

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SANTA ANA REGION

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**TENTATIVE RESOLUTION R8-2024-0054**

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**INFORMATION**

**Status:** TENTATIVE

**Program:** Regional Planning Programs Section

**Project:** Fiscal Years 2024-2027 Triennial  
Review of the Water Quality Control  
Plan for the Santa Ana River Basin

**CERTIFICATION**

I, JAYNE JOY, Executive Officer, hereby certify that the following is a full, true, and correct copy of the resolution adopted by the California Regional Water Quality Control Board, Santa Ana Region, on October 25, 2024.

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JAYNE JOY  
Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SANTA ANA REGION

RESOLUTION R8-2024-0054  
FOR  
TRIENNIAL REVIEW OF  
THE WATER QUALITY CONTROL PLAN  
FOR THE SANTA ANA RIVER BASIN  
FISCAL YEARS 2024-2027

**FINDINGS**

**WHEREAS, the Santa Ana Regional Water Quality Control Board (Santa Ana Water Board) finds that:**

1. The first comprehensive Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) was adopted by the Santa Ana Regional Water Quality Control Board (Santa Ana Water Board) on April 11, 1975. On March 11, 1994, the Santa Ana Water Board adopted an updated version of the Basin Plan, which became effective on January 24, 1995.
2. The Basin Plan contains the Santa Ana Water Board's water quality standards for surface and groundwater protection of the Santa Ana River Basin (Region). Water quality standards consist of beneficial uses and water quality objectives to protect those uses, as well as an antidegradation policy. The Basin Plan also contains programs of implementation, including total maximum daily loads (TMDLs) for surface waters, management measures for salts and nutrients in groundwater basins, certain discharge prohibitions, and references to other statewide plans and policies applicable to the Region's waters, descriptions of water quality monitoring and surveillance, and non-regulatory descriptions of the Region.
3. The Santa Ana Water Board has amended the Basin Plan numerous times to, among other things: incorporate TMDLs; revise management strategies for nitrogen and total dissolved solids; add language authorizing the inclusion of compliance schedules in National Pollutants Discharge Elimination System permits; revise recreation standards for inland surface waters; and incorporate other necessary changes.
4. State and federal law require the periodic or triennial review of water quality control plans. Water Code section 13240 requires that water quality control plans be periodically reviewed. Section 303(c) of the Clean Water Act (33 U.S.C. § 1313(c)) requires states to hold a public hearing for review of applicable water quality standards at least once every three years. For ease of reference, the

Triennial Review of Water Quality Control Plan for Santa Ana River Basin

state and federal review processes are referred to herein as the “Triennial Review.” The primary purpose of a triennial review is to review water quality standards to ensure they are based on current science, methodologies, and USEPA recommendations and guidance, as well as to take public comment on issues the Santa Ana Water Board should address in the future through the Basin Plan amendment process.

5. The Triennial Review process is cyclical in that at the end of one three-year review period, the review process begins again with the next three-year period. The process does not necessarily involve the revision of all or any particular component of the water quality standards every three years. Moreover, identification of an issue during a triennial review does not necessarily mean that any Basin Plan amendment will be made over the course of the three-year review cycle.
6. The Santa Ana Water Board identifies high-priority Basin Plan projects to be addressed during the Triennial Review period after considering a variety of factors, including the protection and restoration of beneficial uses, public input, agency priorities, compliance with legal requirements, the complexity and urgency of the project and anticipated completion time, staff resource capacity, and budgetary constraints.
7. In addition to the Triennial Review High-Priority List, Santa Ana Water Board staff also developed a medium-priority list for projects that are unlikely to be completed during this triennial review period due to the complexity of the issues, agency priorities, and availability of staff resources.
8. The Santa Ana Water Board may evaluate modifying and adopting water quality standards as a result of the triennial or periodic review process. The standards-setting process is a separate rulemaking process subject to various state law requirements, including public participation requirements and, as appropriate, environmental review and external scientific peer review.
9. The decision on whether to proceed with a proposed Basin Plan amendment is only made after the Santa Ana Water Board reviews the technical and legal considerations associated with an issue and determines that development of a Basin Plan amendment is supported by evidence and appropriate. Federal or state law or regulations may preclude changes that might otherwise be deemed desirable by stakeholders.
10. The FYs 2024-2027 Triennial Review Priority Lists and Work Plan, attached hereto as Attachments A, B and C to this resolution, identifies the projects that the Santa Ana Water Board has determined are the most appropriate priorities to undertake during the current triennial review period (July 2024 – June 2027). The

projects on these lists are prioritized to reflect water quality concerns, ongoing work and commitments, the availability of needed resources, and public input.

