



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

Via email only

Eileen Sobeck
Executive Director
State Water Resources Control Board
1001 I Street
Sacramento, California 95814

Subject: California's 2020-2022 Integrated Report

Dear Executive Director Sobeck:

I am pleased to approve the State of California's Clean Water Act (CWA) section 303(d) 2020-2022 List of Impaired Waters. The 2020-2022 List appropriately includes water quality-limited segments (WQLS) and associated pollutants requiring total maximum daily loads (TMDLs) consistent with CWA section 303(d) and 40 C.F.R. Part 130.7.

Supported by robust science and stakeholder outreach, California's 2020-2022 Integrated Report includes the required water quality assessment and list of impaired water bodies needing TMDLs. EPA's review and rationale for approval is further described in the enclosure.

I look forward to our continued partnership to protect California's water quality and advance human health and wildlife protection. Please call me if you would like to discuss further, or your staff may contact Terry Fleming at (415) 972-3462 with specific questions concerning this approval.

Sincerely,

Tomás Torres
Director, Water Division

Enclosure

cc: Rebecca Fitzgerald, SWRCB Department of Water Quality

Enclosure

EPA Review of California’s 2020-2022 CWA Section 303(d) List

I. Purpose

Section 303(d) of the Clean Water Act (CWA) requires each state and territory to “identify those waters within its boundaries for which [current pollution control technologies] ... are not stringent enough to meet water quality standard applicable to such waters.” This list is referred to as the Impaired Waters List, 303(d) List or Category 5 (see Five Integrated Report Categories table below).¹ In addition to the section 303(d) List, states are required to submit CWA section 305(b) water quality reports that provide information on the water quality status of all waters in the state. EPA recommends that states combine the section 305(b) report and section 303(d) List into a single “Integrated Report” (IR). EPA reviews CWA 305(b) reports but is only required to approve or disapprove CWA 303(d) Lists. EPA reviews Integrated Report submittals for consistency with the CWA and its implementing regulations, as well as EPA Guidance addressing assessment, listing, and reporting requirements under CWA sections 303(d), 305(b) and 314 (see References).

This document describes EPA’s rationale for approval of the State’s 2020-2022 List (see State Board Final Staff Report, Appendix A: 2020-2022 303(d) List of Impaired Waters, Appendix B: Statewide Waterbody Fact Sheets, and Appendices I, J, K, L). EPA received the State Board’s submittal: *California 2020-2022 Water Quality Integrated Report* (2020-2022 Integrated Report) in EPA’s ATTAINS database on April 1, 2022. EPA reviewed the submittal containing the State’s 2020-2022 CWA section 303(d) List (2020-2022 List), listing decisions, assessment methodology, and supporting data.

II. Statutory and Regulatory Background

A. Identification of WQLSs for Inclusion in the List

CWA section 303(d)(1) directs each state to identify those waters within its jurisdiction for which effluent limitations required by CWA section 301(b)(1)(A) and (B) are not stringent enough to achieve applicable water quality standards, and to establish a priority ranking for addressing such waters, taking into account the severity of the pollution and the designated uses of such waters. CWA section 303(d) listing requirements apply to waters impaired by both point sources and nonpoint sources of pollution.

As provided at 40 C.F.R. § 130.7(b)(1), a state need not include WQLSs in its 303(d) List of impaired waters requiring a TMDL (Category 5) when specific circumstances exist. Such WQLSs are included in Category 4 as follows:

- Category 4a: A TMDL to address a specific segment/pollutant combination has been approved or established by EPA.
- Category 4b: A use impairment caused by a pollutant is being addressed by the state through other pollution control requirements.
- Category 4c: A use is impaired, but the impairment is not caused by a pollutant.

¹ U.S. Environmental Protection Agency. 2005. “Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act,” Diane Regas, EPA Office of Wetlands, Oceans and Watersheds, Washington, D.C.

EPA does not act on Category 4 however EPA guidance² does provide examples of the types of information that could readily be used to identify impairment due to non-pollutant pollution, including flow, such as visual assessment, USGS StreamStats, gage data, remote sensing, or dam inventories. While states are encouraged to include non-pollutant impairments to improve the opportunities for increasing resilience and restoration of these waters, such inclusion is not required by the CWA.

