

Enclosure:

EPA Review of California's 2012 Section 303(d) List Submitted April 24, 2015

Purpose

The purpose of this document is to describe the rationale for EPA's partial approval and partial disapproval of California's 2012 list of water quality limited segments requiring a Total Maximum Daily Load (TMDL) under Clean Water Act, Section 303(d). The following sections identify those key elements to be included in the list submittal based on the Clean Water Act and EPA regulations (see 40 CFR 130.7). EPA carefully reviewed the State's submittal including the listing decisions, the assessment methodology used by the State in developing its list, and supporting data and information. EPA's review of California's list is based on EPA's analysis of whether the State reasonably considered existing and readily available water quality-related data and information, and reasonably identified waters required to be listed. This review describes the basis for EPA's decision to approve the State's listings of water quality limited segments requiring a TMDL identified in the State's 2012 Integrated Report, Attachment A (California Category 5 Impaired Waters List). The California Category 5 list differs from the EPA Category 5 list. EPA only considers impaired waters still requiring TMDLs to be included in EPA Category 5. This review also describes the basis for EPA's decision to disapprove California's decision to not include Topaz Lake for elevated mercury in fish tissue on its list of water quality limited segments requiring a TMDL. EPA's determination to add Topaz Lake mercury is based on monitoring results and information known to EPA (see material cited in the References section at the end of this document).

As discussed further below, EPA will open a public comment period on the addition of Topaz Lake mercury to California's Section 303(d) List, and will, if appropriate, revise the list following consideration of any comments received. The general basis for adding Topaz Lake mercury are discussed here and case-specific water body information is provided in Table 1 of this enclosure.

Statutory and Regulatory Background

Identification of Water Quality Limited Segments for Inclusion on a Section 303(d) List

Section 303(d)(1) of the Clean Water Act directs States to identify those waters within its jurisdiction for which effluent limitations required by Section 301(b)(1)(A) and (B) are not stringent enough to implement any applicable water quality standard, and to establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters. The Section 303(d) listing requirement applies to waters impaired by point and/or nonpoint sources, pursuant to EPA's long-standing interpretation of Section 303(d).

EPA regulations provide that States do not need to list waters where the following controls are

adequate to implement applicable standards: (1) technology-based effluent limitations required by the Clean Water Act, (2) more stringent effluent limitations required by federal, State or local authority, and (3) other pollution control requirements required by State, local, or federal authority. See 40 CFR 130.7(b)(1).

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

In developing its list of water quality limited segments requiring a TMDL, a State is required to assemble and evaluate all existing and readily available water quality-related data and information, including, at a minimum, consideration of 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 Section 305(b) report; (2) waters for which dilution calculations or predictive modeling indicate nonattainment of applicable standards; (3) waters for which water quality problems have been reported by governmental agencies, members of the public, or academic institutions; and (4) waters identified as impaired or threatened in any Section 319 nonpoint assessment submitted to EPA. See 40 CFR 130.7(b)(5). In addition to these minimum categories, States are required to evaluate any other water quality-related data and information that is existing and readily available. EPA's 1991 Guidance for Water Quality-Based Decisions describes categories of water quality-related data and information that may be existing and readily available (see EPA 1991, Appendix C). While States are required to evaluate all existing and readily available water quality-related data and information, States may decide to rely or not rely on particular data or information in determining whether to list particular waters.

In addition to requiring States to assemble and evaluate all existing and readily available water quality-related data and information, EPA regulations at 40 CFR 130.7(b)(6) require States to include as part of their submittal to EPA documentation to support decisions to use or not use 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 the EPA Region 9.

Priority Ranking

EPA regulations also address the requirement in Section 303(d)(1)(A) of the Act that States establish a priority ranking for listed waters. The regulations at 40 CFR 130.7(b)(4) require States to prioritize waters on their Section 303(d) lists for TMDL development, and also to identify those water quality limited segments targeted for TMDL development in the next two years. In prioritizing and targeting waters, States must, at a minimum, take into account the severity of the pollution and the uses to be made of such waters. See Section 303(d)(1)(A). As long as these factors are taken into account, the Clean Water Act provides that States establish priorities. States may consider other factors relevant to prioritizing waters for TMDL development, including immediate programmatic needs, vulnerability of particular waters as aquatic habitats, recreational, economic, and aesthetic importance of particular waters, degree of

public interest and support, and State or national policies and priorities. See 57 FR 33040, 33045 (July 24, 1992), and EPA 1991.

