

Santa Ana Regional Water Quality Control Board

Triennial Review High-Priority List Project Descriptions Fiscal Years 2024-2027

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INTRODUCTION

The [Santa Ana Region](#) encompasses parts of southwestern San Bernardino County, western Riverside County, and northwestern Orange County. The [Water Quality Control Plan for the Santa Ana River Basin](#) (Basin Plan) contains the basis for the Santa Ana Region’s regulatory programs. Additionally, the Basin Plan prescribes water quality standards for surface and ground water in the region. Water quality standards as used in the federal Clean Water Act (CWA), includes both the beneficial uses of specific waterbodies and the levels of water quality that must be met and maintained to protect those uses. The Basin Plan includes an implementation plan describing the actions by the Santa Ana Regional Water Quality Control Board (Santa Ana Water Board), and others that are necessary to achieve and maintain the water quality standards and protect designated beneficial uses.

The Porter-Cologne Water Quality Control Act (California Water Code section 13240) and the CWA both mandate the periodic review of basin plans and the water quality standards contained therein. Section 303(c)(1) of the CWA requires that a state review its water quality standards and, as appropriate, modify and adopt standards at least once every three years, hence the term “triennial review.” The purpose of the review is to identify necessary updates and revisions to water quality standards and other regulatory elements of the Basin Plan. Updates and revisions may be necessary due to changes in law, regulation, or policies, new/revised water quality criteria, updated science, or physical changes in the region, to name a few. The triennial review assists in identifying potential priority issues to address through subsequent Basin Plan amendment projects. These Basin Plan amendment projects are referred to as the Triennial Review High-Priority List.

The Triennial High Review High-Priority List provides prioritization informed by multiple factors, including but not limited to Santa Ana Water Board’s stated priorities, stakeholder input, and anticipated project completion. This document describes the triennial review priority projects for consideration during the current triennial review period for fiscal years 2024-2027.

TRIENNIAL REVIEW HIGH-PRIORITY LIST PROJECT DESCRIPTIONS

Project 1: Complete the Copper Total Maximum Daily Loads for Newport Bay

In June 2002, the U.S. EPA promulgated total maximum daily loads (TMDLs) for Toxic Pollutants in San Diego Creek and Newport Bay. In 2010, under Clean Water Act Section 303(d), San Diego Creek was delisted for metals, but Upper and Lower Newport Bay remain listed for copper. Based on USEPA's TMDL findings, with which Santa Ana Water Board staff agree, copper boat paints and tributary runoff are the major sources of dissolved copper to Newport Bay.

On December 2, 2022, the Santa Ana Regional Water Quality Control Board (Santa Ana Water Board) approved a Basin Plan amendment for the Copper TMDLs for Upper and Lower Newport Bay. During the triennial review period, Santa Ana Water Board staff will present the Copper TMDLs to the State Water Resources Control Board (State Water Board) for approval. Once approved by the State Water Board, the administrative record will be transmitted to the Office of Administrative Law (OAL) and the USEPA for approval. After the Basin Plan amendment is fully approved, it will establish TMDLs for dissolved copper in Newport Bay. The amendment includes an implementation plan and interim and final compliance schedules to achieve the TMDLs and assure that water quality standards will be achieved and protected. The principal focus of these TMDLs is the reduction of copper discharges from copper anti-fouling paints on boats in Newport Bay. The TMDLs include requirements for monitoring and evaluation, including sediment conditions in Newport Bay.

The goal of the TMDLs is to attain water quality standards and protect the beneficial uses of Newport Bay, including aquatic habitats, fishing, and recreation. Newport Bay offers many recreational activities, such as swimming, fishing, and aesthetic enjoyment of the area. The dissolved copper concentrations are toxic to aquatic life. Reducing dissolved copper concentrations to safe levels will benefit the marine ecosystem of Newport Bay.

Project 2: Complete a Basin Plan Amendment to Revise the Lake Elsinore and Canyon Lake Nutrient Total Maximum Daily Loads

On December 20, 2004, the Santa Ana Water Board adopted TMDLs for Lake Elsinore and Canyon Lake for nutrient impairments. In 2015, the Lake Elsinore and San Jacinto Watersheds Authority petitioned the Santa Ana Water Board to reopen and revise the TMDLs due to new information such as changes in the watershed from development and improved water quality models. Santa Ana Water Board staff agreed, and the Lake Elsinore Canyon Lake Task Force is providing technical and financial support towards this effort. Revision of the TMDLs is necessary due to the following:

- Changes in the characteristics of the watershed caused by urban and industrial development and a re-evaluation of allocations based on changes in land use;

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- New water quality regulations, such as new on-site requirements for new urban development or redevelopment for compliance with the National Pollutant Discharge Elimination System; and
- Improved water quality models that incorporate data gathered since 2004, including the physical reconfiguration of Lake Elsinore.