B. Consideration of Existing and Readily Available Water Quality-Related Data and Information

EPA regulations require each state to “assemble and evaluate all existing and readily available water quality-related data and information to develop the list” and provide a rationale, subject to EPA approval, for any decision not to use existing and readily available data and information. 40 C.F.R. § 130.7(b).

The regulations at 40 C.F.R. § 130.7(b)(5) specify that this requirement includes, but is not limited to, all the existing and readily available data and information about the following categories of waters:

- Waters identified as partially meeting or not meeting designated uses or as threatened in the state’s most recent CWA section 305(b) report.
- Waters for which dilution calculations or predictive modeling indicate nonattainment of applicable standards.
- Waters for which water quality problems have been reported by governmental agencies, members of the public, or academic institutions.
- Waters identified as impaired or threatened in any CWA section 319 nonpoint source assessment submitted to the EPA.

Pursuant to 40 C.F.R. § 130.7(b)(6), each state must include, as part of its submittal to EPA, documentation to support decisions to rely or not rely on particular data and information, and decisions to list or not list waters. Such documentation needs to include, at a minimum, the following information: (1) a description of the methodology used to develop the list; (2) a description of the data and information used to identify waters; and (3) any other reasonable information requested by EPA.

C. Priority Ranking

EPA regulations at 40 C.F.R. § 130.7(b)(4) also require each state to prioritize WQLSs for TMDL development, and to specifically identify those targeted for TMDL development in the next two years. In prioritizing and targeting waters, each state must, at a minimum, take into account the severity of the pollution and the uses of such waters. CWA section 303(d)(1)(A). A state may consider other factors including immediate programmatic needs including vulnerable aquatic habitats, recreational, economic,

² U.S. Environmental Protection Agency. 2015. “Information Concerning 2016 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions,” Benita Best-Wong, Office of Wetlands, Oceans, and Watersheds, August 13, 2015.

and aesthetic importance, degree of public interest and support, and state or national policies and priorities.^{3,4}

III. Analysis of Submittal

A. Identification of WQLSs for Inclusion in the List

EPA has reviewed the State's submittal and concludes the 2020-2022 List is in compliance with CWA section 303(d) and 40 C.F.R. § 130.7.

California based its 2020-2022 List on its analysis of whether readily available data and information indicated that additions to or deletions from its 2018 List were necessary (*California 2018 Water Quality Integrated Report*). The State's approach, wherein previously listed waters remain WQLSs unless the existing and readily available water quality-related data no longer indicate impairment, is consistent with federal requirements. EPA finds it was reasonable for the State to include the previously listed waters on its 2020-2022 List. The State also added new listings based on review of data.

B. Assembly of Data

EPA evaluated whether the State reasonably considered existing and readily available water quality-related data and information and reasonably identified waters required to be listed. EPA finds the State's data compilation process was clear and provided an adequate basis for assessments.

The State compiled data and information from multiple sources, including those identified at 40 C.F.R. § 130.7(b)(5)(iii). The State requested the submittal of water quality data through a public solicitation period that ran from December 14, 2018 to June 14, 2019. In addition to the public solicitation sources of data used for the 2020-2022 Integrated Report, the data included the following:

- The 2018 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 data
- San Francisco Estuary Institute's Regional Monitoring Program data
- Fish and shellfish advisories; beach postings, advisories, and closures; or other water quality-based restrictions
- Reports of fish kills, cancers, lesions, or tumors
- Reports of dog deaths associated with water contact
- Existing and readily available water quality data and information reported by local, state, and federal agencies (including receiving water monitoring data from discharger monitoring reports), citizen monitoring groups, academic institutions, and the public
- National Water Quality Portal ("WQP") for federal USGS, U.S. EPA, and tribal data
- Existing internal Water Board data and reports
- Other sources of data and information that became readily available to Water Board staff

³ U.S. Environmental Protection Agency. 1992. July 24, 1992 Federal Register and 40 C.F.R. Parts 122, 123, 130, revision of regulation, 57 Fed. Reg. 43 pp. 33040.