Analysis of California's Submittal

Identification of Waters and Consideration of Existing and Readily Available Water Quality-Related Data and Information

The State Water Resources Control Board (State Water Board) issued a Notice of Public Solicitation of Water Quality Data and Information for 2012 Integrated Report on January 19, 2010. The deadline for submittal of the data was extended from June 30 to August 30, 2010. On July 9, 2013 the State Board announced its intent to move to a rotating basins approach for the 303(d) list, starting with the North Coast, Lahontan and Colorado River Regional Water Quality Control Boards (Regional Boards 1, 6 and 7).

EPA has reviewed the State's submittal, and has concluded that the State developed its list of water quality limited segments requiring a TMDL in partial compliance with Section 303(d) of the Act and 40 CFR 130.7. EPA's review is based on its analysis of whether the State reasonably considered existing and readily available water quality-related data and information and reasonably identified waters required to be listed.

California used its 2010 Section 303(d) List and 305(b) Report as its starting point, and based its 2012 Section 303(d) submittal on its analysis of readily available data and information to determine whether additions to or deletions from the 2010 list were necessary. There were 92 additional listings and 14 de-listings in Regional Boards 1, 6 and 7 made to the 2010 303(d) List, for a total of 3,584 listings statewide on the proposed 2012 303(d) List.

The State made some efforts to clarify the geographic extent of waterbody segments between the 2010 Section 303(d) List and 305(b) Report and the 2012 Water Quality Integrated Report. These clarifications reflect changes in waterbody names, changes in extent of impairment or the splitting of a waterbody into one or more segments. See 2012 Water Quality Integrated Report, Attachment J. The State updated its web map application to display assessment data and results addressed in the 2012 Integrated Report¹. This California 2012 Integrated Report Web Map Application was assembled to make publically available information about the waterbodies and sample locations assessed in the California 2012 Integrated Report.

Assembly of Data and Information

The State Water Board staff devoted considerable effort to assembling new data and information for the 2012 Water Quality Integrated Report and development of the 303(d) list. Staff compiled data and information from multiple sources, including each of the data and information categories identified at 40 CFR 130.7(b)(5). The State issued public notice soliciting data and information from the public on January 14, 2010, with submittals requested by August 30, 2010.

¹ Link to California 2012 Integrated Report Web Map Application:
http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2012.shtml?tab=map

Additionally, the solicitation notice was emailed to an extensive emailing list, and posted on the State Water Board's website. Overall, the State considered data and information submitted during the comment period including: fish advisories; USEPA databases; existing and readily available water quality data and information reported by local, State and federal agencies, citizen groups, academic institutions and the public; and other sources of data and information that were readily available to staff. EPA finds the State's approach to assembling readily available information to be reasonable. EPA's review found the data compilation process was sufficiently clear and consistent with federal listing requirements, and a sufficient basis for water body assessments.

Listing Methodology

The submittal summarizes the listing methodology used by California to develop the 2012 Water Quality 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. Data are evaluated using the Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (Listing Policy)².

California's 2012 Water Quality Integrated Report includes a list of water segments where a water quality standard is not met or expected to be met, but an impairment is being addressed by a USEPA approved TMDL. See 2012 Water Quality Integrated Report, Attachment B, Approved TMDL List. EPA understands this list to include water segments and pollutant pairs which the State has identified as impaired but is not requiring a new or revised TMDL at this time (Attachment C).

EPA reviewed the various assessments and concludes the State's assessments are consistent with federal listing requirements and applicable water quality standards in most cases. EPA, relying on federal listing regulations and guidance, has determined that Topaz Lake mercury meets the Federal listing requirements under 40 CFR 130.7 and was omitted from the State's list of water quality limited segments requiring a TMDL. The basis for EPA's decisions to add Topaz Lake mercury is discussed in greater detail in the following section.

Basis for EPA Decision to Add A Water To California's 2012 303(d) List

This section describes the basis for EPA's decisions to (1) disapprove the State's decision to not list Topaz Lake mercury and add it to California's 2012 Section 303(d) List. EPA analyzed the State's water body assessments and supporting rationales to determine whether the State's decisions not to list waters were consistent with federal listing requirements and the provisions of state water quality standards. The State is required to evaluate potential violations of both narrative and numeric water quality objectives. See 40 CFR 130.7(b)(3).

² Link to California Listing Policy

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

When determining whether to add waters to California's Section 303(d) List, EPA first considered provisions within State water quality standards and, if necessary, referred to listing criteria contained in EPA's water quality assessment guidance documents (EPA 2001, 2003, 2005, 2006, 2009).

