

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

**RESOLUTION NO. R16-XXX
September 8, 2016**

**Amendment to the Water Quality Control Plan for the Los Angeles Region
to Incorporate a Total Maximum Daily Load for Nutrients for the
Santa Clara River Lakes (Elizabeth Lake, Munz Lake, and Lake Hughes)**

**WHEREAS, the California Regional Water Quality Control Board, Los Angeles
Region, finds that:**

1. The Federal Clean Water Act (CWA) requires the California Regional Water Quality Control Board, Los Angeles Region (Los Angeles Water Board) to establish water quality standards for each waterbody within its region. Water quality standards include beneficial uses, water quality objectives that are established at levels sufficient to protect those beneficial uses, and an antidegradation policy to prevent degrading waters. Waterbodies that do not meet water quality standards are considered impaired.
2. CWA section 303(d)(1) requires each state to identify the waters within its boundaries that do not meet water quality standards. Those waters are placed on the state's "303(d) List" or "Impaired Waters List". For each listed water, the state is required to establish the Total Maximum Daily Load (TMDL) of each pollutant impairing the water quality standards in that waterbody. Both the identification of impaired waters and TMDLs established for those waters must be submitted to the United States Environmental Protection Agency (U.S. EPA) for approval pursuant to CWA section 303(d)(2).
3. The elements of a TMDL are described in 40 CFR 130.2 and 130.7 and section 303(d)(1)(C) and (D) of the CWA, as well as in U.S. EPA guidance documents (Report No. EPA/440/4-91/001). A TMDL is defined as the sum of the individual waste load allocations (WLAs) for point sources, load allocations (LAs) for nonpoint sources and natural background (40 CFR 130.2). TMDLs must be set at levels necessary to attain and maintain the applicable narrative and numeric water quality standards with seasonal variations and a margin of safety that takes into account any lack of knowledge concerning the relationship between effluent limitations and water quality (40 CFR 130.7(c)(1)). 40 CFR 130.7 also dictates that TMDLs shall take into account critical conditions for stream flow, loading and water quality parameters. TMDLs typically include one or more numeric "targets", i.e., numerical translations of the existing water quality standards, which represent attainment of those standards, contemplating the TMDL elements described above. Since a TMDL must represent the "total" load, TMDLs must account for all sources of the relevant pollutants, irrespective of whether the pollutant is discharged to impaired or unimpaired upstream reaches.
4. Neither TMDLs nor their targets or other components are water quality objectives, and thus their establishment does not implicate Water Code section 13241. Rather, under California Law, TMDLs are programs to implement existing standards (including objectives), and are thus established pursuant to Water Code section 13242. Moreover, they do not create new bases for direct enforcement against dischargers apart from the existing water quality standards they translate. Like most other parts of the Water

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Quality Control Plan for the Los Angeles Region (Basin Plan), TMDLs are not generally self-implementing. The targets merely establish the bases through which LAs and WLAs are calculated. The LAs and WLAs may be implemented in any manner consistent with the Water Quality Control Policy for Addressing Impaired Waters: Regulatory Structure and Options, adopted by the State Water Resources Control Board (State Water Board) on June 16, 2005 (Resolution No. 2005-0050). Federal regulations also require that National Pollutant Discharge Elimination System (NPDES) permits be consistent with the assumptions and requirements of available WLAs. (40 CFR § 122.44(d)(vii)(B).)