Since 2015, Santa Ana Water Board staff have worked collaboratively with the Lake Elsinore Canyon Lake Task Force to revise the TMDLs and relevant Basin Plan amendment technical documents. A final draft of the revised TMDLs technical report was released in 2018. In October 2019, the draft TMDLs technical report was submitted for external scientific peer review. The peer reviewer comments indicated additional information was needed, including an uncertainty analysis for the predictive models used and determination if certain assumptions used in the modeling were appropriate. The Lake Elsinore and Canyon Lake Task Force assisted with the response to peer review comments, provided Santa Ana Water Board staff draft responses to review in March 2020, and provided technical support to further revise the TMDLs technical report. It is anticipated that the revised Basin Plan amendment will be proposed to the Santa Ana Water Board for adoption in December of 2024. The Basin Plan amendment will also require approval by the State Water Board, OAL, and USEPA.

The Basin Plan amendment to revise nutrient TMDLs for Lake Elsinore and Canyon Lake is intended to improve water quality and protect the beneficial uses of both lakes, particularly water contact recreation, non-water contact recreation, and warm water ecosystems. Additionally, improving the beneficial uses of Lake Elsinore will benefit the residents of the area, especially those disadvantaged communities located near Lake Elsinore.

Project 3: Complete a Basin Plan Amendment for the Wet Winter Conditions Compliance Date Extension for the Middle Santa Ana River Watershed Total Maximum Daily Loads

During storm events, the Middle Santa Ana River (MSAR) receives runoff from urban, agricultural, and undeveloped open space areas, and wet weather conditions cause spikes in fecal indicator bacteria concentrations. The MSAR was listed as impaired due to violations of the Basin Plan's fecal coliform bacteria objectives associated with the water contact recreation beneficial use (REC1).¹ On August 26, 2005, TMDLs for indicator bacteria were adopted for the MSAR Watershed through Resolution R8-2005-0001. The TMDLs have a wet weather (November 1 through March 31) compliance date of December 31, 2025. Despite efforts by the MSAR TMDL Task Force members to improve water quality, wet winter conditions compliance has not been met.

¹ *E. coli* is now the fecal indicator bacteria used for the TMDLs objective as a result of USEPA approval of Order R8-2012-0001, the Recreational Standards Basin Plan amendment, in April 2015.

The MSAR TMDL Task Force proposes to extend the wet winter conditions interim and final compliance dates for a period of 20 years justified by the MSAR Task Force, including a tentative reopener clause at the end of 10th year of the TMDLs adoption date to evaluate implementation of specified tasks and compliance schedule. The MSAR TMDL Task Force has stated that the extension is required to develop the necessary strategies to meet the wet winter conditions compliance targets. Santa Ana Water Board staff anticipate that the Basin Plan amendment tentatively considered for adoption by the Santa Ana Water Board in 2025. The Basin Plan amendment will also require approval by the State Water Board, OAL, and USEPA.

The MSAR is a popular recreation area for local residents, many of whom reside in disadvantaged communities. Additionally, there is a large population of unhoused people living along the MSAR.

Project 4: Consider Separating the Shellfish Harvesting and Water Contact Recreation Uses from the Newport Bay Fecal Coliform Total Maximum Daily Loads

Indicator bacteria concentrations in Newport Bay are used to indicate the presence of fecal pathogenic bacteria and viruses. These pathogens pose potential health risks to recreational users and shellfish harvesters. The fecal bacterial contamination of the waters of Newport Bay directly affects two designated beneficial uses: water contact recreation (REC1) and shellfish harvesting (SHEL). In 1999, the Santa Ana Water Board adopted the Fecal Coliform TMDLs for Newport Bay. A prioritized, phased approach to control pathogen indicator bacterial quality in Newport Bay is specified in the TMDLs; this approach was deemed appropriate, given the paucity of relevant data on bacterial sources and fate, the expected difficulties in identifying and implementing appropriate control measures, and uncertainty regarding the nature and attainability of the SHEL use.