⁴ U.S. Environmental Protection Agency. 1991. "Guidance for Water Quality-Based Decisions: The TMDL Process," Office of Water. EPA 440/4-91-001.

In its draft 2020-2022 List California proposed to list 65 waters as impaired for aluminum using EPA’s 1988 Recommended aluminum criteria as an interpretation of their narrative aquatic life protection water quality standard. The State received public comments suggesting the State use EPA’s 2018 national recommended aluminum criteria because it is more scientifically defensible. In response to this comment California decided not to identify these waters as impaired for aluminum in its Final 2020-2022 List and committed to re-evaluate all 65 waterbodies in the 2024 listing cycle.

The Center for Biological Diversity (CBD) submitted new information on microplastics after the data solicitation closed⁵ therefore California did not review this information for the 2020-2022 List. However, the State committed to evaluating this data in the 2024 listing cycle. CBD also re-submitted its 2018 comments on ocean acidification as well as new data from 3 additional pH sensors. EPA previously reviewed the 2018 comments and the data. The only new data submitted were from three real time sensor feeds that were not post-processed for data errors and no quality assurance and quality control (QA/QC) information was provided. EPA therefore finds the State Board’s exclusion of these data was reasonable.

EPA concludes that the State appropriately considered the existing and readily available data and information during development of its 2020-2022 List.

C. Listing Methodology

Decisions to list or delist are based on the quality and quantity of data, water body type, and the applicable water quality standard (WQS). The State’s surface waters are monitored to determine if water quality conditions support aquatic life, human health, recreational uses, and ecosystem health.

The Integrated Report summarizes the listing methodology used by California to develop its 2020-2022 Integrated Report and 303(d) List and specifies explicit factors for making listing and delisting decisions for different pollutant types based on different kinds of data. The State’s assessment methodologies and quantitative assessment factors include statistical methods for evaluating potential water quality standard (WQS) exceedances, and data quality requirements. These decision factors are applied to various types of data, including water chemistry, bacteria, nutrients, and other parameters. Data are evaluated using the Water Quality Control Policy for Developing California’s Clean Water Act Section 303(d) List (Listing Policy).⁶

D. New Impairment Listings

The State added 1,011 new waterbody-pollutant impairment listings to California’s 2020-2022 List compared to its 2018 List. New listings are shown in *Appendices I, J, K and L of the (2020-2022 Integrated Report)* and summarized in Tables 1 and 2 below.

⁵ As discussed in EPA’s 2006 Integrated Report Guidance, “states may set a reasonable ‘cut-off’ date after which no additional data or information will be considered in the preparation of the draft section 303(d) lists...and that data submitted after that cutoff date would be considered during the next listing cycle.”

⁶ www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2015/020315_8_amendment_clean_version.pdf

Table 1. Changes in Listed Waterbodies and Pollutants from 2018 to 2020-2022

Region	2018 303(d) Listings	New Listings	De-listings	Total 2020-2022 303(d) Listings
North Coast	217	0	0	217
San Francisco Bay	348	0	0	348
Central Coast	922	401	146	1,177
Los Angeles	875	0	0	877
Central Valley	906	337	45	1,202
Lahontan	256	0	0	256
Colorado River Basin	94	16	0	110
Santa Ana	144	0	0	142
San Diego	609	257	33	844
TOTALS	4,371	1,011	224	5,173

Table 2. Number of new listings and de-listings by pollutant in the 2020-2022 303(d) List compared to the 2018 303(d) List.

Pollutants	New Listings	New De-listings
Metals	192	14
Nuisance	2	
Nutrients	153	10
Other Cause	112	19
Pathogens	71	135
Pesticides	349	39
Salinity/ Total Dissolved Solids/ Chlorides/ Sulfates	57	
Sediment	26	4
Total Toxics	37	2
Toxic Inorganics	8	1
Toxic Organics	3	
Trash	1	
Total	1011	224

E. Waters Removed from California’s 303(d) List

The State’s 2020-2022 Integrated Report delists 224 waterbody-pollutant impairments. The de-listings and their reasons are shown in *Appendices I, J and K*. The most frequently delisted pollutants are pathogens, pesticides, and metals (see Table 2 above). EPA concludes that the State’s decision to delist the waters identified in its submittal is consistent with federal listing requirements.