5. As envisioned by Water Code section 13242, the TMDL contains a "description of surveillance to be undertaken to determine compliance with objectives." The Compliance Monitoring and Special Studies elements of the TMDL recognize monitoring will be necessary to assess the on-going condition of the Santa Clara River Lakes, and to assess the progress of pollutant load reductions and improvements in water quality in the Santa Clara River Lakes. Special studies will provide further information based on additional data to re-evaluate and modify, if appropriate, scientific assumptions. The TMDL establishes the types of data and information that will be necessary to obtain. The Los Angeles Water Board's Executive Officer will ensure that appropriate entities develop and submit monitoring programs and technical reports necessary to achieve the purposes of the TMDL. The Executive Officer will determine the scope of these programs and reports, taking into account any legal requirements, including this TMDL, and if necessary issue appropriate orders to appropriate entities.
6. Upon establishment of TMDLs by the State or U.S. EPA, the State is required to incorporate the TMDLs into the State Water Quality Management Plan (40 CFR 130.6(c)(1), 130.7). The Basin Plan and applicable statewide plans serve as the State Water Quality Management Plans governing the watersheds under the jurisdiction of the Los Angeles Water Board. Attachment A to this resolution contains the language to be incorporated into the Basin Plan for this TMDL.
7. The Santa Clara River Lakes (Elizabeth Lake, Munz Lake, and Lake Hughes) are located in the Santa Clara River watershed. Elizabeth Lake is surrounded by the unincorporated town of Elizabeth Lake. The eastern half of the lake and a portion of the western half is private property, while the remainder of the western shore is encompassed by the U.S. Forest Service (USFS) within the Angeles National Forest. The primary water source for Elizabeth Lake is rainfall and runoff from surrounding areas. During the wet season, water can flow westward from Elizabeth Lake to Munz Lake, although this occurs infrequently. Munz Lake is a privately owned, man-made lake which hosts The Painted Turtle, a camp for children with serious and/or terminal illnesses. The lake is about 6.5 acres in size, and irregularly shaped. Munz Lake discharges to Lake Hughes at its west end during overflow periods. Lake Hughes is surrounded by the incorporated community of Lake Hughes, and has a surface area of 21.4 acres. Lake Hughes is surrounded by private homes with direct backyard access to the lake on the north and southwestern shores, while the rest of the lake edges are vegetated. A sewer system was installed in 1990 around Lake Hughes to help address pollution associated with onsite wastewater treatment systems in the area. Lake Hughes is fed partially by groundwater, rainfall and runoff, and infrequent overflow water from Munz and Elizabeth Lake. Elizabeth Lake was initially listed on the 1996 Federal Clean Water Act Section 303(d) List (303(d) list) for eutrophic conditions, pH, and low dissolved oxygen. On the 1998 303(d) list, it was also listed for organic

enrichment. Munz Lake was initially listed on the 1996 303(d) list for eutrophic conditions. Lake Hughes was initially listed on the 1996 303(d) list for algae, eutrophic conditions, fish kills, and odor.

8. Eutrophication is increased nutrient loading to a waterbody and the resulting increased growth of biota, phytoplankton and other aquatic plants. Phosphorus and nitrogen are key nutrients for phytoplankton growth in lakes and are often responsible for the eutrophication of surface waters. The increased nutrient loading is generally from two sources, external loading (discharges into the lake) and internal loading (recycling of nutrients within the lake). There are many biological responses to nutrients (nitrogen and phosphorus) in lakes. The biologically available nutrients and light will stimulate phytoplankton and or macrophyte growth. As these plants grow, they provide food and habitat for other organisms such as zooplankton and fish. Plant growth can lead to increased pH in the lake due to rapid consumption of carbon dioxide. When the aquatic plants die they will release nutrients (ammonia and phosphorus) back into the water through decomposition. The decomposition of plant material consumes oxygen from the water column. Low dissolved oxygen levels can be stressful for fish and other organisms and may lead to fish kills. In addition, the recycled nutrients are available to stimulate additional plant growth. Physical properties such as light, temperature and wind mixing also play integral roles throughout the pathways described.
9. The Los Angeles Water Board's goal in establishing the nutrients TMDL for the Santa Clara River Lakes is to protect water contact recreation (REC1), non-contact water recreation (REC2), warm freshwater habitat (WARM), and wildlife habitat (WILD) beneficial uses of all three Santa Clara River Lakes. In addition, the TMDL will also protect the rare/threatened/endangered species (RARE) beneficial use of Elizabeth Lake, and the groundwater recharge (GWR) beneficial use of Munz Lake.
10. Los Angeles Water Board staff has prepared a detailed technical document that analyzes and describes the specific necessity and rationale for the development of this TMDL. The technical document entitled "Total Maximum Daily Load for Nutrients in Elizabeth Lake, Munz Lake, and Lake Hughes in the Santa Clara River Watershed" is an integral part of this Los Angeles Water Board action. In addition, Los Angeles Water Board staff worked with U.S. EPA and Tetra Tech to develop a document entitled "Nutrient TMDL Support for Santa Clara River Watershed Lakes: Elizabeth Lake, Munz Lake, and Lake Hughes." These technical documents provide the detailed factual basis and analysis supporting the problem statement, numeric targets (interpretation of the narrative and numeric water quality objectives used to calculate the waste load and load allocations), source analysis, linkage analysis, waste load allocations (for point sources), load allocations (for nonpoint sources), margin of safety, and seasonal variations and critical conditions of this TMDL.
11. On September 8, 2016, prior to the Los Angeles Water Board's action on this resolution, a public hearing was conducted on this TMDL. Notice of the hearing was published in accordance with the requirements of Water Code section 13244. This notice was published in the Santa Clarita Valley Signal and the Antelope Valley Press on June 21, 2016.
12. The public has had a reasonable opportunity to participate in the review of this TMDL. A draft of the TMDL was released for public comment on June 21, 2016, a Notice of Hearing was published and circulated 45 days preceding Los Angeles Water Board