Topaz Lake Mercury Impairment

Topaz Lake is a 2,410 acre lake which borders both California and Nevada. The State Board's Surface Water Ambient Monitoring Program (SWAMP) sampled Topaz Lake on Nov 7, 2007 and collected fish tissue samples from Rainbow Trout and the Sacramento Sucker. The fish were frozen, then skinned and fileted in the lab, resulting in 1 composite for Rainbow trout and 2 composites for Sacramento Sucker. Each composite was comprised of 5 filets. The samples were analyzed for total mercury using EPA method 7473. The detection level was 0.012 ug/g and the results are presented as ug/g (wet weight).

These data were considered by State Board staff to determine beneficial use support. Since only 1 of 3 samples exceed the State Board's evaluation guideline of 0.2 ug/g for mercury. The Water Board staff did not recommend listing Topaz Lake as being impaired for mercury.

Fish data from State Board's Surface Water Ambient Monitoring Program

Common Name	Ave Weight (g)	Ave Length (mm)	Hg (ug/g ww)	Date Sampled
Rainbow Trout	757	423	0.18	11/7/2007
Sacramento Sucker	204	257	0.24	11/7/2007
Sacramento Sucker	204	256	0.12	11/7/2007

On July 13, 2011 Nevada Department of Environmental Protection (NDEP) sampled smallmouth bass from Topaz Lake. The fish were analyzed as single fish skin-off fillets and the data were analyzed using EPA method 7473 with a detection limit of 0.012 ug/g. NDEP decided to not list Topaz Lake as impaired for their 303(d) List. However, on October 23, 2014, USEPA listed the Nevada side of Topaz Lake as impaired for mercury in fish tissue as 5 out of 5 samples exceeded the EPA 304(a) criteria of 0.3 ug/g.

Fish data from Nevada Department of Environmental Protection

Common Name	Ave Weight (g)	Ave Length (mm)	Hg (ug/g ww)	Date Sampled
Smallmouth Bass	820	376	0.62	7/13/2011
Smallmouth Bass	950	390	0.83	7/13/2011
Smallmouth Bass	690	352	0.50	7/13/2011
Smallmouth Bass	650	362	0.60	7/13/2011
Smallmouth Bass	670	353	0.57	7/13/2011

EPA shared the data with Water Board staff, but the Nevada data were not considered by the Water Board because the sample date was after the State Board's data submittal cut-off date and the fish were collected outside of the state boundaries. EPA believes that because the lake is

located in both Nevada and California and that fish tend to move throughout the water body regardless of state boundary the data collected in Nevada should be assessed for inclusion on the California 303(d) List. Based on the NDEP data, 5 out of 5 samples exceed the EPA 304(a) criteria and 5 out of 5 samples exceed the State Board's evaluation guideline of 0.2 ug/g. EPA has determined that Topaz Lake should be listed on the California 303(d) list as being impaired due to high mercury in fish tissue and is taking comment on this determination.

Good Cause for Delisting

California's 2012 Water Quality Integrated Report identified 14 water body-pollutant combinations that were deleted from the Section 303(d) List because analysis of available monitoring data supported a conclusion that applicable standards were no longer exceeded. See 2012 Integrated Report, Table 3 pages 21-23 and Appendix H for individual lines of evidence. EPA reviewed California's rationale for its decision not to include on its 2012 Section 303(d) List waters that were included on its 2010 Section 303(d) List.

California also identified over 41 water body-pollutant combinations for which TMDLs have been developed to address water quality impairments (EPA Category 4a) and 2 water body-pollutant combinations where other actions are expected to attain water quality standards (EPA Category 4b). EPA only takes action on those water body-pollutant combinations still requiring TMDLs (EPA Category 5). The State demonstrated to EPA's satisfaction that these water bodies do not require TMDLs. See, 40 CFR 130.7(b)(6)(iv).

Public Comments

The Water Boards sought public input at several points in the process of developing the 2012 Water Quality Integrated Report including:

- The State Water Resources Control Board (State Water Board) sent a Notice of Public Solicitation of Water Quality Data and Information for 2012 Integrated Report on January 19, 2010. The deadline for submittal of the data was extended from June 30 to August 30, 2010.
- The Regional Water Boards for the North Coast, Lahontan, and Colorado River regions provided advance notice and opportunity to the public to submit written comments, responded in writing to those written comments, and considered oral testimony and readily available data and information in 2014.
- The State Board solicited public comments on the list on December 31, 2014 with comments due by February 5, 2015. The response to comments is posted on the State Board website.
- The State Board held a Public Hearing on the list on March 3, 2015.
- The 2012 303(d) List was approved at a public meeting of the State Board on April 8, 2015.

