

Review of California's 2004-2006 Section 303(d) List

*Enclosure to letter from Alexis Strauss, EPA Region 9 to
Thomas Howard, State Water Resources Control Board*

Date of Transmittal Letter from State: November 21, 2006

Date of Receipt by EPA: November 24, 2006

Purpose

The purpose of this review document is to describe the rationale for EPA's partial approval of California's 2004-2006 Section 303(d) water quality limited waters list¹. 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 C.F.R. ' 130.7). EPA reviewed the methodology used by the State in developing the 303(d) list and California's description of the data and information it considered. EPA's review of California's 303(d) 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 California's decision to list on its 303(d) the waters and pollutants identified in three tables:

1. List of Water Quality Limited Segments Still Needing Total Maximum Daily Loads²,
2. List of Water Quality Limited Segments Being Addressed By USEPA Approved TMDLs, and
3. List of Water Quality Limited Segments Being Addressed By Actions Other Than TMDLs.

EPA is not taking action at this time on the State decisions to list Walnut Creek for toxicity and not to list other waters and pollutants. EPA continues its reviews of Walnut Creek as recommended in the State Board's approval resolution and of the State's decisions not to list other waters and pollutants, and will issue a separate decision concerning those assessments at a later date.

Statutory and Regulatory Background

Identification of WQLSs for Inclusion on Section 303(d) List

Section 303(d)(1) of the 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).

1 Although the submittal refers to a 2006 list, California did not complete a 2004 list. EPA therefore considers that this list comprises the State's listing determinations for the 2004-2006 period.

2 As discussed below, EPA is taking no action at this time with respect to the listing of Walnut Creek for toxicity.

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 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 Section 303(d) lists, States are 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 submissions 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 Region.

Priority Ranking

EPA regulations also codify and interpret 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 WQLSs 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 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.

As discussed above, EPA is conducting its review of California's 2004-2006 Section 303(d) listing decision in two phases. This initial review focuses upon the waters and pollutants California included on its list. The second phase will focus upon the State's assessments of waters and pollutants it decided not to list. The second phase review will also evaluate the listing of Walnut Creek for toxicity as recommended in the State Board resolution of October 25, 2006 (Resolution #2006-0079, p. 2). EPA has reviewed the State's submission, and has concluded that the State developed its Section 303(d) list, specifically those waters and pollutants listed therein, 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 2002 Section 303(d) list as its starting point for its 2004-2006 list revision. The State based its 2004-2006 Section 303(d) submittal on its analysis of readily available data and information to determine whether additions to or deletions from the 2002 list were necessary (listing report, pp. 2-3). The State determined that waters listed in 2002 should be retained on the Section 303(d) list unless: (1) new data and information supported a finding that listing requirements are no longer met or (2) errors in the analysis supporting the 2002 or earlier listing were identified. As a result, many waters were retained on the 2004-2006 Section 303(d) list without extensive analysis. EPA concludes that this incremental listing approach is consistent with federal requirements because the State is making the environmentally conservative assumption that previously listed waters are water quality limited segments (WQLSs) absent more recent data or information supporting a different finding. We note, however, that the State conducted assessments of a higher percentage of its waters than in prior listing decisions.

Assembly of Data and Information

The State devoted considerable effort to assemble new data and information sources for the 2004-2006 list revision (see listing report, pp. 3-15). Regional Board 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 initially solicited data and information from the public, requesting data and information for the 2001-2004 period. The solicitation was mailed to an extensive mailing list, advertised in newspapers, and posted on State and Regional Board web sites. The State also assessed the extensive monitoring data record compiled in the SWAMP data base for the period 2001-March, 2005. The State also considered data and information submitted during three separate public comment periods between September 2005 and September 2006. Overall, while the State focused its efforts to

assemble data and information on the period between 2001-early 2005, the State also considered data and information submitted by the public in 2005 and 2006. EPA finds it was generally reasonable for the State to focus its analysis on data and information assembled or submitted during the data solicitation period because the State needed a reasonable amount of time to consider the large amount of data and information in the record and to develop listing recommendations. Data and information sources assembled and considered by the State are specifically identified in the staff report and in more than 1800 individual water body fact sheets included in the list submission.