11. In adopting this resolution and the FYs 2024-2027 Triennial Review Priority Lists and Work Plan, the Santa Ana Water Board is not required to consider the factors of Water Code section 13241. Consideration of the factors is required when “establishing water quality objectives.” Here, the Santa Ana Water Board is not establishing water quality objectives. Instead, as required by state and federal law, the Santa Ana Water Board is reviewing its water quality standards and Basin Plan.
12. In adopting this resolution and the FYs 2024-2027 Triennial Review Priority Lists and Work Plan, the Santa Ana Water Board does not adopt or modify any water quality objectives. Accordingly, no findings are required under Water Code section 13149.2.

### **Public Participation**

13. On December 27, 2023, Santa Ana Water Board staff sent out notices to California Native American Tribes, inviting them to participate in the triennial review process, and submit suggested revisions or additions to the Basin Plan.
14. On December 28, 2023, the Santa Ana Water Board sent out an electronic notification of a public scoping meeting to hundreds of interested parties informing them of the initiation of the triennial review process and the upcoming public scoping meeting.
15. On January 31, 2024, Santa Ana Water Board staff conducted a public scoping meeting with interested parties to consider the preliminary proposed high priority list of Basin Plan projects to be addressed.
16. On March 29, 2024, Santa Ana Water Board staff sent out notices to California Native American Tribes for solicitation of comments on the updated draft High-Priority list.
17. On March 29, 2024, Santa Ana Water Board staff released copies an updated draft priority list to all interested parties for their review, with 30 days to submit comments.
18. Santa Ana Water Board staff reviewed and considered comments received from interested parties in preparing the FYs 2024-2027 Triennial Review Priority Lists and Work Plan.

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19. Santa Ana Water Board staff prepared a Staff Report for the FYs 2024-2027 Triennial Review describing the triennial review process, the current issues of concern to interested parties and the Santa Ana Water Board, and the recommended list of Basin Planning projects to be addressed during the 2024-2027 triennial review period.
20. The Santa Ana Water Board conducted a public hearing on October 25, 2024, to consider the adoption of the proposed 2024-2027 Triennial Review Priority Lists and Work Plan. Notice of the public hearing was given to all interested parties in accordance with federal and state requirements.
21. The Santa Ana Water Board has considered the entire record, including oral comments, in adopting the FYs 2024-2027 triennial review lists of Basin Planning priority projects for investigation, as set forth in the following resolves to this Resolution, for the current review period.
22. The Santa Ana Water Board considered all testimony at the public hearing on October 25, 2024, regarding the proposed FYs 2024-2027 Triennial Review Priority Lists and Work Plan.

**THEREFORE, BE IT RESOLVED THAT:**

1. Pursuant to Water Code section 13240, Clean Water Act section 303(c)(1), and 40 C.F.R. part 131.20, and in consideration of public comments, the Santa Ana Water Board hereby approves and adopts the FYs 2024-2027 Triennial Review Priority Lists and Work Plan, attached hereto as Attachment A, B, and C.
2. Areas of the Basin Plan not identified as needing investigation and possible revision are affirmed as adequate at the present time. However, adoption of the FYs 2024-2027 Triennial Review Priority Lists and Work Plan do not preclude the Santa Ana Water Board from considering other Basin Plan amendments related to matters that are not on the lists. The Executive Officer is authorized to re-prioritize basin planning projects based on legal or regulatory mandates that arise during the triennial review period.
3. The Santa Ana Water Board will, to the best of its capability and within budgetary constraints and staffing resources, address the priority issues and will prepare, as appropriate, amendments to the Basin Plan.
4. The current Basin Plan remains in effect until the Santa Ana Water Board adopts subsequent amendments and the appropriate state and federal agencies review and approve those amendments.

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5. A copy of this resolution shall be transmitted to the State Water Resources Control Board and USEPA.

