the Task Force’s meetings, and are invited to participate and provide comments and suggestions during the meetings and are provided with the Agendas and Meeting Notes for all the Task Force meetings. SAWPA also maintains an online repository of the agendas, notes, monitoring reports, and other technical reports for compliance with the 2004 TMDL and for this TMDL update, revision and replacement.

13. After 15 years of implementing sediment and nutrient control projects in the watershed and Lakes, current monitoring demonstrates that there have been significant reductions in the load of nutrients discharged to the Lakes, as well as control of the flux of nutrients from the sediments in both Lakes, and Canyon Lake is near compliance with water quality standards. The monitoring also shows that the Interim Load Allocations from 2004, have been met, and the recent modeling shows the reduction in nutrient loads needed to meet the revised TMDLs specified in Attachment A.
14. Federal and State regulations require periodic review of all previously adopted TMDLs. LESJWA, and the TMDL Task Force, have worked closely with Regional Board staff to prepare a report entitled “Draft for Public Review and Peer Review TMDL Technical Report: Revision to the Lake Elsinore and Canyon Lake Nutrient TMDLs, December 1, 2018.” (Draft Revised TMDL Technical Report) This report provides the Regional Board with the recommendations of the TMDL Task Force and Regional Board staff, for updating and revising the Basin Plan, Implementation Plan sections, that contain the 2004 TMDL for Nutrients in Lake Elsinore and Canyon Lake. The Revised TMDL Technical Report provides the required elements for revision, update and replacement of the 2004 TMDL for Nutrients in Lake Elsinore and Canyon Lake, including the Problem Statement, Numeric Targets, Source Analysis, Linkage Analysis, Waste Load Allocations and Load Allocations, Margin of Safety, Implementations Plans and Schedule, and Monitoring Plan. Also included, in accordance with the California Environmental Quality Act (CEQA) is a Draft Environmental Analysis and Substitute Environmental Document (SED) of the project to adopt revisions to the Basin Plan to replace the 2004 TMDL, and an Economic Analysis of the proposed changes to the Basin Plan.
15. The Basin Plan amendment shown in Attachment A to this Resolution was developed in accordance with Clean Water Act Section 303(d) and Water Code Section 13240 *et seq.* The amendment is proposed for incorporation into Chapter 6 “Total Maximum Daily Loads”, of the Basin Plan. The Basin Plan amendment includes background information concerning the water quality impairment being addressed, and the sources of nutrients to Canyon Lake and Lake Elsinore from throughout the Lake Elsinore and San Jacinto River Watersheds. The revised TMDL is supported by the new and updated monitoring data, analysis, and modeling in the

Revised TMDL Technical Report, which provide the scientific evidence to support the changes to the original TMDL. It is appropriate to revise the original TMDL based on the evidence provided in the Revised TMDL Technical Report, in order to address:

- a) symmetric and highly variable precipitation, runoff, nutrient loading, and reference conditions,
- b) revised estimates and modeling of Mystic Lake storage,
- c) dynamic Lake levels,
- d) rapidly changing land use,
- e) site-specific agricultural loadings,
- f) new more detailed and dynamic modeling of the Lakes and watershed,
- g) other regulatory requirements (e.g. CAFO permits, septic regulations, Municipal Separate Stormwater Sewer System (MS4) on-site retention rules, landscape irrigation ordinances),
- h) salinity constraints, and
- i) new information on nutrient decay rates.

16. To ensure compliance with the Water Quality Standards in the Basin Plan, the Basin Plan amendment specifies final Numeric Targets for Lake Elsinore and Canyon Lake for Chlorophyll-a, Ammonia, and Dissolved Oxygen, that are based on best estimates of the natural reference condition for Lake Elsinore and Canyon Lake prior to significant urban and agricultural development in the watershed. These numeric targets provide direct measures of compliance with the narrative water quality objective that requires that waste discharges shall not contribute to excessive algae growth in the receiving waters and provide a method to track improvements in water quality resulting from reduction in the loading of nitrogen and phosphorus.

17. The Basin Plan amendment also specifies revised final TMDLs, waste load allocations for point source discharges (WLA), load allocations for nonpoint source discharges (LA) for total phosphorus and total nitrogen, and Load Reductions Required to meet these TMDLs, for Lake Elsinore, Canyon Lake (Main Body), Canyon Lake (East Bay), and Canyon Lake discharges to Lake Elsinore. The revised WLAs and LAs, which are also based on the revised reference nutrient loadings, will control the discharge of Total Nitrogen and Total Phosphorous discharged to the Lakes in order to meet the revised Numeric Targets and TMDLs.

