REGION 9
SAN FRANCISCO, CA 94105

By Email Only

Eric Oppenheimer
Executive Director
State Water Resources Control Board
1001 I Street, 25th Floor
Sacramento, CA 94814

Re: California's 2024 List of Impaired Waters under Clean Water Act (CWA) Section 303(d)

Dear Executive Director Oppenheimer:

The Environmental Protection Agency (EPA) is pleased to partially approve the subject List, including all water quality-limited segments (WQLS) and associated pollutants identified by the State Water Resources Control Board (State Water Board) as requiring a total maximum daily load (TMDL) under CWA section 303(d). EPA is disapproving the state's omission of 53 WQLS and is identifying these impairments for inclusion on the 2024 List of Impaired Waters (2024 List). EPA's review and rationale for this action is enclosed.

EPA finds California developed its 2024 List largely consistent with the requirements of CWA section 303(d) but found the State Water Board's decision not to list 44 waterbodies for benthic community effects inconsistent with California's water quality standards. EPA also found nine WQLS that were erroneously classified as having an approved regulatory alternative to a TMDL, however these WQLS still require TMDLs and must be included on the 2024 List. EPA will issue a public notice providing a 30-day public comment period on the inclusion of these 53 WQLS to California's 2024 List. After considering any comments received, EPA may make revisions, as appropriate, and will transmit final listings to the State Water Board for incorporation into the state's water quality management plan.

I look forward to our continued partnership to protect California's water quality and advance human health and wildlife protection. Please call me at (415) 972-3337 if you would like to discuss further, or your staff may contact Eric Dubinsky at (415) 972-3517 or dubinsky.eric@epa.gov with specific questions concerning this decision.

Sincerely,

/s/ December 12, 2024

Tomás Torres
Director, Water Division

Enclosure

1. EPA Review of California's 2024 CWA Section 303(d) List of Impaired Waters

cc: Ana Maria Saenz, State Water Board
Lori Webber, State Water Board
Rebecca Fitzgerald, State Water Board

Enclosure

EPA Review of California's 2024 CWA Section 303(d) List of Impaired Waters

1. Introduction

This document sets forth the U.S. Environmental Protection Agency's (EPA) reasoning for partially approving/partially disapproving California's 2024 Clean Water Act (CWA) section 303(d) list (303(d) list).

Section 303(d) of the CWA requires each state and territory to "identify those waters within its boundaries for which [current pollution control technologies] … are not stringent enough to implement any water quality standard applicable to such waters." This list is referred to as the Impaired Waters List or 303(d) list of water quality-limited segments (WQLSs) requiring a Total Maximum Daily Load (TMDL) pursuant to 40 Code of Federal Regulations (CFR) section 130.7.

EPA received California's 2024 303(d) list on March 26, 2024 through email and the ATTAINS database.[1] The state submitted revisions to the ATTAINS submission on August 27, 2024. The submission includes the state's 2024 303(d) list, listing decisions, assessment methodology, and supporting data, as well as its required CWA section 305(b) report. The EPA conducted a complete review of the state's 2024 303(d) list and supporting documentation and information, including changes from the previous 303(d) list. The final 2024 303(d) list and supporting documentation and information are found in ATTAINS and How's My Waterway.[2]

Based on its complete review of California's corrected 2024 303(d) list and supporting documentation and information, EPA determined that the state's 303(d) list of WQLSs still requiring TMDLs partially satisfies the requirements of section 303(d) of the CWA and EPA's implementing regulations. Therefore, EPA hereby partially approves/partially disapproves California's 2024 303(d) list. The EPA is adding 53 WQLSs to the state's 303(d) list.

EPA's action regarding California's 2024 303(d) list does not extend to any waterbodies, or portions of waterbodies, that are within Indian country, as defined in 18 United States Code section 1151. The EPA is taking no action to approve or disapprove the state's 303(d) list with respect to those waters. EPA, or eligible Indian Tribes, as appropriate, will retain responsibilities under Section 303(d) for those waters.

EPA's action regarding California's 2024 303(d) list does not extend to any waterbodies that are within exclusive federal jurisdiction. The EPA is taking no action to approve or disapprove the state's 303(d) list with respect to those waters.

[1] Assessment, Total Maximum Daily Load (TMDL) Tracking and Implementation System (ATTAINS) https://www.epa.gov/waterdata/attains.
[2] How's My Waterway https://mywaterway.epa.gov/.

2. EPA's Analysis of California's Submission

Section 303(d)(1) of the CWA and EPA's implementing regulations at 40 CFR 130.7 require states, territories, and authorized Tribes (herein referred to as "states") to identify waters for which effluent limitations required by CWA section 301(b)(1)(A) and (B) are not stringent enough to implement any applicable water quality standard. States need not identify on their lists waters where the following controls are adequate to implement applicable standards: 1) technology-based effluent limitations required by the CWA; 2) more stringent effluent limitations required by state or local authority; and 3) other pollution control requirements required by state, local, or federal authority. 40 CFR 130.7(b)(1) and (2). CWA section 303(d) lists must identify WQLSs still requiring TMDLs. 40 CFR 130.7(b)). The definition of "water quality limited segment" in 40 CFR 130.2(j) includes any segment where it is known that water quality does not meet applicable water quality standards (referred to as "impaired waters") and any segment that is not expected to meet applicable water quality standards (referred to as "threatened waters").[3] The term "applicable water quality standards" refers to those water quality standards established under section 303 of the CWA, including numeric criteria, narrative criteria, waterbody uses, and antidegradation requirements. 40 CFR 130.7(b)(3). A WQLS must be on the 303(d) list and requires a TMDL unless the state can demonstrate that no pollutant(s) causes or contributes to the impairment.[4] In addition, in developing their CWA 303(d) lists, states must meet several procedural, submission, and content requirements as described in this decision document.