### **List of Attachments**

Attachment A – Tentative Triennial Review High-Priority List Work Plan

Attachment B – Tentative Triennial Review High-Priority List Project Descriptions

Attachment C – Tentative Triennial Review Medium-Priority List Project Descriptions

# **Santa Ana Regional Water Quality Control Board**

## **Triennial Review High-Priority List Work Plan Fiscal Years 2024-2027**

August 15, 2024



## 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. 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 designated 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 plan(s) and the water quality standards contained therein. The purpose of the triennial review is to identify necessary updates and revisions to water quality standards to protect beneficial uses 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, 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.

Santa Ana Water Board staff developed a prioritized list of Basin Plan amendment projects to pursue during the upcoming three-year period. The Triennial Review High-Priority List provides prioritization based on multiple factors, including but not limited to Santa Ana Water Board's stated priorities, optimum use of available resources, stakeholder input, and anticipated project completion time. This work plan provides information about estimated project completion by fiscal year, and staff resources to complete the projects. The proposed priorities and schedules also reflect work that is already underway.



## Triennial Review Work Plan High-Priority List

Project Number	Project	Estimated Fiscal Year <sup>1</sup> Completion <sup>2</sup>	Estimated Staff Resources Required	Stakeholder Assistance/ Program Staff
1.	Complete the Copper Total Maximum Daily Loads for Newport Bay	2024/2025	1 PY <sup>3</sup>	TMDL <sup>4</sup> Staff
2.	Complete a Basin Plan Amendment to Revise the Lake Elsinore and Canyon Lake Nutrient Total Maximum Daily Loads	2025/2026	1 PY	LE/CL <sup>5</sup> TMDL Taskforce/ TMDL Staff
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	2025/2026	1 PY	MSAR <sup>6</sup> TMDL Task Force/ TDML Staff
4.	Consider Separating the Shellfish Harvesting and Water Contact Recreation Uses from the Newport Bay Fecal Coliform Total Maximum Daily Loads	2026/2027	3 PY	OC TMDL Funding Partners <sup>7</sup> TMDL Task Force/ TMDL Staff
5.	Complete a Basin Plan Amendment to Incorporate all Statewide Objectives and other Statewide Plans and Policies	2025/2026	1 PY	Basin Planning Staff

<sup>1</sup> State Fiscal Year July 1<sup>st</sup> - June 30<sup>th</sup>

<sup>2</sup> Includes Regional Board, State Water Resources Control Board, USEPA, and Office of Administrative Law approval

<sup>3</sup> Personnel Year = 2,080 hours

<sup>4</sup> TMDL= Total Maximum Daily Loads

<sup>5</sup> Lake Elsinore and Canyon Lake TMDL Task Force

<sup>6</sup> Middle Santa Ana River TMDL Task Force

<sup>7</sup> Orange County TMDL Funding Partners and Newport Bay Watershed Management Committee

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 Triennial Review High-Priority List Work Plan– Fiscal Years 2024-2027  
 Attachment A

Project Number	Project	Estimated Fiscal Year <sup>1</sup> Completion <sup>2</sup>	Estimated Staff Resources Required	Stakeholder Assistance/ Program Staff
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	2025/2026	1 PY	Basin Monitoring Program Task Force/ Basin Planning Staff
7.	Update the Total Dissolved Solids/Nitrogen Salt Management Plan for the Chino Basin Groundwater Management Zones	2026/2027	2 PY	Basin Monitoring Task Force/ Basin Planning Staff
8.	Consider Designation of the Commercial and Sport Fishing Beneficial Use	2026/2027	1 PY	Basin Planning Staff
9.	Consider Designation of the Tribal Tradition and Culture and Tribal Subsistence Fishing Beneficial Uses	2026/2027	1 PY	Basin Planning Staff
10.	Consider Reinstating the Minimum Lot Size Requirements for New Developments Using On-Site Septic Tank-Subsurface Leaching/Percolation Systems	2026/2027	1 PY	Wastewater Staff and Basin Planning Staff
11.	Consider a Site-Specific Objective for Shellfish Harvesting in Newport Bay	2026/2027	2 PY	TMDL Staff
12.	Add Adopted Basin Plan Amendments to the Online Basin Plan	Continuous	0.5 PY	Basin Planning Staff

# **Santa Ana Regional Water Quality Control Board**

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

August 15, 2024



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

- 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).<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.