18. The Basin Plan amendment specifies an implementation plan for nutrient reduction in discharges to the Lakes. The Basin Plan Amendment also includes an implementation plan to control in-Lake sediment nutrient discharges. The implementation plan includes compliance schedules for the Numeric Targets, TMDLs, WLAs, LAs, as well as a monitoring program to track progress toward compliance.

19. The Regional Board continues to support the use of a Regional Board approved water quality trading program, and in-Lake nutrient control projects to reduce nutrient

load from sediment, in order to achieve compliance with the TMDLs, WLAs, LAs, and Numeric Targets more rapidly than relying exclusively on nutrient source controls in the watershed.

20. Additional time is needed to meet the revised TMDLs in Attachment because the load allocations and waste load allocations are more stringent. Attachment A also includes an updated Implementation Plan and Schedule for the revised TMDLs. This plan and schedule require that current nutrient controls be continued and expanded and require that additional nutrient reductions plans and projects be completed within a Compliance Deadline of 10 years after the effective date of the revised TMDLs (i.e. after final approval by USEPA).
21. The revised TMDLs in Attachment A also establishes a new Water Quality Standards Attainment Deadline, for when the Lakes are projected to meet water quality standards based on the revised reference condition for the Lakes, of 20 years after the effective date of the TMDLs. The Basin Plan Amendment recognizes that at least 20-40 years of data may be needed to fully demonstrate compliance with water quality standards, depending on the hydrologic conditions over the next 40 years. In addition, it will take at least 20-40 years to reduce the nitrogen and phosphorous loads from the in-Lake sediments which are the largest single source of nutrients in both Lakes. The TMDLs also require a Compliance Evaluation Report every 5 years to measure progress towards meeting water quality standards and the related TMDL targets.
22. The Basin Plan amendment will assure the reasonable protection of the beneficial uses of surface waters within the Region and is consistent with the state's antidegradation policy (SWRCB Resolution No. 68-16).
23. The Regional Board has considered the costs associated with implementation of this amendment, as well as costs resulting from failure to implement nutrient control measures necessary to prevent adverse effects on beneficial uses. The implementation plan in the Basin Plan, which includes extended compliance schedules and employs a phased TMDL approach to provide for refinement based on additional studies and analyses, will ensure that implementation expenditures are reasonable and apportioned among responsible parties.
24. A CEQA scoping meeting was held on January 16, 2019, at the Elsinore Valley Municipal Water District (EVMWD), to provide interested parties the opportunity to comment on the appropriate scope and content of the Lake Elsinore and Canyon Lake Nutrient TMDLs SED. A notice of the CEQA Scoping meeting was sent to potentially interested and affected parties on December 13, 2018. Comments received at the scoping meeting where appropriate, were addressed in the staff report, SED and proposed TMDLs. The Draft Revised TMDL Technical Report includes a Draft SED for the proposed Basin Plan Amendment, for public comment.

25. In preparing the Lake Elsinore and Canyon Lake Nutrient TMDLs SED, the Santa Ana Water Board has considered the requirements of Public Resources section 21159 and section 15187 of title 14 of the California Code of Regulations and intends this document to serve as a tier one 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. Project level analysis, as necessary, will need to be considered in any subsequent environmental analysis performed by other public agencies, pursuant to Public Resources Code section 21159.2.
26. The Lake Elsinore and Canyon Lake TMDLs SED concludes that there will be no significant potential for adverse effects, either individually or cumulatively, on fish and/or wildlife species. In particular, the revised TMDL acknowledges the importance of encouraging innovative compliance strategies to preserve and enhance aquatic habitat in Lake Elsinore and Canyon Lake. Accordingly, no mitigation measures or alternative to the project are identified.
27. The adoption of these TMDLs is necessary to reduce loadings of nutrients to Lake Elsinore and Canyon Lake, and nutrient loading from sediment in the Lakes, and to address water quality impairments that arise therefrom.
28. The proposed amendment meets the “Necessity” standard of the Administrative Procedure Act, Government Code, Section 11352, subdivision (b).
29. Pursuant to Health and Safety Code Public Resources Code section 57004, the Regional Board submitted the relevant technical documents that serve as the basis for the proposed amendment to an external scientific review panel and has considered the panel’s comments and recommendations of that panel in drafting the amendment.
30. The Regional Board posted a Notice of Availability and Request for Comment, and all related supporting documents on the Regional Board’s Website. The Regional Board considered all comments and prepared written responses to those comments that were submitted by the required deadlines.
31. The Regional Board discussed this matter at a duly noticed public workshop conducted on May 3, 2019, after notice was given to all interested persons in accordance with Section 13244 of the California Water Code. Based on the discussion at those workshops, the Board directed staff to prepare the appropriate Basin Plan amendment and related documentation to incorporate the Revised Lake Elsinore and Canyon Lake Nutrient TMDLs.
32. The Regional Board prepared and distributed written reports (TMDL Revision Technical Report/staff reports) regarding adoption of the Basin Plan amendment in accordance with applicable state and federal environmental regulations (California