States must submit their 303(d) lists to EPA on April 1 of every even-numbered year. 40 CFR 130.7(d)(1). The EPA must approve or disapprove the 303(d) list not later than 30 days after submission. The EPA approves a list only if it meets the requirements of 40 CFR 130.7(b). 40 CFR 130.7(d)(2). If EPA approves the listing(s), the state must incorporate the listing(s) into its current Water Quality Management (WQM) plan. If EPA disapproves a listing decision(s), EPA must, not later than 30 days after the date of such disapproval, identify waters for inclusion on the 303(d) list (i.e., add the waters to the list). EPA then must promptly issue a public notice seeking comment on the listing(s). After considering public comment and making any revisions EPA deems appropriate, EPA must transmit the listing(s) to the state, which must incorporate the listing(s) into its WQM plan. 40 CFR 130.7(d)(2).

The statutory and regulatory requirements, and EPA's review of the state's compliance with the requirements, are described in detail in this document. To the extent that any EPA-approved listing decisions are unchanged from prior approved section 303(d) list actions, EPA incorporates the reasoning of those previous list actions unless otherwise noted.

A. Supporting documentation for making listing determinations

EPA regulations at 40 CFR 130.7(b)(6) require states to include, as part of their submissions to EPA, documentation to support the state's determination to list or not to list its waters. Such documentation must include, at a minimum, the information discussed in subsections i through iv, immediately below.

[3] EPA uses this term to reflect the combination of a water segment and an applicable WQS that is not attained or is threatened. For example, if a segment is not meeting three applicable WQS, then there are three WQLS for that segment.
[4] See CWA sections 303(d)(1)(A) and 303(d)(1)(C); 40 CFR 130.7(b)(4); 2006 Integrated Reporting Memorandum, page 60; 2024 Integrated Reporting Memorandum, pages 18-19. The EPA Integrated Reporting Memoranda may be found at https://www.epa.gov/tmdl/integrated-reporting-guidance-under-cwa-sections-303d-305b-and-314.

i. Description of the methodology used to develop the 303(d) list. 40 CFR 130.7(b)(6)(i).

EPA regulations at 40 CFR 130.7(b)(6) require states to include a description of the methodology used to develop the 303(d) list.[5] EPA does not approve or disapprove assessment methodologies. Instead, in acting on 303(d) lists, EPA evaluates whether the state met listing requirements in determining whether applicable WQS are met and included waters requiring TMDLs on its 303(d) list.

EPA finds that California provided a description of its methodologies used for determining whether its waters are achieving the state's WQS, satisfying the regulatory requirement to provide a "description of the methodology used to develop the list." 40 CFR 130.7(b)(6)(i). California's listing methodology is found in the State Water Resources Control Board (SWRCB or State Water Board) Final Staff Report for the 2024 California Integrated Report (SWRCB Final Staff Report) and the SWRCB Water Quality Control Policy for Developing California's CWA Section 303(d) List (SWRCB Listing Policy).[6] EPA has considered the state's methodology as part of its review of the state's 303(d) list.

ii. Description of the data and information used to identify waters. 40 CFR 130.7(b)(6)(ii).

EPA regulations at 40 CFR 130.7(b)(6)(ii) require states to provide a description of the data and information used to identify waters. EPA finds that California provided a description of the data and information that it assembled and evaluated. 40 CFR 130.7(b)(6)(ii). A description of how data were assembled and evaluated is found in Section 2.2 of the SWRCB Final Staff Report. EPA considered the state's description as part of its review of the state's 303(d) list.

iii. A rationale for any decision to not use any existing and readily available data and information for any one of the categories of waters as described in 40 CFR 130.7(b)(5). 40 CFR 130.7(b)(6)(iii).

EPA regulations at 40 CFR 130.7(b)(6)(iii) require states to provide a rationale for any decision to not use any existing and readily available data and information for any one of the categories of waters as described in 40 CFR 130.7(b)(5) and 40 CFR 130.7(b)(6)(iii). EPA evaluates whether a state provides a technical, science-based rationale for decisions not to use data or information in developing the list.[7] EPA finds California provided a rationale for any decision to not use data and information it assembled and evaluated to develop its list. 40 CFR 130.7(b)(6)(iii). The state's process for evaluating readily available data and information is described in Section 6.1 of the SWRCB Listing Policy. The EPA considered the state's rationale as part of its review of the state's 303(d) list.

B. Public participation

EPA regulations require states to provide for public participation in the development of their 303(d) lists, including describing their process for involving the public and other stakeholders in their Continuing Planning Processes (CPPs). 40 CFR 130.7(a). States are expected to demonstrate how they

[5]EPA's Integrated Reporting Memoranda provide more information on assessment methods. See 2006 Integrated Reporting Memorandum at 29.