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action. The draft of the TMDL was also made available on the Los Angeles Water Board's website. Los Angeles Water Board staff responded to oral and written comments received from the public; and the Los Angeles Water Board held a public hearing on September 8, 2016 to consider adoption of the TMDL.

13. In amending the Basin Plan to establish this TMDL, the Los Angeles Water Board considered the requirements set forth in Water Code sections 13240 and 13242.
14. Because the TMDL implements existing narrative and numeric water quality objectives (i.e., water quality objectives in the Basin Plan), the Los Angeles Water Board (along with the State Board) has determined that adopting a TMDL does not require the Los Angeles Water Board to consider the factors of Water Code section 13241. The consideration of the Water Code section 13241 factors, by section 13241's express terms, only applies "in establishing water quality objectives." Here, the Los Angeles Water Board is not establishing water quality objectives, but as required by section 303(d)(1)(C) of the Clean Water Act is adopting a TMDL that will implement the previously established objectives that have not been achieved. In making this determination, the Los Angeles Water Board has considered and relied upon a legal memorandum from the Office of Chief Counsel to the State Water Board's basin planning staff detailing why TMDLs cannot be considered water quality objectives. (See Memorandum from Staff Counsel Michael J. Levy, Office of Chief Counsel, to Ken Harris and Paul Lillebo, Division of Water Quality, *The Distinction Between a TMDL's Numeric Targets and Water Quality Standards*, dated June 12, 2002.)
15. While the Los Angeles Water Board is not required to consider the factors of Water Code section 13241, it nonetheless has developed and received significant information pertaining to the Water Code section 13241 factors and has considered that information in developing and adopting this TMDL. Water Code section 13241, at a minimum, requires that water quality objectives ensure reasonable protection of beneficial uses. The designated beneficial uses of the Santa Clara River Lakes include water contact recreation (REC1), non-contact water recreation (REC2), warm freshwater habitat (WARM), and wildlife habitat (WILD). In addition, Elizabeth Lake has a beneficial use of rare/threatened/endangered species (RARE), and Munz Lake has a beneficial use of groundwater recharge (GWR).. The past, present and probable future beneficial uses of water have been considered in that the Santa Clara River Lakes are designated for a number of beneficial uses in the Basin Plan.
16. The environmental characteristics of the watershed are spelled out at length in the Basin Plan and in the technical documents supporting this Basin Plan amendment, and have been considered in developing this TMDL. Water quality conditions that reasonably could be achieved through the coordinated control of all factors that affect water quality in the area have been considered. This TMDL provides several compliance options, including improved nitrification-denitrification at the Lake Hughes wastewater treatment facility, hydraulic or traditional dredging of the lakes, structural best management practices (BMPs) such as vegetated swales, filter strips, shoreline buffering, infiltration basins, and catch basin inserts, as well as non-structural BMPs and alternatives such as source reduction BMPs and inspection and proper servicing of onsite waste treatment systems. These options provide flexibility for responsible entities to reduce nutrient loading to the Santa Clara River Lakes. Attainment of the water quality standards through the compliance options is a reasonably achievable water quality condition for the lakes. However, to the extent that there would be any

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conflict between the consideration of the factor in California Water Code section 13241(c), if the consideration were required, and the Clean Water Act, the Clean Water Act would prevail.