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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.



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 10<sup>th</sup> 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 Board<sup>2</sup> 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,

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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"

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.

Tentative Resolution R8-2024-0054  
Triennial Review High-Priority List Project Descriptions – Fiscal Years 2024-2027  
Attachment B

[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.

# **Santa Ana Regional Water Quality Control Board**

## **Triennial Review Medium-Priority List Project Descriptions Fiscal Years 2024-2027**

August 15, 2024



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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.

Santa Ana Water Board staff have developed a secondary list of medium-priority projects that are unlikely to be completed during this triennial review period due to the complexity of the issues, agency priorities, and availability of staff resources. However, Santa Ana Water Board staff will monitor and work with interested parties on these projects as necessary and as resources allow. This document contains the descriptions of issues for the Triennial Review Medium-Priority List.

## TRIENNIAL REVIEW MEDIUM-PRIORITY LIST PROJECT DESCRIPTIONS

### Project 1: Consider/Develop a Selenium Site-Specific Objective for Freshwater within the Newport Bay Watershed

San Diego Creek Reach 1 is the largest tributary to upper Newport Bay. In 2002, United States Environmental Protection Agency (USEPA) established technical total maximum daily loads (TMDLs) for selenium for the San Diego Creek and Newport Bay Watershed as part of the technical TMDLs for Toxic Pollutants. On August 4, 2017, the Santa Ana Regional Water Quality Board (Santa Ana Water Board) adopted TMDLs for selenium in freshwater for the Newport Bay Watershed (which includes San Diego Creek and other freshwater tributaries to Newport Bay). The California Toxic Rule (CTR) establishes criteria for the protection of aquatic life from selenium for freshwater and enclosed bays and estuaries based on water column criteria. The listing for the San Diego Creek Reach 1 was based on water column data. However, since the primary route for selenium bioaccumulation is through diet, the impairment assessment was completed using the numeric targets selected from guidelines developed for freshwater fish tissue and bird egg tissue. The water column concentrations are currently based on the 2002 CTR criteria for selenium (5 µg/L chronic criterion; the 2017 TMDLs were developed as only dry weather TMDLs as that is when the greatest exposure to fish and wildlife occurs).

In the 2010 and 2024 303(d) lists, San Diego Creek Reach 1 was listed again as impaired for selenium. In addition, Peters Canyon Wash, a tributary to San Diego Creek Reach 1, was also listed as impaired for selenium. The 2017 TMDLs for Selenium in Freshwater for the Newport Bay Watershed includes San Diego Creek Reach 1 and Peters Canyon Wash and tributaries there to, the Santa Ana Delhi Subwatershed, and the Big Canyon Wash subwatershed.

The USEPA has been developing revised criteria for selenium for the CTR; the proposed rule included fish tissue-based criteria as well as default water column criteria. The proposed revised selenium CTR criteria also included guidance for developing site specific objectives for selenium. However, as of the date of this document, revised CTR criteria for selenium have not yet been promulgated by USEPA. Depending on when the final selenium criteria are promulgated, development of site-specific objectives may or may not be necessary.

Selenium is a naturally occurring element that may bioaccumulate through the food web to levels that can cause adverse effects on higher-level aquatic life and wildlife, including fish and birds that prey on fish and invertebrates. The beneficial uses most at risk from selenium bioaccumulation are warm freshwater habitats, estuarine habitats, marine habitats, preservation of biological habitats of special significance, wildlife habitats, rare, threatened, or endangered species, spawning, reproduction, and development. Selenium toxicity transfers especially to fish and bird eggs, which

subsequently impacts reproduction. Egg laying fish and aquatic-dependent bird species that live, forage, and nest in San Diego Creek and other freshwater streams in the area, such as Big Canyon Wash and Peters Canyon Wash, are the most susceptible to the adverse effects of selenium.