[6] California's listing methodology is found in the SWRCB Final Staff Report, 2024 California Integrated Report https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2024_integrated_report/draft-2024-IR-staff-report.pdf and SWRCB Water Quality Control Policy for Developing California's CWA Section 303(d) List https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2015/020315_8_amendment_clean_version.pdf

[7] 2024 IR Memo at FN 15 (citing court cases); 2006 IR Memo at 37 (EPA evaluates whether there is a "reasonable technical rationale").

considered public comments in their final decisions. EPA considers the public comments and state responses, as appropriate, in its actions on 303(d) lists in determining whether a state has provided reasoned support for its submission. See 2006 IR Memo at 25-26.

California's 2024 303(d) list submission to EPA included a summary of public comments and the state's responses to comments. The state requested the submission of water quality data through a public solicitation period that ran from June 29, 2020 to October 16, 2020 (see Section C below). The public comment period for the 2024 303(d) list and draft staff report began on February 16, 2023, and closed on April 3, 2023. On March 21, 2023, prior to the close of the public comment period, the State Water Board held a hearing to receive oral comments on the 2024 303(d) list. The State Water Board distributed a Summary of Comments and Responses along with the Proposed Final 2024 California Integrated Report and Proposed Final Staff Report on January 4, 2024.

The State Water Board adopted the Integrated Report on February 6, 2024. All notices for public participation, response to comments, and informational materials are found on the State Water Board 2024 Integrated Report webpage.[8]

EPA concludes that California provided opportunity for public comment on its 303(d) list consistent with 40 CFR 130.7(a) and California's Continuing Planning Process and the state demonstrated how it considered public comments in its final decision.

C. Assembling, evaluating, and using data and information

i. Assemble and evaluate data and information

States must assemble and evaluate all existing and readily available water quality-related data and information to develop the 303(d) list. 40 CFR 130.7(b)(5). In reviewing a state's 303(d) list submission, EPA considers whether the state has satisfied the requirements under 40 CFR 130.7(b)(5) to assemble and evaluate all existing and readily available water quality-related data and information when developing their 303(d) lists. This includes, at a minimum, all existing and readily available data and information about the following categories of waters: (1) waters identified as partially meeting or not meeting designated uses, or as threatened, in the state's most recent CWA Section 305(b) report; (2) waters for which dilution calculations or predictive modeling indicate non-attainment of applicable water quality standards; (3) waters for which water quality problems have been reported by local, state, and federal agencies; members of the public; academic institutions (these organizations and groups should be actively solicited for research they may be conducting or reporting); and (4) waters identified as impaired or threatened in any CWA section 319 nonpoint source assessment submitted to EPA. In addition to these minimum categories, states are required to assemble and evaluate any other water quality-related data and information that is existing and readily available. 40 CFR 130.7(b)(5).

EPA has reviewed the state's submission, including the state's description of the data and information that it assembled and evaluated and finds that the state satisfied the requirement to assemble and evaluate all existing and readily available water quality-related data and information to develop its list

[8] California 2024 Integrated Report webpage, including notices for public participation, response to comments, and informational materials is https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2024-integrated-report.html.

under 40 CFR 130.7(b)(5). The state requested the submission of water quality data through a public solicitation period that ran from June 29, 2020 to October 16, 2020. In addition to the public solicitation sources of data used for the 2024 IR, the data included the following:

- The 2020-2022 California Integrated Report and its supporting data and information
- California Environmental Data Exchange Network (CEDEN) data
- Surface Water Ambient Monitoring Program (SWAMP) data
- Irrigated Lands Regulatory Program monitoring data
- Southern California Coastal Water Research Project (SCCWRP) data
- San Francisco Estuary Institute (SFEI) Regional Monitoring Program data
- California Integrated Water Quality System Project (CIWQS) data, which includes receiving water monitoring data from discharger monitoring reports
- National Water Quality Portal (WQP) that includes federal USGS, U.S. EPA, and tribal data
- Data from citizen monitoring groups, academic institutions, and other data providers
- Data and information submitted through the California Integrated Report Upload Portal
- Existing internal Water Board data and reports
- Other sources of data and information that became readily available to Water Board staff, such as fish and shellfish advisories, beach postings and closures; reports of fish kills, cancers, lesions, or tumors; and reports of dog deaths associated with water contact

ii. Use of data and information

States must use existing and readily available water quality-related data and information in developing the 303(d) list, 40 CFR 130.7(b)(5), unless they provide a rationale not to use them, 40 CFR 130.7(b)(6)(iii). EPA evaluates whether a state provides a technical, science-based rationale for decisions not to use data or information in developing the list.[9]

EPA evaluated whether California provided a technical, science-based rationale for any decisions not to use existing and readily available water quality-related data or information to make a WQS attainment status determination and concluded the state provided such a rationale for the purposes of 40 CFR 130.7(b)(6)(iii). Section 2.2.2 in the Final Staff Report describes California's data and information quality review. The state gave technical rationale for not using some data that were submitted on ocean acidification (Section 3.10.2) and temperature (Section 5.1.2.1). The state also detailed technical rationale for not using various datasets due to data quality concerns (Section 7.2 and Section 10.1.4). The state also addressed commenter concerns about data not used for assessments in Section 3 of the Summary of Comments and Responses document.

