Ventura Countywide Stormwater Quality Management Program

Participating Agencies

Camarillo

County of Ventura

Fillmore

Moorpark

Ojai

Oxnard

Port Hueneme

San Buenaventura

Santa Paula

Simi Valley

Thousand Oaks

Ventura County Watershed Protection District

November 6, 2025

California Regional Water Quality Control Board
Los Angeles Region
Basin Planning Program
Attention: Dr. Stefani Daryanto
320 West 4th Street, Suite 200
Los Angeles, CA 90013
Submitted via email: Stefani.Daryanto@waterboards.ca.gov
RB4-basinplanLA@waterboards.ca.gov

SUBJECT: SOLICITATION LETTER – 2026-28 TRIENNIAL REVIEW

Dear Dr. Daryanto:

On behalf of Ventura Countywide Stormwater Quality Management Program (Program), which includes the Watershed Protection District, the County of Ventura and the incorporated cities of Camarillo, Fillmore, Moorpark, Ojai, Oxnard, Port Hueneme, Ventura, Santa Paula, Simi Valley, and Thousand Oaks, thank you for the opportunity to provide comments on the *Los Angeles Regional Water Quality Control Board's (Regional Board) Notice of 2026-28 Triennial Review of Water Quality Standards in the Los Angeles Region (Notice).* Collectively, these agencies operate the municipal storm drain system in Ventura County and discharge stormwater and urban runoff pursuant to the Los Angeles Regional NPDES Stormwater Permit. All 12 agencies are committed to working cooperatively to improve storm water quality in our local waterways and beaches.

The Program appreciates the efforts made by the Regional Board in developing and updating priority projects for the Los Angeles Region. The Program requests consideration of the following priority projects for the 2026-2028 Triennial Review.

800 South Victoria Avenue • Ventura CA 93009-1610
805/654-2002 • FAX 805/654-3350

Comments on the 2026-28 Triennial Review:

Comment #1: Incorporate risk-based approach into bacteria objectives

Submitting organization: Ventura Countywide Stormwater Quality Management Program

Contact Person: Hayley Luna, Deputy Director of Watershed Protection's Water Resources Division in the County of Ventura's Public Works Agency.

Affected Water Quality Objective: Fecal indicator bacteria objectives (i.e., E. coli, Enterococcus, Fecal Coliform) and Bacteria TMDL targets (i.e., Total Coliform)

Affected Waterbody and Watershed: Ventura River Watershed, Santa Clara River Watershed, Calleguas Creek Watershed, Malibu Creek Watershed, and the Ventura County Coastal Watersheds.

Affected Beneficial Use: Recreation

Concise Summary of Data, Information or Evidence: The Los Angeles Water Board has acknowledged that the combination of risk-based (e.g., quantitative microbial risk assessment) approach and epidemiological data can provide a robust and more appropriate alternative to protect REC-1 beneficial use and identified the possibility to use alternative indicators if studies are conducted that demonstrate an equivalent level of risk to the existing water quality objectives. We appreciate this acknowledgement and the intention to include the latest science in decision-making. Correspondingly, we would like to highlight that the 2012 EPA recommended criteria is an estimated illness rate with corresponding fecal indicator bacteria values to achieve the estimated illness rate. Studies being conducted in the San Diego and Santa Ana Regions are evaluating options for achieving the estimated illness rate using alternative indicators or direct demonstrations of the risk of illness. These studies have prompted the San Diego Regional Board to include Triennial Review projects in the last two cycles to update its REC-1 Water Quality Objectives to focus on risk and human sources of indicator bacteria.

Concise Summary of Suggested Revisions:

- Include a project to identify alternative methods of ensuring protection of recreation beneficial uses other than strict compliance with fecal indicator bacteria objectives. Options include, but are not limited to, developing a narrative objective that would allow the use of alternative measurements, such as human specific markers, to demonstrate risk levels are being achieved, developing alternative approaches to address nonpoint sources of bacteria that pose a lower risk to the public, and implementing seasonal suspensions for waterbodies in Ventura County.

- Incorporate risk-based compliance approaches into the Malibu Creek and Lagoon Bacteria TMDL, Santa Clara River Estuary and Reaches 3, 5, 6, and 7 Indicator Bacteria TMDL, Santa Monica Bay Beaches Bacteria TMDL and Harbor Beaches of Ventura County (Kiddie and Hobie Beach) Bacteria TMDL.