Newport Bay still exceeds REC1 and SHEL objectives and is currently listed on the CWA 303 (d) list as impaired due to exceedances of the (fecal) indicator bacteria. In addition, Orange County Health Care Agency (OCHCA) conducts weekly sampling throughout Newport Bay for indicator bacteria as required by Assembly Bill 411. OCHCA sampling results show regular exceedances of indicator bacteria objectives throughout Newport Bay.

This triennial review project will consider separating the SHEL and REC1 beneficial use sections from the current Newport Bay Fecal Coliform TMDLs, resulting in a SHEL TMDL and REC1 TMDL for Newport Bay.

The REC1 TMDL fecal coliform numeric target is the geometric mean of less than 200 coliform organisms per 100 milliliters (mL) of water based on five or more samples in a 30-day period, and no more than 10 percent of samples exceeding 400 coliform organisms per 100 mL in any 30-day period. The SHEL TMDL fecal coliform numeric target is a median concentration of not more than 14 MPN (most probable number) per 100 mL, and not more than 10 percent of samples exceed 43 MPN per 100 mL. The

State Water Board’s adopted bacteria provisions, which revised the fecal indicator bacteria and monitoring procedures for the REC1 use for enclosed bays and estuaries. As a result, the Newport Bay REC1 TMDL would likely incorporate different monitoring schedules and use enterococcus as the fecal indicator bacteria rather than fecal coliform. For the SHEL TMDL, a site-specific objective will be considered (see Project No. 10).

The Orange County TMDL Funding Partners, which includes Orange County Public Works will provide assistance in completing this project. In addition, other stakeholders including the general public, residents, and environmental groups will likely be involved in the Project.

Newport Bay is a popular location for water contact recreation activities, including individuals from disadvantaged communities. In addition, there is a potential for recreational shellfish harvesting in the Bay.

Project 5: Complete a Basin Plan Amendment to Incorporate all Statewide Objectives and other Statewide Plans and Policies

This Basin Plan amendment project includes several updates to the Basin Plan to include approved statewide objectives, plans, and policies including the following:

- A. Mercury. On May 2, 2017, the State Water Board adopted Resolution No. 2017-0027, which adopted [Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions](#) (Provisions). The Provisions establish mercury water quality objectives that are implemented through regional water board actions. Additionally, the Provisions established three new beneficial uses: Tribal Tradition and Culture, Tribal Subsistence Fishing, and Subsistence Fishing.
- B. Bacteria. On August 7, 2018, the State Water Board adopted Resolution 2018-0038, which includes statewide bacteria water quality objectives for REC1 beneficial use. The Resolution adopts the Bacteria Provisions, which are specifically titled [“Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California—Bacteria Provisions and a Water Quality Standards Variance Policy.”](#)
- C. Dredge and Fill. On April 2, 2019, the State Water Board adopted Resolution 2019-0015, which defines wetlands and delineation procedures for wetlands that are Waters of the State but not Waters of the U.S. so that Water Boards’ regulation of dredge or fill activities will “ensure no overall net loss and long-term net gain in the quantity, quality, and permanence of wetlands.” The Resolution adopts the Procedures, which are specifically titled, [“State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State.”](#)

- D. Trash. On April 7, 2015, the State Water Board adopted Resolution 2015-0019 which prescribes provisions limiting the amount of trash that may be present in waterbodies. The Resolution adopts the Trash Provisions, specifically titled “[Part I Trash Provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California.](#)”
- E. Toxicity. On December 1, 2020, and October 5, 2021, the State Water Board adopted Resolution 2020-0044 and 2021-0044, which provides protection of aquatic life in all inland surface waters, enclosed bays, and estuaries from the effects of toxicity. The Resolutions adopt a statewide policy for water quality control for all inland surface waters, enclosed bays, estuaries, and coastal lagoons of the state, titled [State Policy for Water Quality Control: Toxicity Provisions.](#)”
- F. Racial Equity. Consistent with the Santa Ana Water Board’s Racial Equity [Resolution R8-2024-0029](#), Chapter 1 of the Basin Plan will be updated to acknowledge the historical and territories/presence of Native American Tribes in the Santa Ana Region, and the significance of the region’s waters for tribal use and traditions.