D. Identification of waters for inclusion on the 303(d) list

As noted above, EPA regulations at 40 CFR 130.7(b)(6) require states to provide documentation to support the state's determination to list or not to list its waters. The EPA has reviewed the state's submission, including its assessment methodology and additional supporting documentation for its listing determinations.

[9] See FN 7.

States report to EPA the water quality standard attainment status of assessed waters as one of five assessment categories. Impaired waters that are included on the 303(d) list are reported as Category 5 WQLSs.

Five Integrated Report Categories	
Category 1	All designated uses are supported, no use is threatened.
Category 2	Available data and/or information indicated that some, but not all of the designated uses are supported.
Category 3	There is insufficient available data and/or information to make a use support determination.
Category 4	One or more designated uses are impaired or threatened but establishment of a TMDL is not required for the particular cause.
Category 5	Available data and/or information indicate that at least one designated use is not being support or is threatened, and a TMDL is needed.

i. Approval of identification of waters for inclusion on the 303(d) list

EPA determined that California's 2024 303(d) list encompasses waters consistent with the CWA 303(d) and 40 CFR 130.7 requirements and approves all waters the state included on the 303(d) list. The EPA's approval of the waters on the 303(d) list is based on EPA's review of the state's submission including the description of the data and information concerning individual waters, documentation to support decisions to rely or not rely on particular data and information, and a description of how data and information were applied to make WQS attainment status determinations. EPA also considered applicable public comments and responses.

The state added 636 new waterbody-pollutant impairment listings to California's 2024 303(d) list compared to its 2020-2022 list. New listings are shown in the 2024 IR, Appendices I and J, and summarized in Tables 1 and 2 below. Fact sheets that describe the lines of evidence used to justify each WQLS listing are found in the 2024 IR, Appendix B.

Table 1. Number of new listings and delistings by region in California's 2024 303(d) list

Region	New Listings	Delistings	Total 303(d) Listings
North Coast	0	0	217
San Francisco Bay	133	0	476
Central Coast	29	3	1,200
Los Angeles	334	37	1,215
Central Valley	95	57	1,246
Lahontan	0	0	256
Colorado River Basin	0	0	110
Santa Ana	45	1	183
San Diego	0	3	839
TOTALS	636	101	5,742

Table 2. Number of new listings and delistings by pollutant in California's 2024 303(d) list

Region	New Listings	Delistings
Pesticides	222	36
Metals	147	18
Pathogens, Bacteria	79	7
Nutrients	50	11
Other	40	3
Toxicity	32	6
Toxic organics	26	3
Salinity, TDS, chlorides	16	9
Temperature	12	4
pH	12	4
TOTALS	636	101

ii. Approval of exclusion of waters identified on previous 303(d) lists

California's 2024 303(d) list submission removed 101 WQLSs from its list. The delistings and justification for removal are shown in Appendices I and J of the 2024 IR. Fact sheets that describe the lines of evidence used to justify each WQLS delisting are found in the 2024 IR, Appendix B. EPA reviewed the fact sheets and lines of evidence for each delisting and found the state demonstrated good cause for not including the 101 WQLS on the 2024 303(d) list. The state delisted waterbodies for the following reasons: 1) Numeric data do not exceed water quality standards more than the prescribed number of times as specified in California's Listing Policy; 2) a listing was shown to be based on erroneous data or analysis and corrected; 3) Water quality standards were revised and water quality is attaining the updated standards; 4) the weight of evidence demonstrates that a water quality standard is attained; and 5) new assessment methodology shows water quality standards are attained. EPA reviewed the state's 2024 303(d) list and carefully considered the state's decision to remove WQLSs from the 303(d) list submission, its justification for those removals, any applicable comments and responses, and the methodology used in making those decisions.

Consistent with EPA's regulations at 40 CFR 130.7(b), the state appropriately moved previously listed waters to Category 4a of the IR where an EPA-approved TMDL is now in place.

EPA concludes that, with the exception of the waterbodies detailed below in Section D.iii, the decisions to remove WQLS identified as part of the 303(d) list are reasonable and justified and are based on all existing and readily available water quality-related data and information, applicable WQS, and sound science.

iii. Disapproval and identification of additional waters for inclusion on the list

EPA determined the following WQLSs were omitted from the state's 2024 303(d) list, therefore EPA is partially disapproving the state's 2024 303(d) list and is identifying 53 WQLSs for inclusion on the list. EPA finds that the state did not provide an approvable basis for excluding nine WQLSs from the 303(d) list that were incorrectly classified as Category 4b and 44 WQLSs that were incorrectly classified as Category 3 for benthic community effects, as detailed below.

Waterbodies incorrectly classified as Category 4b

The 2024 IR erroneously placed nine waterbody-pollutant combinations into Category 4b that should be placed on the 303(d) list (Category 5) (Table 3). The state prepared advance restoration plans (ARPs) to improve water quality for these WQLS, however advance restoration plans are not approved by EPA as regulatory alternatives to TMDLs that have pollution control requirements consistent with EPA's regulations at 40 CFR 130.7(b)(1). Therefore, these WQLS still require TMDLs and Category 4b is not the appropriate classification for these nine WQLS. Listed waters for which the state pursues an ARP must remain on the 303(d) list (Category 5) until water quality standards are attained, TMDLs or regulatory alternatives to TMDLs are approved by EPA, or no pollutant is found to cause or contribute to the impairments.

Table 3. WQLS identified by EPA for inclusion of the 2024 303(d) List.

