

# Santa Ana Regional Water Quality Control Board

## Triennial Review High Priority List of the Water Quality Control Plan for the Santa Ana River Basin Fiscal Years 2024-2027

Draft Project Descriptions

March 29, 2024



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## INTRODUCTION

The [Santa Ana Region](#) covers 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 waters in the region. Water quality standards as used in the federal Clean Water Act, include 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 implementation plans/programs describing the actions by the Santa Ana Regional Water Quality Control Board (Santa Ana Water Board), necessary to achieve and maintain the water quality standards and protect beneficial uses.

The Porter-Cologne Water Quality Control Act (California Water Code section 13240) and the Clean Water Act both mandate the periodic review of basin plans and the water quality standards contained therein. Section 303(c)(1) of the Clean Water Act 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 elements of the Basin Plan. Updates and revisions may be necessary due to changes in law, regulation, or policies, new/revised water quality criteria, 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 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 described 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 U.S. EPA's TMDLs, copper boat paints and tributary runoff are the major sources of dissolved copper to Newport Bay.

On December 2, 2022, the 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 Board) for approval. Once approved, the Basin Plan amendment 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 Regional Water Quality Control Board (Santa Ana Water) adopted TMDLs for Lake Elsinore and Canyon Lake for nutrient impairments. In 2015, the Lake Elsinore and Canyon Lake Task Force petitioned the Santa Ana Water Board to reopen and revise the nutrient TMDLs based on new information collected since the TMDLs were adopted. 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;
- 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 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 further information was needed, including an uncertainty analysis for the predictive models used and determination if certain assumptions were appropriate. The Lake Elsinore and Canyon Lake Task Force assisted with the response to 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. In 2023, updated draft documents were submitted to Santa Ana Water Board staff for review.

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 Middle Santa Ana River (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 (REC-1).<sup>1</sup> 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.

The MSAR TMDL Task Force proposes to extend the wet winter conditions compliance date for a period justified by the MSAR Task Force and agreed to by the Santa Ana Water Board staff; this could be up to twenty years. The MSAR TMDL Task Force has stated that the extension is required to develop the necessary strategies to meet the wet winter conditions compliance target.

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.

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<sup>1</sup> *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.

#### 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 the control of 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.

The TMDLs REC1 fecal coliform numeric target is the geometric mean of less than 200 organisms per 100 mL of water based on five or more samples in a 30-day period, and no more than 10% of samples exceeding 400 organisms per 100 mL in any 30-day period. The TMDLs SHEL 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% of samples exceed 43 MPN per 100 mL. The State Water Board's Bacteria Provisions have revised the fecal indicator bacteria and monitoring procedures for the REC1 use for enclosed bays and estuaries. As a result, a Newport Bay REC1 TMDL would likely incorporate different monitoring schedules and use enterococcus as the fecal indicator bacteria rather than fecal coliform.

This triennial review project will consider separating the SHEL and REC1 beneficial use sections from the current Newport Bay Fecal Coliform TMDLs. The project will allow the incorporation of different compliance methods and timeframes for the attainment of SHEL and the REC1 water quality objectives in Newport Bay.

Newport Bay is a popular location for water contact recreation activities, including individuals from disadvantaged communities. In addition, there is the 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:

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- A. Mercury. On May 2, 2017, the State Water Board adopted [Resolution 2017-0027](#), which includes statewide mercury water quality objectives in [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](#). This action specifically designated a mercury water quality objective in the Basin Plan. Additionally, Resolution 2017-0027 established three new beneficial use definitions: Tribal Traditional 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 REC-1 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 provides 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 provide consistent protection of aquatic life in all inland surface waters, enclosed bays, and estuaries from the effects of toxicity. The Resolutions adopt a state policy for water quality control for all inland surface waters, enclosed bays, estuaries, and coastal lagoons of the state, which is specifically 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 traditions.

### 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 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-weight 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 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 new information.

### 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 updated helps maintain a safe and reliable drinking water supply for this area of the region.

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

Several waters in the Santa Ana Region, such as but not limited to: Irvine Lake, Jenks 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.

This triennial review project will assist Santa Ana Water Board staff in assessing waters designated with the COMM beneficial use for pollutants that could potentially impact recreational fishing.

#### [Project 9: 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 Board<sup>2</sup> have shown that the use of high-density septic tank-subsurface leaching/percolation (disposal) systems would cause or add to nitrate problems in the groundwater. Santa Ana Water Board Resolution 93-40 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, 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 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.

#### [Project 10: Consider a Site-Specific Objective for Shellfish Harvesting in Newport Bay](#)

As part of the Triennial Review 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

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<sup>2</sup>CRWQCB 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"

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harvesting TMDLs would facilitate efforts to develop a site-specific objective for Newport Bay. Regardless of if 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 (SCCWRP) 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.

[Project 11: Add Adopted Basin Plan Amendments to the Online Basin Plan](#)

Santa Ana Water Board staff will incorporate adopted BPAs to the Basin Plan available on the Santa Ana Water Board's public web page as an accessible electronic document.