In addition to the above updates to conform to statewide and Santa Ana Water Board plans, policies, and resolutions, proposed updates to the Basin Plan will make editorial non-regulatory changes that clarify, update, or eliminate outdated paragraphs, tables, figures, references, and correct other minor errors. Although this project does not propose regulatory changes to the Basin Plan, the amendment will still require approval by the State Water Board and OAL.

[Project 6: Complete a Basin Plan Amendment to Revise and Clarify the Compliance with Salinity Objectives for Santa Ana River Reaches and Update the Frequency of Ambient Water Computation for Groundwater Management Zones with Maximum Benefit Program](#)

The Basin Monitoring Program Task Force has proposed a Basin Plan amendment to clarify compliance language with the Santa Ana River Reaches 2, 3, 4, and 5 salinity objectives. The clarification language will be incorporated into the Compliance with Objectives section in Chapter 4. The Basin Plan clarifications include: 1) explaining the 60-month volume-weighted average for Reach 2 of the Santa Ana River, 2) revising the definition of baseflow condition for Santa Ana River Reach 3 and the applicability of the salinity objectives, 3) adding language that the mineral objectives in Table 4-1 are flow-weighted annual averages, and 4) other clarifications regarding monitoring guidance for surface flow along the Santa Ana River. The Basin Plan amendment would also clarify the frequency for determining the ambient total dissolved solids (TDS) and nitrogen concentrations for the Elsinore Groundwater Management Zone Maximum Benefit (GMZ) and other GMZs with approved Maximum Benefit salt and nutrient management programs in Chapter 5. Lastly, the descriptions of the Santa Ana Region’s brine lines

and groundwater desalters will be updated with available new information.

The Basin Monitoring Program Task Force is assisting Santa Ana Water Board staff in the completion of this project. It is anticipated that the Basin Plan amendment would be considered for adoption by the Santa Ana Water Board in December 2024.

Project 7: Update the Total Dissolved Solids/Nitrogen Salt Management Plan for the Chino Basin Groundwater Management Zones

This priority project includes a proposed Basin Plan amendment to revise the Chino Basin Maximum Benefit Salt Nutrient Management Plan (SNMP) implementation program for the Inland Empire Utility Agency (IEUA) and Chino Basin Watermaster. The BPA includes:

1. Modifying the IEUA and the Chino Basin Watermaster compliance metrics for recycled water use and artificial recharge;
2. Enabling other (non-IEUA) recycled water supplies to be used in Chino-North groundwater management zone to expand recycled water use;
3. Adding Jurupa Community Services District as a responsible agency in implementing the Chino Basin Maximum Benefit Program, in addition to the Chino Basin Watermaster and the IEUA, and
4. Updating the commitments defined for the Chino Basin Maximum Benefit SNMP to support proposed changes in items 1 through 3.

Keeping the Salt Management Plan updates helps to maintain a safe and reliable drinking water supply for this area of the region. Santa Ana Water Board staff will receive assistance from the IEUA and the Chino Basin Watermaster in completing this project. It is anticipated that the revised Basin Plan amendment will be proposed to the Santa Ana Water Board for adoption in October of 2025.

Project 8: Consider Designation of the Commercial and Sport Fishing Beneficial Use

Several waters in the Santa Ana Region, such as but not limited to: Irvine Lake, Anaheim Lake, Lake Fulmor, Santa Ana River Reach 6, Bear Creek, Middle Fork of Lytle Creek, and San Jacinto River Reach 7 are potentially used for recreational fishing but are not designated for the commercial and sport fishing (COMM) beneficial use.

During this 2024-2027 triennial review period, Santa Ana Water Board staff will investigate the appropriateness of designating the COMM beneficial use for regional fishing waters. Designating these waters with the COMM beneficial use would clarify that water quality objectives associated with the COMM beneficial use apply to these waters.

Designating COMM to recreational inland fishing waters will assist Santa Ana Water Board staff in addressing pollutants that could potentially impact recreational fishing.

Project 9: Consider Designation of the Tribal Tradition and Culture and Tribal Subsistence Fishing Beneficial Uses

On May 2, 2017, the State Water Board adopted Resolution No. 2017-0027 and Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California – Tribal Subsistence Fishing Beneficial Uses and Mercury Provisions. The Provisions established tribal beneficial uses.