Waterbody Name	**Assessment Unit ID**	**Parameter Name**	**Reason for disapproval**
San Diego Bay	CAB9101000019990210132422	Polychlorinated Biphenyls (PCBs)	Does not meet Cat. 4b requirements
San Diego Bay Shoreline, at Harbor Island	CAB90821000200212301129 26	Copper	Does not meet Cat. 4b requirements
San Diego Bay Shoreline, Downtown Anchorage	CAB9082100019990210091816	Toxicity	Does not meet Cat. 4b requirements
San Diego Bay Shoreline, Downtown Anchorage	CAB9082100019990210091816	Benthic Community Effects	Does not meet Cat. 4b requirements
San Diego Bay Shoreline, near Chollas Creek	CAB9082200019990210102831	Toxicity	Does not meet Cat. 4b requirements
San Diego Bay Shoreline, near Chollas Creek	CAB9082200019990210102831	Benthic Community Effects	Does not meet Cat. 4b requirements
San Vicente Creek	CAR2022101220010905121128	Pathogens	Does not meet Cat. 4b requirements
Fitzgerald Marine Reserve at Moss Beach	CAC2022100020190104026259	Pathogens	Does not meet Cat. 4b requirements

Waterbodies incorrectly classified as Category 3 for benthic community effects

California's 2024 IR placed 44 waterbodies into Category 3 that should be placed on the 303(d) list (Category 5) for benthic community effects (Appendix A) because the applicable water quality standard, which includes waterbody uses, is impaired. 40 CFR 130.7(b)(3). California evaluates natural benthic invertebrate communities to directly assess the biological integrity of its waters. The state uses the California Stream Condition Index (CSCI) to score the biological condition of rivers and streams (SWRCB Staff Report, Mazor et al. 2016).[10] The CSCI provides a numeric evaluation guideline to directly assess the attainment of aquatic life beneficial uses for Cold Fresh Water Habitat (COLD) and Warm Fresh Water Habitat (WARM). These designated uses are defined by the state as "uses of water that support (COLD or WARM) water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates." All 44

[10] Mazor et al. 2016. *Freshwater Science* 35: 249-271.

waterbodies have either COLD or WARM beneficial use designations (Appendix A). In addition, relevant narrative water quality standards are described in Appendix B.

In California's 2024 IR, the state identified 44 waterbodies where new CSCI data indicated "significant degradation" in benthic macroinvertebrate communities along with at least one pollutant impairment. SWRCB Listing Policy, Section 3.9. California's listing policy requires that the significant biological degradation be "associated" with a pollutant in order to list a waterbody based on bioassessment data (SWRCB Listing Policy, Section 3.9). In previous IR cycles, the state placed waterbodies on the 303(d) list (i.e. in Category 5) for benthic community effects when the waterbody exhibited significant degraded biology and had at least one pollutant impairment. [11] However, in the 2024 IR, the state placed 44 waterbodies that met these listing conditions into Category 3. California's rationale for placing them in Category 3 is that the state is developing an evaluation approach for determining whether pollutant impairments are potentially causing the degraded biology. The state received several public comments that were both in support and in opposition to the exclusion of the 44 waterbodies from the 303(d) list and placement into Category 3 until the state develops the methodology.

EPA disagrees with the state's rationale for placing the 44 waterbodies in Category 3 and excluding them from the 303(d) list for benthic community effects for several reasons. First, a WQLS must be on the 303(d) list and requires a TMDL unless the state can demonstrate that no pollutant(s) causes or contributes to the impairment.[12] As discussed in EPA's March 31, 2023 public comment letter on California's draft 2024 IR (Appendix C), EPA does not agree that an association between degraded benthic macroinvertebrate communities and at least one pollutant must be demonstrated as a condition to include a waterbody as impaired for benthic community effects on the 303(d) list. If a designated (beneficial) use is not supported and the waterbody is impaired or threatened, the fact that the specific pollutant may not be known does not provide a basis for excluding the water from the section 303(d) list.[13] States should include impaired and threatened waters in Category 5 when a water is shown to be impaired or threatened by biological assessments used to evaluate aquatic life uses or narrative or numeric criteria adopted to protect those uses, even if the specific pollutant is not known.[14] Prior to establishing a TMDL for such waters, the pollutant causing the impairment would need to be identified. Waterbodies with biological impairments should be included on the 303(d) list until the pollutant is identified and a TMDL completed, or the state demonstrates that no pollutant(s) cause or contribute to the impairments.

Second, the lack of a formalized methodology by itself is not a basis to decline to evaluate available data or information for developing the 303(d) list. The state's rationale is that "the methodology to associate the pollutant impairment with the degraded biology is not yet developed." This is not a sufficient rationale. California concluded that new data and information indicated degraded biological communities for the 44 waterbodies in Appendix A (SWRCB Staff Report, p. 64). EPA reviewed the

[11] California 2018 IR https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2018_integrated_report.html, California 2020-2022 IR https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2020_2022_integrated_report.html.
[12] See FN 4.
[13] 2006 IR Memo at 60.
[14] 2002 IR Memo at 11.

datasets on CSCI scores for the 44 waterbodies and agrees that the numeric evaluation guideline is not met for attaining the aquatic life designated use. These waters should be included on the 303(d) list for benthic community effects, regardless of whether the associated pollutants are known.[15] EPA is therefore adding the 44 waterbodies to California's list for benthic community effects. These waterbodies must remain on the 303(d) list until the state identifies the causal pollutants and completes TMDLs for these pollutants or the state demonstrates that no pollutants are causing or contributing to the benthic community impairments.