Delays in USEPA's revision of the CTR criteria for selenium, and other Santa Ana Water Board priorities in the Newport Bay watershed (e.g., Fecal Coliform TMDL) may prevent this project from being completed during the triennial review period. Promulgation of USEPA's revised selenium criteria may negate the need for site-specific objectives for selenium. Santa Ana Water Board staff will continue to monitor USEPA's progress for selenium and will work collaboratively with the Orange County TMDL Funding Partners and other interested parties to assess data collected that has been collected during implementation of the 2017 Selenium TMDLs.

### [Project 2: Review the Total Maximum Daily Load for Sediment in the Newport Bay/San Diego Creek Watershed](#)

Upper Newport Bay was included in the CWA 303(d) list as impaired by sediment in 1986, and both reaches of San Diego Creek were listed impaired for sediment in 1996. The Santa Ana Water Board adopted a Sediment TMDL for the Newport Bay Watershed in 1998.

The overall goal of the Sediment TMDL is to extend the interval between dredging events in the Upper Newport Bay to once every twenty to thirty years. The Sediment TMDL includes three targets:

- 1) Limiting sediment loads to Newport Bay to 62,500 tons/year on a 10-year annual average basis,
- 2) Requiring that two existing in-bay sediment trapping basins be maintained at an elevation of -7 feet of mean sea level or deeper, and
- 3) Limiting sediment-driven habitat change in Upper Newport Bay to less than one percent.

The 2022 Sediment TMDL compliance annual report shows that the TMDL numeric target for loading is currently being attained. The 10-year average annual load is currently 15,297 tons. It is anticipated that sediment loading will continue to remain below the TMDL target due to urbanization of former agricultural areas, stabilization of eroding channels, periodic removal of sediment in San Diego Creek and its tributaries, and periodic removal of sediment from sedimentation basins in the foothills of the watershed (Foothill Retarding Basins).

The TMDL target for in-bay basin depths is also being achieved. From 2006 to 2010, nearly two million cubic yards of sediments from the Upper Newport Bay were dredged, which lowered the in-bay basin depths to an average of nearly -22 feet mean sea level.

Preliminary modeling projections<sup>1</sup> indicate that sediment accumulation in the basins is not likely to reach -7 feet mean sea level, the TMDL sediment threshold, for 22 years in the Basin Unit I/III and 88 years in the Basin Unit II.

Achieving the third TMDL target (regarding habitat change) has shown mixed results. The habitat surveys and vegetation monitoring indicate a loss and gain of salt marsh over the past 10 years, with losses occurring along the lower edges and gains occurring in mudflat areas. Pickleweed and cordgrass have shown declines over time, which has impacted the federally endangered light-footed Ridgway's rail (the Ridgway's rail nests in coastal salt marshes where dense stands of cordgrass are present). Although the overall goal of the Sediment TMDL has been achieved, the Sediment TMDL may need to be modified to further limit sediment-driven habitat change in the salt marsh. In addition, the TMDL require that the San Diego Creek in-channel basins and Foothill Retarding Basins be maintained with at least 50 percent available capacity. The 2022 TMDL Basin Capacity Report determined that Basin 3 in the San Diego Creek has slightly less than the required capacity and will require sediment removal.

Recent modeling funded by the National Administrative and Atmospheric Administration (NOAA) and conducted by the University of California, Irvine ([UCI's SedRise Project](#)), indicates that a sediment deficient could occur in Upper Newport Bay sometime in the future as a result of sea level rise that may require allowing more sediment to enter the Upper Bay to allow salt marsh habitat to move upland. This potential scenario should be considered in revising the Sediment TMDL.

It is unlikely that a Basin Plan amendment to revise the Sediment TDML will be completed during this triennial review period due to other regional priorities and lack of staff resources to revise the TMDL. Santa Ana Water Board staff will continue to work with the Orange County TMDL Funding Partners and other interested parties to continue to meet the first two sediment targets: limiting sediment loads to Upper Newport Bay and maintain the required depth in the in-Bay sediment basins.

### [Project 3: Review and Revise the Nutrient Objective for San Diego Creek](#)

The numeric water quality objective for nitrogen (as total inorganic nitrogen or TIN) in San Diego Creek Reach 2 (5 milligram per liter (mg/L)) was established in 1975 and in 1983 for Reach 1 (13 mg TIN/L). These objectives were frequently exceeded in the 1980s, resulting in significant algal blooms in both fresh and saltwater, and both San Diego Creek and Upper Newport Bay were listed on the CWA 303(d) list as impaired for nutrients. To address the impairment, in 1998, Nutrient TMDLs were developed that required a 50 percent reduction in nutrient loading (nitrogen and phosphorus) to Newport Bay to reduce algal biomass.