Public comments received on the Draft 2012 Water Quality Integrated Report, and Water Board Staff responses to comments, are provided on the State Board web page³. EPA reviewed the State's responses to comments received on the Draft 2012 Water Quality Integrated Report. EPA found the State's responses to public comments reasonable and in accordance with federal listing requirements.

Priority Ranking /Scheduling

The State's submittal includes a priority ranking for TMDL completion for those waters requiring a TMDL, using estimated dates for TMDL completion or completion of other actions to achieve water quality standards within a specified time frame. See 2012 Water Quality Integrated Report, Attachment A, Category 5 Waters. We find that these priority rankings for TMDL development meet requirements related to priority setting in 40 CFR 130.7(b). TMDL development priorities were not set for waters and pollutants for which TMDLs have been completed or that are being addressed through other control actions. EPA concludes that the decision not to identify priority rankings for these waters and pollutants is appropriate. EPA is not taking action on these priorities as federal regulations do not require EPA approval of priority rankings or schedules.

Administrative Record Supporting This Action

In support of this decision to partially approve and partially disapprove California's listing decisions, EPA reviewed the materials submitted by California with its listing decisions. The administrative record supporting EPA's decision to approve the State's inclusion of the waters and pollutants identified on the State's 2012 Water Quality Integrated Report, Attachment A, Category 5 List, and to add certain waters and/or pollutants includes the materials submitted by the State, EPA guidance concerning preparation of Section 303(d) lists, EPA's past comments on California's listing methodology and draft lists, and EPA's decision letter and this enclosure. EPA determined that the materials provided by the State with its submittal generally provided sufficient documentation to support our analysis and findings that the State decisions to list waters meet the requirements of the Clean Water Act and associated federal regulations.

It was unnecessary for EPA to consider all of the materials considered by the State in order to determine that, based on the materials submitted to EPA, the State complied with the applicable federal listing requirements. Moreover, federal regulations do not require the State to submit all data and information considered as part of the submittal. At EPA's request, the State did provide additional materials on a case-specific basis for our review of the raw data and other relevant information. EPA's decisions to add Topaz Lake mercury to the State's Section 303(d) List is supported by the monitoring data and information referenced in this enclosure and cited in the References section below.

³ http://www.waterboards.ca.gov/water_issues/programs/tmdl/docs/integrated_report_responsetocomments.pdf

References

Submittal

State Water Resources Control Board, 2012. California Integrated Report Clean Water Act Sections 303(d) and 305(b) Staff Report dated April 8, 2015.

State Water Resources Control Board, 2015. Transmittal of the 2012 California Integrated Report. [Clean Water Act Sections 303(d) and 305(b)]. Letter to Jane Diamond, Region 9 Water Division Director and supporting materials, including the Integrated Report, and responsiveness summary, dated April 7, 2014.

Other Documents

EPA 1978. December 28, 1978 Federal Register Notice, Total Maximum Daily Loads Under Clean Water Act, finalizing EPA's identification of pollutants suitable for TMDL calculations, 43 Fed. Reg. 60662.

EPA 1985. January 11, 1985 Federal Register Notice, 40 CFR Parts 35 and 130, Water Quality Planning and Management: Final Rule, 50 Fed. Reg. 1774.

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

EPA, 2001. 2002 Integrated Water Quality Monitoring and Assessment Report Guidance, Robert H. Wayland III, Director, Office of Wetlands, Oceans and Watersheds, November 19, 2001.

EPA. 2001. Water Quality Criterion for the Protection of Human Health: Methylmercury. Final. EPA-823-R-01-001. January 2001

EPA, 2003. Guidance for 2004 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d) and 305(b) of the Clean Water Act; TMDL-01-03, Diane Regas, Director, Office of Wetlands, Oceans and Watersheds, July 21, 2003.

EPA, 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, Director, Office of Wetlands, Oceans and Watersheds, July 29, 2005.

EPA, 2006. Information Concerning 2008 Clean Water Act Sections 303(d), 305(b) and 314 Integrated Reporting and Listing Decisions. Diane Regas, Director, Office of Wetlands, Oceans and Watersheds, October 12, 2006.

EPA, 2009. Information Concerning 2010 Clean Water Act Sections 303(d), 305(b) and 314 Integrated Reporting and Listing Decisions. Suzanne Schwartz, Director, Office of Wetlands,

Oceans and Watersheds, May 5, 2009.

EPA. 2010. Guidance for Implementing the January 2001 Methylmercury Water Quality Criterion. EPA 823-R-10-001. U.S. Environmental Protection Agency, Office of Water, Washington, DC.