E. Identification of pollutants causing or expected to cause a violation of applicable WQS (130.7(b)(4))

As part of their 303(d) lists, states are required to identify the pollutants causing or expected to cause violations of the applicable WQS. 40 CFR 130.7(b)(4). This includes a pollutant that by itself or in combination with other pollutants causes or is expected to cause violations of applicable WQS. As described in the 2024 IR Memo, where available data and information do not support the identification of a pollutant, a state can identify the pollutant as "unknown" and reassess that determination when additional data and information become available. 2024 IR memo at 18.

California identifies pollutants causing or expected to cause violations in WQS for each waterbody on the state's 303(d) list that EPA has approved (2024 IR, Appendix J). Consistent with 40 CFR 130.7(b)(4), EPA finds California appropriately identified the pollutants that were causing or expected to cause a violation of the applicable WQS. EPA encourages the state to reassess and potentially refine pollutants that cause impairments when additional data and information become available.

For the 44 waterbodies EPA has identified for inclusion on the state's 2024 303(d) list for impaired designated use based on benthic community effects data (Appendix A), the available data and information did not support identification of specific pollutants causing or expected to cause the exceedance, therefore the pollutant is identified as "unknown."

F. Priority ranking and two-year TMDL development (130.7(b)(4))

The CWA and EPA's regulations require states to establish a priority ranking for the waters on their 303(d) list "taking into account the severity of the pollution and the uses to be made of such waters." CWA section 303(d)(1)(A); 40 CFR 130.7(b)(4). The regulations at 40 CFR 130.7(b)(4) provide that this priority ranking must include "all listed water quality limited segments still requiring TMDLs" and further require that states submit their priority rankings to EPA as a component of their biennial CWA 303(d) lists. Additionally, the regulations require that the priority ranking identify the waters targeted for TMDL development in the next two years. 40 CFR 130.7(b)(4).

California's description of how all listed WQLSs are prioritized for TMDL development, including identification of waters targeted for TMDL development in the next two years, is included within the state's 303(d) list submission. In addition, California described how its priority ranking took into account the severity of pollution and the uses to be made of such waters. Each Regional Water Board reviews its listings and prioritizes TMDLs or other control efforts for completion based on factors

[15] For listed waters, if the available data and information do not support identification of pollutants causing or expected to cause the exceedance, list submissions would identify the pollutant as "unknown." See 2024 IR Memo at 18.

described in Section 5 of California's Listing Policy, including the severity of pollution, importance and extent of designated uses, endangered species concerns, potential threat to human health, degree of public concern, and potential for designated use protection and recovery.

EPA's review of California's submission finds that the state established a priority ranking for all waters on the 303(d) list, taking into account the severity of the pollution and the uses to be made of such waters.[16] In addition to the priority rankings, the state identified the waters targeted for TMDL development in the next two years.

G. Tribal Consultation by EPA

EPA's policy is to consult on a government-to-government basis with federally recognized tribal governments when EPA actions and decisions may affect Tribes. To promote coordination and consultation, all Tribes that may be affected by EPA's upcoming action on the state's 303(d) list were identified, notified of the upcoming state's list submission for EPA action, and offered the opportunity to engage in consultation with EPA. On October 16, 2023, EPA offered consultation by letter to 117 federally recognized tribes that are located within or bordering California. Consultation and coordination were conducted consistent with EPA's Policy on Consultation with Indian Tribes.[17] No Tribes requested consultation on EPA's review of California's 2024 list.

3. Summary of EPA's decision on the 2024 303(d) list

After careful review of California's final 303(d) list submission package, EPA determined that California's 2024 303(d) list partially meets the requirements of section 303(d) of the CWA and EPA's implementing regulations. Therefore, EPA partially approves and partially disapproves California's 2024 303(d) list. EPA will seek public comment for 30 days on the inclusion of 53 impairments it has identified for inclusion on California's 2024 303(d) list.

[16] In addition to these two statutory factors, states may also consider other factors when prioritizing TMDLs. See 57 Fed. Reg. 33040, 33,044-45 (July 24, 1992).

[17] www.epa.gov/system/files/documents/2023-12/epa-policy-on-consultation-with-indian-tribes-2023.pdf

Appendix A

Waterbodies added to California's 2024 303(d) list for designated (beneficial) use impairment based on benthic community effects data.