Supporting Data, Information or Evidence:

The San Diego Region's 2014 Triennial Review Project Summary Evaluation of REC-1 Water Quality Objectives and Methods for Quantifying Exceedances (2014 Triennial Review Project) and the Southern California Coastal Water Research Project's (SCCWRP) 2016 Surfer Health Study findings show limitations to existing state-wide bacteria indicators. Both suggest that Fecal Indicator Bacteria (FIB) at beaches during wet weather overestimate the health risk to recreators, as FIB cannot distinguish between sources that pose a higher risk of illness, resulting in areas where the FIB objectives may be over or under protective. The San Diego Water Board noted the illness risk level associated with the recommended EPA REC-1 criteria and suggested exploring alternative indicators that are consistent with the risk level associated with the FIB objectives. In 2023, EPA published an evaluation of their 2012 criteria. In the evaluation, EPA acknowledged that new methods are available that "provide additional information for assessing the potential risk of illness." [1] EPA also noted in the evaluation that "While FIB can be a useful indicator where raw and poorly treated sewage dominates water quality, multiple studies discuss the inconsistent performance of culture-enumerated FIB related to health and point to other indicators to better represent the potential risk of illness." As a result, where sewage is not a dominate source, FIB has the potential to overestimate risk to recreators, resulting in the unnecessary closing of recreational waters and limiting the availability of recreation to the public. At the same time, it is also possible that FIB could underestimate risk if there is significant human fecal contamination. As noted in the EPA evaluation, "Waters receiving human fecal contamination can have viral pathogens present at health-relevant levels and yet also be below recommended water quality levels for culturable FIB." As a result, using alternative indicators that better represent risk have the potential to better protect and communicate risk to recreators.

Building on the 2014 Triennial Review Project and the SCCWRP 2016 Surfer Health Study findings, the San Diego Water Board staff began evaluating different ways of better estimating the risk to recreators and identifying implementation programs that better target risk. The San Diego State University (SDSU) and the Surface Water Ambient Monitoring Program (SWAMP) Beach Study "*Evaluation of Alternative Water Quality Indicators for Water Contact Recreation at Beaches and Estuaries Alternative Indicators for Water Contact Recreation*" [2] and the San Diego River Investigative Order No. R9-2019-0014 [3] were completed. The studies compared results from alternative

[1] Report on the 2nd Five-Year Review of EPA's Recreational Water Quality Criteria.
[2] https://www.waterboards.ca.gov/sandiego/water_issues/programs/mon_assess/sdsu_project_fact_sheet_ada.pdf
[3] https://www.waterboards.ca.gov/sandiego/board_decisions/adopted_orders/2019/R9-2019-0014.pdf

indicators to traditional FIB results and investigated sources of human fecal waste. San Diego Water Board staff determined that it would be reasonable and helpful to incorporate the use of alternative indicators into the decision-making process for implementation actions to focus actions on those that have the most potential to reduce risk to recreators.

Additionally, results from the San Diego River Investigative Order have triggered the initiation of updates to bacteria TMDLs. The San Diego Region REC-1 Triennial Review project focuses on clarifying the TMDL goals, updating the numeric targets to be consistent with statewide bacteria water quality objectives and using study results to inform revisions to the TMDLs and MS4 permit to address human sources of fecal bacteria.

The findings from the San Diego Region are particularly relevant to Ventura County due to the similarity of many of the watersheds. Much of San Diego County has significant open space with agricultural land in the North County and an urbanized coast and fewer, less dense, and smaller urbanized areas inland. The open space areas in San Diego County contribute significant amounts of FIB, particularly during wet weather. Per the TMDL for Indicator Bacteria, Project I-Twenty Beaches and Creeks in the San Diego Region, the enterococcus loading from open space during wet weather was 5,000,000 to 10,000,000 Billion MPN/year for the three major San Diego County watersheds included in the TMDL (San Luis Rey, San Dieguito, and San Diego River). The San Diego TMDL findings are supported by the Assessment of Water Quality Concentrations and Loads from Natural Landscapes report by SCCWRP. This study found that open space contributes significant natural loadings of FIB and concluded that wet-weather bacteria concentrations for E. coli, enterococcus, and total coliform exceeded freshwater standards in 40 to 50% of the samples.[4] This significant natural loading results in the potential for FIB water quality objective exceedances during wet weather that can solely be attributed to natural sources, which have minimal risk to recreators.

In the Santa Ana Region, the Regional Water Board has incorporated risk-based approaches for Bacteria TMDLs into the tentative MS4 permit and allowed the submittal of alternative indicators for demonstrating compliance with the Newport Bay Fecal Coliform TMDL into a recent Time Schedule Order.

The Los Angeles Water Board can leverage studies and alternative regulatory approaches being explored and used in the San Diego and Santa Ana Regions in implementing this proposed project. The project can also explore the use of emerging technological approaches that can provide more real time notification to the public when the risk for illness is elevated in recreational areas. The project should be a high priority to ensure the latest science and technology is being used to reduce the risk of illness to people recreating in the region's waters while also providing better communication of

[4] Assessment of Water Quality Concentrations and Loads from Natural Landscapes. Southern California Coastal Water Research Project Technical Report 500, February 2007.

risk and availability of recreational opportunities when risk is lower than indicated by the FIB objectives.

Comment #2: Adjust Shellfish Harvesting Beneficial Uses and Objectives

Submitting organization: Ventura Countywide Stormwater Quality Management Program.

Contact Person: Hayley Luna, Deputy Director of Watershed Protection's Water Resources Division in the County of Ventura's Public Works Agency.

Affected Water Quality Objective: Total Coliform

Affected Waterbody and Watershed: Enclosed Bays and Estuaries in the Ventura County Coastal Watersheds.