17. Economic considerations were considered throughout the development of the TMDL. Some of these economic considerations arise in the context of Public Resources Code section 21159 and are equally applicable here. The implementation program for this TMDL recognizes the economic limitations on achieving immediate compliance and allows a flexible implementation schedule of 12 to 15 years to meet the WLAs and LAs, depending on the source. The need for housing within the region has been considered, but this TMDL is unlikely to affect housing needs. Whatever housing impacts could materialize are ameliorated by the flexible nature of this TMDL and the 12 to 15-year implementation schedule.
18. The amendment is consistent with the State Antidegradation Policy (State Board Resolution No. 68-16), and the federal Antidegradation Policy (40 CFR § 131.12), in that it does not allow degradation of water quality, but requires restoration of water quality and attainment of water quality standards.
19. Pursuant to Public Resources Code section 21080.5, the Resources Agency has approved the Los Angeles Water Boards' basin planning process as a "certified regulatory program" that adequately satisfies the California Environmental Quality Act (CEQA) (Public Resources Code, § 21000 et seq.) requirements for preparing environmental documents. (Cal. Code Regs., tit. 14, § 15251, subd. (g); Cal. Code Regs., tit. 23, § 3782.) The Los Angeles Water Board staff has prepared "substitute environmental documents" for this project that contain the required environmental documentation under the State Board's CEQA regulations. (Cal. Code Regs., tit. 23, §§ 3775-3781.) The project itself is the establishment of a TMDL for nutrients in the Santa Clara River Lakes. While the Los Angeles Water Board has no discretion to not establish a TMDL (the TMDL is required by federal law), the Board does exercise discretion in assigning WLAs and LAs, 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.
20. A CEQA Scoping meeting was conducted on February 24, 2016 at the Los Angeles Regional Water Quality Control Board office located at 320 W. 4th Street, Suite 200, Los Angeles, California, to receive input from stakeholders regarding reasonably foreseeable methods of compliance, reasonably foreseeable environmental impacts of the methods of compliance, reasonably foreseeable mitigation measures, reasonably foreseeable alternative means of compliance, and alternatives to the project. This meeting fulfilled the requirements under CEQA. (Pub. Resources Code § 21083.9; Cal. Code Regs., tit. 23, § 3775.5). A notice of the CEQA Scoping hearing was sent to interested parties on February 12, 2016.
21. In preparing the substitute environmental documents, the Los Angeles Water Board has considered the requirements of Public Resources Code section 21159 and section 15187 of Title 14 of the California Code of Regulations, 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

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perspective. The “Lead” agencies for tier 2 projects will assure compliance with project-level CEQA analysis of this programmatic project. Project level impacts will need to be considered in any subsequent environmental analysis performed by other public agencies, pursuant to Public Resources Code section 21159.2.

22. The reasonably foreseeable methods of compliance for this TMDL include improved nitrogen removal, such as nitrification-denitrification at the Lake Hughes wastewater treatment facility, hydraulic or traditional dredging of the lakes, structural BMPs such as vegetated swales, filter strips, shoreline buffering, infiltration basins, and catch basin inserts, as well as non-structural BMPs and alternatives such as source reduction BMPs and inspection and proper servicing of onsite waste treatment systems.
23. Consistent with the Los Angeles Water Board’s substantive obligations under CEQA, the substitute environmental documents do not engage in speculation or conjecture. The substitute environmental documents only consider the reasonably foreseeable environmental impacts, including those relating to the reasonably foreseeable methods of compliance, reasonably foreseeable feasible mitigation measures to reduce those impacts, and the reasonably foreseeable alternative means of compliance, which would avoid or reduce the identified impacts.
24. The proposed Basin Plan amendment could have a potentially significant adverse effect on the environment. However, there are feasible alternatives, feasible mitigation measures, or both, that if employed, would substantially lessen the potentially significant adverse impacts identified in the substitute environmental documents. Such alternatives or mitigation measures are within the responsibility and jurisdiction of other public agencies, and not the Los Angeles Water Board. Water Code section 13360 generally precludes the Los Angeles Water Board from specifying the design, location, type of construction, or particular manner in which responsible parties comply with Los Angeles Water Board orders. When the entities responsible for implementing this TMDL determine how they will proceed, the entities responsible for those parts of the project can and should incorporate such alternatives and mitigation into any subsequent projects or project approvals. These feasible alternatives and mitigation measures are described in more detail elsewhere in the substitute environmental documents. (Cal. Code Regs., tit. 14, § 15091, subd. (a)(2).)
25. The substitute environmental documents for this TMDL, and in particular the Environmental Checklist and staff’s responses to comments, identify broad mitigation approaches that should be considered at the project level.
26. The Los Angeles Water Board has balanced the economic, legal, social, technological, and other benefits of the TMDL against the unavoidable environmental risks and finds that specific economic, legal, social, technological, and other benefits of the TMDL outweigh the unavoidable adverse environmental effects, such that those effects are considered acceptable. The basis for this finding is set forth in the substitute environmental documents. (Cal. Code Regs., tit. 14, § 15093.)
27. Health and Safety Code section 57004 requires external scientific peer review for certain water quality control policies. Scientific portions of this TMDL are drawn from the previously adopted nutrient TMDLs in the region, including the Machado Lake Nutrient TMDL adopted on May 1, 2008. As a result, the scientific portions of this TMDL have already undergone external, scientific peer review. Remaining portions of