Water Body Name	Water Body ID	Beneficial Use	Regional Board Basin Plan
Alameda Creek	CAR2043005119990218134634	COLD	San Francisco Bay
Arroyo Las Positas	CAR2043008020010905115005	COLD	San Francisco Bay
Arroyo Mocho	CAR2043008020010905115519	COLD	San Francisco Bay
Arroyo Seco subwatershed (Alameda County, tributary to Arroyo Las Positas)	CAR2043009020210603047098	COLD	San Francisco Bay
Codornices Creek	CAR2033001120080624162950	COLD	San Francisco Bay
Coyote Creek (Santa Clara Co.)	CAR2053002119990218112824	COLD	San Francisco Bay
Grayson Creek	CAR2073301020080624163514	COLD	San Francisco Bay
Guadalupe River	CAR2054005019980928160437	COLD	San Francisco Bay
Kirker Creek	CAR2073104020080624164244	WARM	San Francisco Bay
Las Trampas Creek subwatershed (Contra Costa County, tributary to Walnut Creek)	CAR2073201120110723171335	COLD	San Francisco Bay
Laurel Creek (San Mateo County)	CAR2044003319990218111511	WARM	San Francisco Bay
Laurel Creek (Solano County)	CAR2072300020110723181321	COLD	San Francisco Bay
Los Gatos Creek, Lower	CAR2054005020171207059470	COLD	San Francisco Bay
Mt. Diablo Creek	CAR2073104019990217163214	COLD	San Francisco Bay
Permanente Creek	CAR2055002119990218132449	COLD	San Francisco Bay
Petaluma River	CAR2063002019980928165716	COLD	San Francisco Bay
Pilarcitos Creek (below Pilarcitos Reservoir)	CAR2022201120020530213424	COLD	San Francisco Bay
San Antonio Creek (Marin/Sonoma Co)	CAR2063003019990218113646	COLD	San Francisco Bay
San Leandro Creek, Lower	CAR2042001219990218140451	COLD	San Francisco Bay
San Mateo Creek, Lower	CAR2044003320090202015405	COLD	San Francisco Bay
San Ramon Creek subwatershed (Contra Costa County, tributary to Walnut Creek)	CAR2073202020210622039052	WARM	San Francisco Bay
San Tomas Aquinas Creek (Santa Clara County)	CAR2055004020080624165713	COLD	San Francisco Bay
Saratoga Creek	CAR2055004019990218133956	COLD	San Francisco Bay
South San Ramon Creek subwatershed (Contra Costa and Alameda counties, Tributary to Arroyo de la Laguna)	CAR2043007020210702040004	WARM	San Francisco Bay
Stevens Creek	CAR2055002019990218134341	COLD	San Francisco Bay
Unnamed Creek, Zone 6 Line G subwatershed (Alameda County, tributary to Laguna Creek)	CAR2052000020210704059748	WARM	San Francisco Bay
Walnut Creek	CAR2073104019990218110904	COLD	San Francisco Bay
Calleguas Creek Reach 4 (Revolon Slough)	CAR4031100019990202140512	WARM	Los Angeles
Santa Clara River Reach 5 (Blue Cut gaging station to West Pier Hwy 99 Bridge) (was named Santa Clara River Reach 7 on 2002 303(d) list)	CAR4035100019990203102901	WARM	Los Angeles
Santa Clara River Reach 6 (W Pier Hwy 99 to Bouquet Cyn Rd) (was named Santa Clara River Reach 8 on 2002 303(d) list)	CAR4035100019990204123459	WARM	Los Angeles
Santa Clara River Reach 11 (above Santa Felicia Dam)	CAR4034100020020131113814	COLD	Los Angeles

Water Body Name	Water Body ID	Beneficial Use	Regional Board Basin Plan
Kaseberg Creek (tributary to Pleasant Grove Creek, Placer County)	CAR5192200020070510154406	COLD	Central Valley
Kaseberg Creek, unnamed eastern tributary (from Green Grove Ln to Del Webb Blvd)	CAR5192200020120321143734	COLD	Central Valley
Kaseberg Creek, unnamed southeastern tributary (from Silverado Middle School to Timber Creek Golf Course, Placer County)	CAR5192200020120321144035	COLD	Central Valley
Kaseberg Creek, unnamed southern tributary (from Baseline Road to Timber Creek Golf Course, Placer County)	CAR5192200020120323142726	COLD	Central Valley
Pleasant Grove Creek	CAR5192200020070510150258	COLD	Central Valley
Pleasant Grove Creek, South Branch	CAR5192200020070510153551	COLD	Central Valley
Pleasant Grove Creek, unnamed northern tributary (from Greywood Circle to confluence with Pleasant Grove Creek)	CAR5192200020120323141359	COLD	Central Valley
Pleasant Grove Creek, unnamed northern tributary (from Mt Tamalpais Dr to confluence with Pleasant Grove Creek)	CAR5192200020120321144312	COLD	Central Valley
Perris Valley Storm Drain	CAR8021100020110809102021	COLD	Santa Ana
San Jacinto River, Reach 1 (Lake Elsinore to Canyon Lake (Railroad Canyon Reservoir)	CAR8023100020110810111200	WARM	Santa Ana
Santa Ana River, Reach 2	CAR8011300019991014130438	WARM	Santa Ana
Santa Ana River, Reach 3	CAR8012100019990211140353	WARM	Santa Ana
Silverado Creek	CAR8011200019990211132556	COLD	Santa Ana

Appendix B

California's applicable narrative water quality standards (objectives) for benthic community effects.

San Francisco Bay Region Basin Plan[18]

All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce significant alterations in population or community ecology or receiving water biota. In addition, the health and life history characteristics of aquatic organisms in waters affected by controllable water quality factors shall not differ significantly from those for the same waters in areas unaffected by controllable water quality factors.

Los Angeles Region Basin Plan[19]

All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, bioassays of appropriate duration or other appropriate methods as specified by the State or Regional Board.