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<sup>1</sup> "Bathymetric Monitoring" Marine Taxonomic Services, 2020

Compared with the pre-TMDLs annual Total Nitrogen loads (1,087,000 pounds), significant reductions have been achieved. These reduced concentrations have greatly reduced nutrient loading and significantly reduced excessive algal blooms in Newport Bay. As a result of improved water quality, in 2015, a revised regional monitoring program was approved. The revision included reducing the number of monitoring stations as well as the frequency of monitoring and reporting. The most recent annual report for 2021-2022 shows that the TMDLs numeric targets are being met except for the annual urban total phosphorus waste load allocation.

The State Water Resources Control Board (State Water Board) is considering statewide water quality objectives and regulatory control options for nutrients, other biostimulatory substances, and cyanotoxins. Santa Ana Water Board staff will consider the State Water Board's guidance as it is developed. If adopted by the State Water Board, Santa Ana Water Board staff will consider proposing new nitrogen objectives for San Diego Creek (the primary source of nutrients to Newport Bay). Because State Water Board guidance has not yet been adopted, this issue will likely not be addressed during this triennial review period. During the current triennial review period, Santa Ana Water Board staff will work with the interested parties, participate in the biostimulatory working group, and review annual reports to continue to implement the TMDLs.

#### [Project 4: Review of Use Attainability Analyses for Waters De-Designated for the Water Contact and Non-Water Contact Beneficial Uses](#)

Santa Ana Water Board staff conducted Use Attainability Analyses (UAAs) for several waterbodies in the Santa Ana Region pursuant to federal regulation 40 CFR § 131.10(g) and USEPA guidance. The UAAs determined that the water contact recreation (REC1) use and non-contact water recreation (REC2) for one reach was not attained for the following regional waters:

- Santa Ana Delhi Channel (Reaches 1, 2, and the Tidal Prism),
- Greenville-Banning Channel Reach 1 and the Tidal Prism. For Reach 1 of the Greenville-Banning Channel the beneficial use REC2 was also de-designated
- Temescal Creek Reaches 1a and 1b, and
- Cucamonga Creek Reach 1

USEPA's regulations at 40 CFR § 131.20(a) require that every three years a state (in this case, the Santa Ana Water Board) must re-examine any waterbody segment with water quality standards that do not include the uses specified in CWA section 101(a)(2) (i.e., fish and wildlife and recreational uses). If new information indicates that the uses are attainable, then the Santa Ana Water Board must revise its standards accordingly through a Basin Plan amendment process.

In April 2024 Santa Ana Water Board staff submitted a report on the status of the Region's de-designated waters to USEPA, thus satisfying the requirements of 40 CFR §

131.20(a). USEPA is reviewing the report. During this triennial review period, Santa Ana Water Board staff will complete another review of the de-designated water segments.

#### Project 5: Develop a Plan to Review Salinity Objectives in Chapter 4 of the Basin Plan

During the 2010 Integrated Report cycle, stakeholders indicated an interest in reviewing the appropriateness of the surface water Total Dissolved Solids (TDS) and other mineral objectives for Chino Creek Reach 1B. In the 2016 Integrated Report, it was stated that although there were exceedances of the TDS objective in Chino Creek Reach 1B, none of the exceedances would cause an impairment to any of the beneficial uses assigned to Chino Creek Reach 1B (REC1, REC2, WARM, WILD, and RARE). State Water Board staff agreed, and Chino Creek Reach 1B was not listed on the 303(d) list for TDS. Additionally, the 2016 Integrated Report pointed out that the objectives for Chino Creek Reach 1B, which include TDS, Hardness, Sodium, Chlorides, Total Inorganic Nitrogen, Sulfate, and Chemical Oxygen Demand were based on historical values. These anti-degradation objectives were intended to be protective of the groundwater aquifers underlying this water and other regional surface waters.