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the TMDL, such as the implementation strategy, are not scientifically based, and therefore, not subject to the peer review requirements of Health and Safety Code section 57004. As a result, the Los Angeles Water Board has fulfilled the requirements of Health and Safety Code section 57004, and the proposed amendment does not require further peer review.

28. The regulatory action meets the “Necessity” standard of the Administrative Procedures Act. (Gov. Code, § 11353, subd. (b).) As specified above, federal law and regulations require that TMDLs be incorporated, or referenced, in the state’s water quality management plan. The Los Angeles Water Board’s Basin Plan is the Los Angeles Water Board’s component of the water quality management plan, and the Basin Plan is how the Los Angeles 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 Water Code section 13242. The necessity of developing a TMDL is established in the TMDL staff report and accompanying Tetra Tech report, the section 303(d) list, and the data contained in the administrative record documenting the nutrient impairments in the Santa Clara River Lakes.
29. The Basin Plan amendment incorporating a TMDL and implementation schedule for nutrients in the Santa Clara River Lakes must be submitted for review and approval by the State Board, the State Office of Administrative Law (OAL), and pursuant to CWA section 303(d) and/or 303(c) (as appropriate) by the U.S. EPA. The Basin Plan amendment will become effective upon approval by U.S. EPA. Once effective, a Notice of Decision will be filed with the Resources Agency.
30. If during the State Board’s approval process, Los Angeles Water Board staff, the State Board or State Board staff, or OAL determine that minor, non-substantive modifications to the language of the amendment are needed for clarity or consistency, the Executive Officer should make such changes consistent with the Los Angeles Water Board’s intent in adopting this TMDL, and should inform the Los Angeles Water Board of any such changes.
31. Considering the record as a whole, this Basin Plan amendment is expected to result in an effect, either individually or cumulatively, on wildlife resources.

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

1. The Los Angeles Water Board hereby approves and adopts the CEQA substitute environmental documentation, which was prepared in accordance with Public Resources Code section 21159 and California Code of Regulations, title 14, section 15187, and directs the Executive Officer to sign the environmental checklist.
2. Pursuant to Water Code sections 13240 and 13242, the Los Angeles Water Board, after considering the entire record, including oral testimony at the hearing, hereby adopts the amendments to Chapter 7 of the Water Quality Control Plan for the Los Angeles Region, as set forth in Attachment A hereto, to incorporate the elements and implementation schedule of the Santa Clara River Lakes Nutrients TMDL.
3. The Executive Officer is directed to forward copies of the Basin Plan amendment to the State Board in accordance with the requirements of Water Code section 13245.
4. The Los Angeles Water Board requests that the State Board approve the Basin Plan amendment in accordance with the requirements of Water Code sections 13245 and 13246 and forward it to OAL for review and approval and finally, for review and approval pursuant to CWA sections 303(d) and/or 303(c), as appropriate, to the U.S. EPA.
5. If during the State Board's approval process, Los Angeles Water Board staff, the State Board or OAL determines that minor, non-substantive modifications to the language of the amendment are needed for clarity or consistency, the Executive Officer may make such changes, and shall inform the Board of any such changes.
6. The Executive Officer is authorized to request a "No Effect Determination" from the California Department of Fish and Wildlife, or transmit payment of the applicable fee as may be required to the California Department of Fish and Wildlife.

I, Samuel Unger, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a resolution adopted by the California Regional Water Quality Control Board, Los Angeles Region, on September 8, 2016.

Samuel Unger, P.E.
Executive Officer

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