F. Public Comment

On May 20, 2021, the State Board provided notice of an informational public hearing to be held on July 6, 2021 noting that the draft 2020-2022 303(d) List would be available for review on June 4, 2021. On December 1, 2021, the State Board provided public notice of the Adoption Meeting of the proposed statewide 303(d) List to be held on January 18 and 19, 2022. On December 17, 2021 the State Board made all supporting documents available online including the proposed 303(d) List for the 2020-2022 California Integrated Report, the Proposed Final Staff Report, and the Summary of Comments and Responses. The State Board adopted the Integrated Report on January 19, 2022.

EPA reviewed the public comments and the State's responses. EPA and finds the State's list was developed with a public participation process.

IV. TMDL Priority Ranking and Schedule

California's submittal includes a priority ranking for TMDL completion for those waters requiring a TMDL using a low/medium/high scale and projected date for completion. The State Board's TMDL priority rankings are shown in ATTAINS and Appendix A of the submittal. EPA finds that the State Board has developed a priority ranking for TMDL development consistent with the requirements in 40 C.F.R. § 130.7(b). The State took into account the severity of the pollution and the uses to be made of such waters and has identified waters targeted for TMDL development within the next two years.

References

2020-2022 California Integrated Report (Clean Water Act Section 303(d) List and 305(b) Report)
https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2020_2022_integrated_report.html

2018 California Integrated Report (Clean Water Act Section 303(d) List and 305(b) Report)
https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2018_integrated_report.html

U.S. Environmental Protection Agency. 1991. "Guidance for Water Quality-Based Decisions: The TMDL Process," Office of Water. EPA 440/4-91-001.

U.S. Environmental Protection Agency. 1992. July 24, 1992 Federal Register and 40 C.F.R. Parts 122, 123, 130, revision of regulation, 57 Fed. Reg. 43 pp. 33040.

U.S. Environmental Protection Agency. 2002. Consolidated Assessment and Listing Methodology. Office of Wetlands, Oceans, and Watersheds, Washington, DC.

U.S. Environmental Protection Agency. 2003. "Guidance for 2004 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d) and 305(b) of the Clean Water Act," Diane Regas, Office of Wetlands, Oceans, and Watersheds, Washington, DC.

U.S. Environmental Protection Agency. 2005. "Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act," Diane Regas, EPA Office of Wetlands, Oceans, and Watersheds, Washington, DC.

U.S. Environmental Protection Agency. 2006. "Information Concerning 2008 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions," Diane Regas, EPA Office of Wetlands, Oceans, and Watersheds, Washington, DC.

U.S. Environmental Protection Agency. 2009. "Information Concerning 2010 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions," Suzanne Schwartz, Office of Wetlands, Oceans, and Watersheds, Washington, DC.

U.S. Environmental Protection Agency. 2011. "Information Concerning 2012 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions," Denise Keehner, Office of Wetlands, Oceans, and Watersheds, Washington, DC.

U.S. Environmental Protection Agency. 2013. "Information Concerning 2014 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions," Denise Keehner, Office of Wetlands, Oceans, and Watersheds, September 3, 2013.

U.S. Environmental Protection Agency. 2015. "Information Concerning 2016 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions," Benita Best-Wong, Office of Wetlands, Oceans, and Watersheds, August 13, 2015.

U.S. Environmental Protection Agency. 2017. "Information Concerning 2018 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions," John Goodin, Office of Wetlands, Oceans, and Watersheds, December 22, 2017.

U.S. Environmental Protection Agency. 2021. "Information Concerning 2022 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Reporting and Listing Decisions," John Goodin, Office of Wetlands, Oceans, and Watersheds, March 31, 2021.