Considering that the salinity objectives were based on anti-degradation levels to protect groundwater it is appropriate to reevaluate the objectives. Due to other priorities, availability of resources, and the project complexities, it is unlikely that a determination of the appropriateness of the salinity objectives can be completed within this triennial review period. However, Santa Ana Water Board staff will continue to work with the Basin Monitoring Task Force and other interested parties to assess additional available monitoring data to determine if it is appropriate to revise the surface water salinity objectives. A related salinity objective issue is included as part of the Triennial Review High-Priority List (Issue No. 6) to clarify monitoring procedures for salinity objectives for certain regional surface waters, including Chino Creek.

#### Project 6: Consider/Revise Total Dissolved Solids Objectives for Rattlesnake, Syphon, and Sand Canyon Reservoirs Based on Storage of Recycled Water

The Irvine Ranch Water District (IRWD) has requested that Santa Ana Water Board staff consider revising the TDS water quality objective for Rattlesnake, Sand Canyon, and Syphon Reservoirs located in Orange County, which are owned and operated by IRWD. The Rattlesnake, Sand Canyon, and Syphon Reservoirs are currently utilized for the storage of recycled water produced at the Michelson Water Recycling Plant. The current TDS water quality objective in the Basin Plan for all three reservoirs is 720 mg/L. IRWD staff anticipate that the projected increase in water conservation requirements for residences will lead to increases in TDS in the Michelson Plant effluent (which is sent directly to the reservoirs) by 2030. It is likely that the TDS objective of 720 mg/L will be exceeded in the reservoirs. IRWD requests that Santa Ana Water Board staff review the reservoir objectives during the triennial review to determine the most appropriate TDS effluent limit and possibly a TDS water quality objective that could be established while protecting the beneficial uses of the reservoirs.



IRWD will have to provide pertinent studies and justification for a proposed revised objective to support revision of the current TDS objective. During this triennial review period, Santa Ana Water Board staff will coordinate with IRWD to determine what technical and environmental documents are necessary to justify revising the TDS objective and developing a Basin Plan amendment to adopt the revised objective.

#### Project 7: Consider Revision of the Fecal Indicator Bacteria Objective for the Middle Santa Ana River Total Maximum Daily Loads by Developing a Site-Specific Objective

The Middle Santa Ana River (MSAR) Watershed TMDL Task Force has funded studies, reviewed recent research, and has considered the efforts of other Regional Boards and the State Water Board regarding the relationship between fecal indicator bacteria concentrations in waters of the state, and apparent risk levels involved with water contact recreation in those water bodies. The MSAR TMDL Task Force suggests that the current TMDLs objective does not assess risk accurately, and a site-specific objective might be better at assessing risk for the REC1 beneficial use and protecting public health. During the 2024-2027 Triennial Review period, the MSAR Task Force and Santa Ana Water Board staff will continue to review data related to fecal indicator bacteria and consider the development of site-specific objectives for this TMDLs.

#### Project 8: Consider Adopting Clean Water Act Section 304(a) Recommended Criteria

Section 304(a)(1) of the CWA requires the USEPA to develop national criteria for water quality that accurately reflects the latest scientific knowledge. These criteria are based on data and scientific judgments on pollutant concentrations and environmental or human health effects. Criteria are developed for the protection of aquatic life as well as for human health. During a state's triennial review of water quality standards, CWA section 303(c)(2)(B) requires states to adopt criteria for all toxic pollutants for which USEPA has published criteria under section 304(a), and the discharge or presence of which in the affected waters could reasonably be expected to interfere with those designated uses adopted by the State, as necessary to support such designated uses. Currently, the State Water Board has not adopted for statewide use these criteria.

The USEPA has published Clean Water Act section 304(a) recommended criteria. During the triennial review period, Santa Ana Water Board staff will consider adopting certain aquatic life and human health criteria, including:

- Aquatic Life: acrolein, ammonia, cadmium, carbaryl, copper, diazinon, nonylphenol, selenium freshwater<sup>2</sup>, tributyltin, and:
- Human Health: Human Health Criteria Updates for 94 pollutants.