Central Valley Region Basin Plan[20]

All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life. This objective applies regardless of whether the toxicity is caused by a single substance or the interactive effect of multiple substances. Compliance with this objective will be determined by analyses of indicator organisms, species diversity, population density, growth anomalies, and biotoxicity tests of appropriate duration or other methods as specified by the Regional Water Board.

Santa Ana River Basin Plan[21]

Inland surface water communities and populations, including vertebrate, invertebrate, and plant species, shall not be degraded as a result of the discharge of waste. Degradation is damage to an aquatic community or population with the result that balanced community no longer exists. A balanced community is one that is (1) diverse, (2) has the ability to sustain itself through cyclic seasonal changes, (3) includes necessary food chain species, and (4) is not dominated by pollution-tolerant species, unless that domination is caused by physical habitat limitations. A balanced community also (5) may include historically introduced non-native species, but (6) does not include species present because best available technology has not been implemented, or (7) because site-specific objectives have been adopted, or (8) because of thermal discharges.

[18] San Francisco Bay Region Basin Plan https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html
[19] Los Angeles Region Basin Plan https://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/
[20] Central Valley Region Basin Plan https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/#basinplans
[21] Santa Ana River Basin Plan https://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

Submitted by Email only

Courtney Tyler
Acting Clerk to the State Water Board
State Water Resources Control Board
commentletters@waterboards.ca.gov

Re: Comment Letter – 2024 California Integrated Report

Dear Courtney Tyler:

The US Environmental Protection Agency (EPA) reviewed the draft 2024 California Integrated Report: Surface Water Quality Assessments to comply with Clean Water Act Sections 303(d) 305(b) and 303(d), dated February 16, 2023.

Assessment of Benthic Community Effects

The draft Staff Report explains that for the 2024 California Integrated Report there were 44 waterbodies where new data and information indicate degraded benthic macroinvertebrate communities and the waterbody has at least one pollutant impairment. However, California did not list these waterbodies for benthic community effects on the 303(d) list because "the methodology to associate the pollutant impairment with the degraded biology is not yet developed".

EPA does not agree that an association between degraded benthic macroinvertebrate communities and at least one pollutant should be demonstrated as a condition to include a waterbody as impaired for benthic community effects on the 303(d) list. As discussed in EPA's 2006 Integrated Reporting memo, if a designated (beneficial) use, such as aquatic life, is not supported and the water is impaired or threatened, the fact that the specific pollutant may not be known does not provide a basis for excluding the water from the section 303(d) list.[1] These waters must be included on the list until the pollutant is identified and a TMDL completed or the state can demonstrate that no pollutant(s) cause or contribute to the impairment.[1] In this case, applicable beneficial uses are cold fresh water habitat (COLD) and warm fresh water habitat (WARM) uses that support aquatic ecosystems, including preservation or enhancement of aquatic habitats or wildlife, including invertebrates.[2]

California must include waterbodies for benthic community effects on the 303(d) list when data and information show significant degradation in macroinvertebrate communities regardless of whether an

[1] U.S. EPA, Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act, 60, https://www.epa.gov/sites/default/files/2015-10/documents/2006irg-report.pdf

[2] State Water Resources Control Board, Draft Staff Report - 2024 California Integrated Report, 24-25, https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2024_integrated_report/draft-2024-IR-staff-report.pdf.

association with a specific pollutant has been demonstrated. The process of associating degraded biology with pollutants can happen after the waterbody is listed as impaired for benthic community effects. In future listing cycles, a waterbody can be removed from the 303(d) list and placed on the Integrated Report in Category 4c if the assessment of new data and information demonstrates that the biological degradation is not associated with a pollutant and is attributable only to other types of pollution (e.g., flow or habitat alteration).[3,4] EPA's 2024 Integrated Reporting memo discusses best practices for identifying the pollutants causing or expected to cause an impairment and states "If the available data and information do not support identification of pollutants causing or expected to cause the exceedance, identify the pollutant as 'unknown' and reassess that determination when additional data and information become available. Subsequent lists provide opportunities to identify pollutants that were previously not known.".[5]

Use of the term "TMDL Alternative"

EPA discourages use of the term "TMDL Alternative" to refer to "5-alt" or "Alternative Restoration Plans". EPA uses "TMDL Alternative" to refer to pollution control requirements that obviate the need for a TMDL and are approved by EPA as Category 4b waters. The Staff Report correctly states that the legal obligation to develop a TMDL is not eliminated for waters with "5-alt" plans because these waters remain on the 303(d) list and still require a TMDL until water quality standards are achieved. In EPA's 2024 Integrated Report memo, EPA recommends replacing the term "Alternative Restoration Plan" with "Advance Restoration Plan" and recommends use of Subcategory 5r instead of the previously-recommended Subcategory 5-alt to improve public transparency and avoid confusion.[6]

Sincerely,
/s/ March 31, 2023

Eric Dubinsky
Life Scientist, Water Division

[3] U.S. EPA, Guidance for 2006 Assessment, 60.

[4] U.S. EPA, Information Concerning 2016 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions, 13-15, https://www.epa.gov/sites/default/files/2015-10/documents/2016-ir-memo-and-cover-memo-8_13_2015.pdf.

[5] U.S. EPA, Information Concerning 2024 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions, 18, https://www.epa.gov/system/files/documents/2023-03/2024IRmemo_032923.pdf.

[6] U.S. EPA, Information Concerning 2024 Integrated Reporting, 5-6.