Affected Beneficial Use: Shellfish Harvesting

Concise Summary of Data, Information or Evidence: Chapter 2 of the Basin Plan includes Shellfish Harvesting (SHELL) as a beneficial use, but this beneficial use does not differentiate between recreational and commercial shellfish harvesting nor does it consider tribal shellfish harvesting. The program would like the Regional Board to consider developing a project for the revision of coliform bacteria beneficial uses and objectives for shellfish harvesting.

Chapter 3 of the Basin Plan establishes a total coliform objective that applies to all areas where shellfish are harvested for human consumption, commercial, and sports purposes. However, like the recreational beneficial use, new studies are being conducted in the Santa Ana Region that indicate that FIB concentrations in the water column may not correlate with the risk of illness to people consuming shellfish unless human sources of FIB are present. The Program sees the Triennial Review as an opportunity to include a project to evaluate the latest science to develop a risk-based approach to protecting the recreational and tribal beneficial uses that occur in enclosed bays and estuaries in Ventura County and to remove requirements that apply only to protect commercial shellfish harvesting activities that are not present in these waterbodies.

Concise Summary of Suggested Revisions:

- Add a new project to the 2026-28 Basin Plan Triennial Review to separate the shellfish harvesting beneficial use into beneficial uses for recreational shellfish harvesting, commercial shellfish harvesting, and potentially tribal shellfish harvesting. Apply the recreational shellfish and tribal shellfish harvesting beneficial uses where applicable to waterbodies in Ventura County but remove the commercial shellfish harvesting beneficial use.

- Adjust the existing shellfish harvesting total coliform objective, to 1) include the latest scientific knowledge; 2) assess the potential for including a risk-based approach for shellfish harvesting; 3) assess alternative pathogen indicators based on the latest scientific advancements; 4) and develop alternative objectives based on that knowledge (e.g., human fecal waste indicator, coliphage objectives, and/or others).

Supporting Data, Information or Evidence:

Harvesting for recreational use is defined in part by the method of collection which, in Ventura County, is done by hand and is typically near shore where the rate of ocean water mixing is low. In contrast, commercial shellfish harvesting is typically conducted by boat in deeper open waters or bays where the mixing rate is higher. This difference in mixing rates influences bacteria concentrations and sources that could influence risk to people consuming the shellfish. At the same time, the number of shellfish collected is lower for recreational and tribal beneficial uses than a commercial shellfish operation. The purposes for collecting the shellfish could also differ. Native American tribes may collect shellfish for different uses, including consumption and cultural uses, such as ceremonies and art. Uses that do not involve consumption result in different potential exposure routes and associated levels of risk. However, the existing water quality objectives are based on the requirements needed to protect commercial shellfish harvesting and do not reflect the differences in amount of consumption and exposure that occur in recreational and tribal beneficial uses. As a result, appropriate protection of the beneficial use involves both clarifying the beneficial uses and where they apply and then determining appropriate objectives to protect the various beneficial uses.

Similar to the recreational beneficial use, total coliform or other FIB objectives may not be the appropriate indicator to use to protect the shellfish harvesting beneficial uses. In Newport Bay in the Santa Ana Region, the Southern California Coastal Water Research Project (SCCWRP) and the State and Regional Water Boards have been conducting a study to evaluate the relationship between pathogens in shellfish and FIB concentrations in the water column. The first phase of the study, conducted in dry weather, found no correlation between pathogens in the shellfish and water column FIB concentrations[5]. The second phase of the study is being conducted to evaluate this relationship during wet weather conditions.

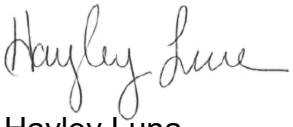
The combination of the lack of consideration of the differences in the types of uses and the emerging science about the relationships between FIB in the water column and pathogens in the shellfish indicate that the existing Basin Plan objectives could be over or under protective and should be evaluated.

[5] Relationships between indicators and pathogens in shellfish and water in Newport Bay, CA. Southern California Coastal Water Research Project Technical Report 1193. April 2022.

The State Water Board included a similar project in the 2019 Ocean Plan Triennial Review that includes consideration of separating the recreational, commercial and tribal beneficial uses and evaluating new objectives to protect these uses, including consideration of alternative indicators to best evaluate risk to human health. The proposed project could be coordinated with the State Water Board's project to ensure that any changes made to the Ocean Plan are correspondingly made to the shellfish standards in the Los Angeles Region Basin Plan for enclosed bays and estuaries.

On behalf of the Ventura Countywide Stormwater Quality Management Program, thank you for your time and the opportunity to submit these comments. The Program looks forward to reviewing the revised Draft Policy and offering further input as work progresses toward the final policy. If you have any questions, please contact me at (805) 662-6737, or via email at Hayley.Luna@venturacounty.gov.

Sincerely,



Hayley Luna
On Behalf of the Ventura Countywide Stormwater Management Program

cc: Ventura County Stormwater Program Permittees