Of particular importance to the Santa Ana Water Board is USEPA's 2013 Aquatic Life Ambient Water Quality Criteria for Ammonia in Freshwater. The Santa Ana Water Board

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<sup>2</sup> The USEPA has been developing revised criteria for selenium for the CTR.

has adopted two freshwater nutrient TMDLs. Additionally, many effluent dominated waters (i.e., Santa Ana River Reaches, 2, 3, and 4), storm water runoff, and runoff from dairies have the potential to increase ammonia concentrations in surface waters. The Basin Plan's current freshwater ammonia objective includes specified ranges in pH and temperature<sup>3</sup> to protect sensitive aquatic species. Therefore, the current ammonia objective does not accurately determine ammonia concentrations in waters with pH and/or temperatures that lie outside the ranges specified in the objective. This limits the Santa Ana Water Board's ability to assess waters under CWA section 303(d) for impairment due to ammonia.

The adoption of Ammonia Criteria may require surveying the regional freshwaters to determine presence or absence of the sensitive aquatic species that the criteria was designed to protect. Due to agency priorities, the complexity of the matter, and limited staff capacity, it will be challenging to initiate work on Ammonia Criteria or other CWA section 304(a) criteria. The adoption of such criteria may be more efficiently accomplished by the State Water Board when the criteria are of statewide importance. Santa Ana Water Board staff will consider recommending the addition of approved statewide criteria as appropriate to the Basin Plan. Where appropriate, Santa Ana Water Board staff will incorporate Clean Water Act section 304(a) recommended criteria into TMDLs and permits.

#### Project 9: Consider Adding to and Revising Waters in Tables 3-1 and 4-1 and Designate Appropriate Beneficial Uses

During the triennial review period, Santa Ana Water Board staff will consider adding and revising regional waters and designating appropriate beneficial uses and water quality objectives, which include the following:

- a. List the Rhine Channel separately from Lower Newport Bay. The Rhine Channel historically included shipyards, a canning factory, a metal plating facility, as well as other industrial uses, which were not present (or of limited presence) in the rest of lower Newport Bay. As a result, the Rhine Channel has been significantly impacted by pollutants such as chromium, mercury, and other metals as well as legacy pesticides and has been classified as a Toxic Hotspot by the state. The rest of Lower Newport Bay. Rhine Channel is listed separately from the remainder of lower Newport Bay has not been found to be impaired for chromium or mercury. Listing Rhine Channel as distinct from lower Newport Bay would provide clarity in defining potential remediation efforts and the standards that apply to Rhine Channel. The designated beneficial uses would be the same as currently designated in Table 3-1 of the Basin Plan for Lower Newport Bay.

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<sup>3</sup> Calculated numerical unionized ammonia (UIA-N) objectives as well as corresponding total ammonia nitrogen concentration for various pH and temperature conditions are shown in Tables 4-2 and 4-3 of the Basin Plan.



- b. Consider changing the San Diego Creek Reach designations. The existing reach designations divide San Diego Creek into two reaches: an approximately eight-mile reach (Reach 1) extending from Newport Bay to Jeffrey Road, and a six-mile reach (Reach 2) continuing from Jeffrey Road to Laguna Woods. Due to extensive land use and other changes in the watershed, these reach designations are no longer representative of hydrogeological conditions along the San Diego Creek. Redefining the reaches to better match the local hydrogeology will allow a more effective application of water quality standards. The beneficial uses designated would likely include those currently listed in Table 3-1 of the Basin Plan for this waterbody.
- c. Add reach designations to Peters Canyon Wash. Peters Canyon Wash is not divided into reaches although the character of the wash changes significantly where it intersects the area of shallow groundwater in the lower portion of the Tustin Plain. Dividing the Peters Canyon Wash into two reaches based on the location where groundwater begins to exert a significant impact on hydrology and water chemistry will facilitate the implementation of targeted water quality standards. The designated beneficial uses would likely be similar to those currently listed in Table 3-1 of the Basin Plan for this water body.
- d. Consider adding to Table 3-1 of the Basin Plan waters tributary to Anaheim Bay and Huntington Beach Wetlands: Bolsa Chica, Westminster, East Garden Grove Wintersburg, Huntington Beach, Talbert, and Anaheim Barber Channels. Santa Ana Water Board staff's preliminary recommendation is to designate these waters with the following beneficial uses existing or potential Water Contact Recreation, Non-contact Water Recreation, Wildlife Habitat, Warm Freshwater Habitat, Estuarine Habitat, and Rare Threatened or Endangered Species.