The State generally focused on data that became available after 2001 because the 2002 listing analysis focused on data and information that were available before 2001. In some cases, the State considered older data as part of its 2004-2006 listing assessments, depending upon the pollutants at issue, the types of data (e.g., sediment vs. water column data), and the availability of more recent data and information. EPA finds it reasonable for the State to base its assessments on water quality data generally collected during the 2001-2006 time frame because the more recent ambient water quality data are more likely to be representative and indicative of current water quality conditions. EPA also finds it is reasonable for the State to consider sediment and tissue data that are older than five years in age because these media usually are longer-term indicators of chemical contamination than are ambient water column data, and provide reliable information for assessing water quality conditions for a longer period of time.

The State developed water body fact sheets to summarize listing assessments. The fact sheets include the following elements.

- water body identification information,
- applicable water quality standards/beneficial use information,
- monitoring results by matrix (e.g., water, sediment, tissue),
- data quality information,
- linkage between monitoring results and applicable standards or other guidelines,
- availability of data and information,
- considerations in analysing data and information (e.g. sample size),
- temporal and spatial representation of available data,
- use of standard analytical methods for data analysis,
- pollutant source(s),
- listing recommendation

The State generated fact sheets for waters and pollutants to be added to the list, to be removed from the list, and in cases where new data and information were available but did not support a change in the listing decision. The fact sheets provide good summaries of the listing assessment decisions. The State also incorporated fact sheets previously generated during the 2002 list development as part of the 2004-2006 decision record. The State's responses to comments concerning several of water body assessments provide supplemental information explaining the basis for the State's assessment conclusions concerning several waters for which fact sheets were not prepared. EPA reviewed the fact sheets to ensure the basis for each water body assessment was sufficiently clear and consistent with federal listing requirements. We also reviewed the responses to public comments.

Listing Methodology

The list submittal summarizes the listing methodology used by California to update the 2004-2006 list. In September 2004, the State adopted the *Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) list* (the Policy) in accordance with California Water Code section 13191.3(a). The Policy contains a generally standardized approach for developing the State's 303(d) list. The Policy provides two assessment methodologies. First, the Policy specifies explicit rules for making listing and delisting decisions for different pollutant types based on different kinds of data. These quantitative assessment criteria specify statistical methods for evaluating potential standards exceedances, minimum data set requirements, and data quality requirements. These decision rules are applied to various types of data, including water chemistry, bacteria, health advisories, fish tissue, nutrients, nuisance factors, adverse biological response, water and sediment toxicity, and degradation of aquatic life populations and communities. The second method describes a weight of evidence approach that must be used if available information indicates water quality standards are not attained and the other decision rules do not support listing.

The Policy provides that California's 303(d) list is comprised of the waters and pollutants identified in three tables:

1. List of Water Quality Limited Segments Still Needing Total Maximum Daily Loads,
2. List of Water Quality Limited Segments Being Addressed By USEPA Approved TMDLs, and
3. List of Water Quality Limited Segments Being Addressed By Actions Other Than TMDLs.

California includes on its 303(d) list waters and pollutants for which TMDLs have been completed and for which other control actions are expected to remedy water quality impairments. States are authorized to include on their Section 303(d) lists impaired waters for which TMDLs have been completed or are being addressed through other control actions.

The State used the assessment decision rules identified in the Policy as the basis for the majority of its 2004-2006 listing decisions. In some cases, the State also applied the weight-of-evidence assessment provisions of the Policy to support decisions to list waters and pollutants. EPA reviewed the application of the Policy's decision rules with respect to the waters included on the final list and concludes the State's assessments are consistent with federal listing requirements and applicable water quality standards.

The State properly listed waters with nonpoint sources causing or expected to cause impairment, consistent with Section 303(d) and EPA guidance. Section 303(d) lists are to include all water quality limited segments (WQLSSs) still needing TMDLs, regardless of whether the source of the impairment is a point and/or nonpoint source. EPA's long-standing interpretation is that Section 303(d) applies to waters impacted by point and/or nonpoint sources. In *Pronsolino v. Marcus*, the District Court for the Northern District of California held that section 303(d) of the Clean Water Act (CWA) authorizes EPA to identify and establish total maximum daily loads (TMDLs) for waters impaired by nonpoint sources. *Pronsolino et al. v. Marcus et al.*, 91 F.Supp.2d 1337, 1347 (N.D.Ca. 2000), *aff'd*, *Pronsolino v. Nastri*, 291 F.3d 1123 (9th Cir 2004-2006). See also EPA's 1991 Guidance and National Clarifying Guidance for 2002 Section 303(d) Lists, Aug. 27, 1997.