Code of Regulations, Section 3775, Title 23, and 40 CFR Parts 25 and 131).

33. The process of basin planning has been certified by the Secretary for Resources as exempt from the requirement of the California Environmental Quality Act (Public Resources Code Section 21000 et seq.) to prepare an Environmental Impact Report or Negative Declaration. The Basin Plan amendment package includes staff reports, an Environmental Checklist, an assessment of the potential environmental impacts of the Basin Plan amendment, and a discussion of alternatives. The Basin Plan amendment, Environmental Checklist, staff reports, and supporting documentation are functionally equivalent to an Environmental Impact Report or Negative Declaration.
34. On **(Insert Date)**, 2019, the Regional Board held a Public Hearing to consider the Basin Plan amendment. Notice of the Public Hearing was given to all interested persons and published in accordance with Water Code Section 13244.
35. The Basin Plan amendment must be submitted for review and approval by the State Water Resources Control Board (SWRCB), Office of Administrative Law (OAL) and U.S. Environmental Protection Agency (USEPA). Once approved by the SWRCB, the amendment is submitted to OAL and USEPA. The Basin Plan amendment will become effective upon approval by OAL and USEPA. A Notice of Decision will be filed.
36. The Notice of Filing, the TMDL Report, environmental checklist, and the draft amendment were prepared and distributed to interested individuals and public agencies for review and comment, in accordance with state and federal regulations (23 CCR §3775, 40 CFR 25 and 40 CFR 131).
37. For the purposes of specifying compliance schedules in NPDES permits for effluent limitations necessary to implement these TMDLs, the schedule(s) specified in these TMDLs shall govern, notwithstanding other compliance schedule authorization language in the Basin Plan. The 2004 TMDLs and the related Comprehensive Nutrient Reduction Plan and the Agriculture Nutrient Management Plan previously approved by the Regional Board remain in effect, and are not stayed, until such time as these revised TMDLs are approved by the State Water Resources Control Board, the Office of Administrative Law and the U.S. Environmental Protection Agency.

NOW, THEREFORE BE IT RESOLVED THAT:

1. The Santa Ana Water Board hereby approves and adopts the CEQA substitute environmental document, identified as the Lake Elsinore and Canyon Lake Nutrient TMDLs SED above.
2. The Regional Board adopts the amendment to the Water Quality Control Plan for the Santa Ana River Basin (Region 8), as set forth in the Attachment A.

3. The Executive Officer is directed to forward copies of the Basin Plan amendment to the SWRCB in accordance with the requirements of section 13245 of the California Water Code.
4. The Regional Board requests that the SWRCB approve the Basin Plan amendment, in accordance with sections 13245 and 13246 of the California Water Code and forward it to the OAL and U.S. EPA for approval.
5. If, during its approval process, the SWRCB or OAL determines that minor, non-substantive corrections to the language of the amendment are needed for clarity or consistency, the Executive Officer may make such changes, and shall inform the Board of any such changes.
6. The Executive Officer is authorized to sign a Certificate of Fee Exemption in lieu of payment of the California Department of Fish and Wildlife filing fee or to take steps to promptly ensure payment of the applicable fee, whichever is appropriate.

I, Hope A. Smythe, 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, Santa Ana Region, on (Insert Date).

Hope A. Smythe
Executive Officer