Tribal Tradition and Culture (CUL) – Uses of water that support the cultural, spiritual, ceremonial, or traditional rights or lifeways of California Native American Tribes, including, but not limited to: navigation, ceremonies, or fishing, gathering, or consumption of natural aquatic resources, including fish, shellfish, vegetation, and materials.

Tribal Subsistence Fishing (T-SUB) – Uses of water involving the non-commercial catching or gathering of natural aquatic resources, including fish and shellfish, for consumption by individuals, households, or communities of California Native American Tribes to meet needs for sustenance.

During this 2024-2027 triennial review period, Santa Ana Water Board staff will work collaboratively with interested California Native Tribes to designate certain Santa Ana Region waters with the CUL and T-SUB beneficial uses. If certain Santa Ana Region Waters are identified to have the CUL and or T-SUB uses, Santa Ana Water Board staff will develop proposed Basin Plan amendments for consideration by the Board to designate these uses.

Project 10: Consider Reinstating the Minimum Lot Size Requirements for New Developments Using On-Site Septic Tank-Subsurface Leaching/Percolation Systems

Studies conducted by the Santa Ana Water Board² have shown that the use of high-density septic tank-subsurface leaching/percolation (disposal) systems is likely to add to the nitrate problems in the groundwater. Santa Ana Water Board Resolution 93-40 (approved by [State Water Board Resolution 93-95](#)) required a minimum lot size of one-half acre per dwelling unit for new developments using on-site septic tank-subsurface leaching/percolation systems (septic systems). Staff considered this requirement as being effective in minimizing adverse impacts to groundwater quality from septic systems.

The State Water Board's 2012 Onsite Wastewater Treatment System Policy (OWTS Policy) superseded and eliminated the minimum lot size requirements for septic systems on May 13, 2018. Since the elimination of the minimum lot size requirements,

²CRWQCB, SAR 1989, "A Review of the Nitrate Problems in the Ground Waters of the Santa Ana Region and Their Relationship to High Density Developments on Septic Tank-Subsurface Disposal Systems"

Santa Ana Water Board staff have noted an increase in high-density development use of septic systems in certain areas of the region. There is a high level of concern that groundwater quality may be threatened by the increased use of septic systems.

The Basin Plan amendment will revise the description of minimum lot size requirements in Chapter 5, reinsert the one-half acre minimum lot size requirement, and revise exemption criteria for new developments.

Over the past several years, installations of new septic systems in the Santa Ana Region have been primarily in areas of small lot size and in disadvantaged communities. Residents have the right to safe, clean, and affordable water as specified in the State's Human Right to Water Policy.

The Wastewater Section of the Santa Ana Water Board will assist the Regional Planning Programs Section Boards in investigating and if appropriate completing a Basin Plan amendment for this project.

Project 11: Consider a Site-Specific Objective for Shellfish Harvesting in Newport Bay

As part of the Triennial Review High-Priority List Project 4 (please see above), Santa Ana Water Board staff will consider the appropriateness of separating the REC1 and SHEL beneficial uses from the current Newport Bay Fecal TMDLs. A dedicated shellfish harvesting TMDL would facilitate efforts to develop a site-specific objective for Newport Bay. Regardless of whether the SHEL and REC1 uses are separated as part of the TMDLs, Santa Ana Water Board staff will still consider developing a site-specific objective for the SHEL beneficial use. A SHEL site-specific objective may be more appropriate than the current fecal coliform objective. As part of developing a site-specific objective, Santa Ana Water Board staff may consider the use of a different indicator other than fecal coliform.

There is statewide interest in considering revised objectives for recreational shellfish harvesting. Currently, Southern California Coastal Water Research Project is conducting studies to support a site-specific objective for SHEL in Newport Bay. It is likely that developing a site-specific objective for shellfish harvesting will take longer than the upcoming triennial review period. However, Santa Ana Water Board staff will continue to review the SHEL study implementation, review work product, and participate in stakeholder and work group meetings.

Santa Ana Water Board staff will receive assistance from the Orange County TMDL Funding Partners, scientific groups such as SCCWRP, State Water Board, and possibly other coastal Regional Water Boards for working on this project.

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[Project 12: Add Adopted Basin Plan Amendments to the Online Basin Plan](#)

Santa Ana Water Board staff will update the Basin Plan available on the Santa Ana Water Board’s public web page with adopted amendments to help ensure that up-to-date information continues to be available to the public in a transparent and accessible manner.