The State included on its final list several waters listed due to the presence of exotic species. In a letter to the State dated December 17, 2004, EPA indicated that it would be appropriate for the State to include on its 303(d) lists waters impaired due to exotic invasive species. We continue to hold that view in approving the listings of these waters for exotic species. EPA's approval of the State's inclusion of waters impaired due to exotic species on its list does not represent a determination by EPA as to whether or not exotic species are in this case or in all cases "pollutants" within the meaning of Section 502(6) of the Clean Water Act

Public Comments

The State held several public hearings to receive public testimony and provided several opportunities for the public to submit written comments on the proposed listing decisions. EPA carefully reviewed the State's detailed responses to several thousand comments received from the public during the listing process. EPA commends the State for its intensive effort to involve the public in the listing process. EPA generally 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 schedule for TMDL completion for those waters still needing a TMDL, including waters scheduled for TMDL development over the next two years (staff report, Table 11). We understand that these schedules serve as priority rankings for TMDL development as required by federal regulations at 40 CFR 130.7(b). The Policy provides ranking criteria for determining the schedule for TMDL development for each listed water and pollutant. TMDL development schedules were not set for waters and pollutants for which TMDLs have been completed or that are being addressed through other control actions. EPA concludes the decision not to identify priority rankings or schedules for these waters and pollutants is appropriate. In future listing cycles, if it is determined the TMDLs or alternative control mechanisms do not result in attainment of applicable water quality standards, the waters should be included on the next 303(d) list and scheduled for TMDL development or revision. EPA is not taking action on these schedules 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 the California's listing decisions, EPA carefully reviewed the materials submitted by California with its 303(d) listing decision. The administrative record supporting EPA's decision is comprised of the materials submitted by the State, copies of Section 303(d), associated federal regulations, supporting EPA staff memoranda, EPA guidance concerning preparation of Section 303(d) lists, EPA's past comments on California's listing methodology and draft list, and this decision letter and supporting report. 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. We are aware that the State compiled and considered additional materials (e.g. raw data and water quality analysis reports) as part of its list development process that were not included in the materials submitted to EPA. EPA did not consider all of these additional materials as part of its review of the listing submission. 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 listing submission.

References

Documents provided by the State

California State Water Resources Control Board (SWRCB), 2006. Transmittal of the 2006 Clean Water Act Section 303(d) List of Water Quality Limited Segments for California. Letter to Alexis Strauss, USEPA and three CDs of supporting materials, including the staff listing report, fact sheets, and responsiveness summary, November 21, 2006

Other Documents

40 CFR Part 130 Water Quality Planning and Management.

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 1997. August 27, 1997 memorandum from Robert H. Wayland III, Director, Office Wetlands, Oceans, and Watershed, Office of Water, EPA Headquarters, to Water Division Directors, Regions I - X, and Directors, Great Water Body Programs, and Water Quality Branch chiefs, Regions I - X, regarding "National Clarifying Guidance For 2002 State and Territory Section 303(d) Listing Decisions."

EPA 1997. September, 1997 guidance from Office of Water, Headquarters, US EPA regarding Guidelines for Preparation of the Comprehensive State Water Quality Assessments (305(b) Reports) and Electronic Updates: Supplement, EPA-841-B-97-002B.

EPA 2000. Ambient Water Quality Criteria Recommendations- Information Supporting the Development of State and Tribal Nutrient Criteria. Nutrient Criteria in Ecoregion III. EPA Office of Water, EPA 822-B-00-016, December 2000.

EPA 2000. Guidance: Use of Fish and Shellfish Advisories and Classifications in 303(d) and 305(b) Listing Decisions. Geoffrey H. Grubbs and Robert H. Wayland III, EPA Headquarters, October 24, 2000.

EPA, 2000. Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California. 65 FR 97, p. 31681 et. seq., May 18, 2000.

EPA, 2001. November 19, 2001 memorandum from EPA Office of Water regarding 2004-2006 Integrated Water Quality Monitoring and Assessment Report Guidance.

EPA, 2002. Consolidated Assessment and Listing Methodology, EPA Office of Water, July 2002.

EPA, 2004. Letter from Alexis Strauss and Diane Regas, USEPA, to Celeste Cantú, SWRCB, December 17, 2004.

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, EPA Headquarters, July 29, 2005.