STAFF REPORT
VOLUME I

REVISION OF THE CLEAN WATER ACT SECTION 303(d) LIST OF WATER QUALITY LIMITED SEGMENTS

SEPTEMBER 2005

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STATE WATER RESOURCES CONTROL BOARD
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

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STATE WATER RESOURCES CONTROL BOARD
DIVISION OF WATER QUALITY

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Preface

The State Water Resources Control Board (SWRCB) is required by the Clean Water Act (CWA) to review, make changes as necessary, and submit the CWA section 303(d) list to the U.S. Environmental Protection Agency (USEPA).

This document presents recommendations for additions, deletions, and changes to the 2002 California section 303(d) list. Recommendations are also made for when Total Maximum Daily Loads (TMDLs) will be completed. The report provides a summary of list changes and the SWRCB staff analysis of data and information.

This staff report has three parts: (1) Volume I which contains the listing methodology and a summary of the proposed additions, deletions, changes, and TMDL schedules; (2) Volume II which contains summaries of the listing and delisting proposals for the North Coast, San Francisco Bay, Central Coast, and Los Angeles regions; and (3) Volume III which contains summaries of the listing and delisting proposals for the Central Valley, Lahontan, Colorado River Basin, Santa Ana, and San Diego regions. Each proposal is presented in a water body fact sheet that summarizes listing status weight of evidence and the relationships between each line of line of evidence. Reports have also been prepared that document those waters where data were reviewed but no change is listing status is proposed.

SWRCB will accept testimony at northern and southern California workshops on the proposed changes to the 2002 section 303(d) list. After responses to comments are developed, the SWRCB will consider approval of the 2006 section 303(d) list. Once approved, the list and supporting information will be submitted to USEPA.

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List of Abbreviations

AU	Assessment unit
Basin Plan	Regional Water Quality Control Plan
BPTCP	Bay Protection and Toxic Cleanup Program
CalEPA	California Environmental Protection Agency
CCAMP	Central Coast Ambient Monitoring Program
CCC	Criteria Continuous Concentration
CCR	California Code of Regulations
CDF	California Department of Forestry and Fire Protection
CFCP	Coastal Fish Contamination Program
CFR	Code of Federal Regulations
CMC	Criteria Maximum Concentration
CSTF	Contaminated Sediment Task Force
CWA	Clean Water Act
^{o}C	degrees Celsius
^{o}F	degrees Fahrenheit
DDE	Dichlorodiphenyldichloroethylene
DDT	Dichlorodiphenyltrichloroethane
DFG	California Department of Fish and Game
DHS	California Department of Health Services
DO	Dissolved oxygen
dw	dry weight
EDL	Elevated Data Level
ERM	Effects Range Median
HCH	Hexachlorocyclohexane
HSA	Hydrologic Sub Area
HU	Hydrologic Unit
kg	kilogram(s)
Listing Policy	Water Quality Control Policy for Developing California's Section 303(d) List
LOE	Line of Evidence
MCL	Maximum Contaminant Level
MDL	Method Detection Limit
mg/kg	milligrams per kilogram (parts per million)
mg/L	milligrams per liter (parts per million)
µg/g	micrograms per gram (parts per million)
µg/L	micrograms per liter (parts per billion)
MPN	Most Probable Number
MTBE	Methyl tertiary-butyl ether
MTRL	Maximum Tissue Residue Level
NAS	National Academy of Sciences
ng/g	nanograms per gram (parts per billion)
ng/L	nanograms per liter (parts per trillion)
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System

NPS	Nonpoint Source
NTU	Nephelometric Turbidity Unit
OEHHA	Office of Environmental Health Hazard Assessment
PAH	Polynuclear aromatic hydrocarbon
PBDE	Polybrominated diphenyl ethers
PCB	Polychlorinated biphenyl
PEL	Probable Effects Level
pg/L	picograms per liter
POTW	Publicly Owned Treatment Works
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
RBI	Relative Benthic Index
RL	Reporting Level
RWQCB	Regional Water Quality Control Board
SFEI	San Francisco Estuary Institute
SMWP	State Mussel Watch Program
SQG	Sediment quality guideline
SWAMP	Surface Water Ambient Monitoring Program
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
TIE	Toxicity Identification Evaluation
TMDL	Total Maximum Daily Load
TSMP	Toxic Substance Monitoring Program
TSS	Total Suspended Solids
UAA	Use Attainability Analysis
USBR	U.S. Bureau of Reclamation
USEPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey
WDR	Waste Discharge Requirement
ww	wet weight

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Staff Report by the
Division of Water Quality
State Water Resources Control Board

REVISION OF THE CLEAN WATER ACT SECTION 303(d) LIST OF WATER QUALITY LIMITED SEGMENTS

Volume I

Introduction

The State of California is required under Clean Water Act (CWA) section 303(d) and federal regulations (40 CFR 130) to prepare a list of and set priorities for water quality limited segments still requiring Total Maximum Daily Loads (TMDLs). The section 303(d) list was last revised in 2003 (SWRCB, 2003). Federal regulations require the section 303(d) list to be updated every two years.

The purpose of this staff report is to present proposals for revision of the State's section 303(d) list and to present recommendations for scheduling the completion of TMDLs. The staff report has three parts: (1) Volume I which contains the listing methodology and a summary of the proposed additions, deletions, changes, and TMDL schedules; (2) Volume II which contains summaries of the proposals for the North Coast, San Francisco Bay, Central Coast, and Los Angeles regions; and (3) Volume III which contains summaries of the proposals for the Central Valley, Lahontan, Colorado River Basin, Santa Ana, and San Diego regions.

Background

The development of the section 303(d) list is governed by both federal and state requirements. Federal requirements are contained in the CWA and applicable sections of federal regulations. USEPA has prepared guidance to the states but the use of this guidance is not mandatory. State listing requirements are presented in the Water Quality Control Policy for Developing California's Section 303(d) List (SWRCB, 2004b).

Federal Listing Requirements

CWA section 303(d) requires states to identify waters that do not meet applicable water quality standards after the application of certain technology-based controls. The section 303(d) list must include a description of the pollutants causing the violation of water quality standards (40 CFR 130.7(b)(iii)(4)) and a priority ranking of the water quality limited segments, taking into account the severity of the pollution and the uses to be made of the waters. As defined in CWA and federal regulations, water quality standards include the designated uses of a water body, the adopted water quality criteria, and the State's antidegradation policy. Under state law (Porter-Cologne Water Quality Control Act), water quality standards are beneficial uses to be made of a water body, the established water quality objectives (both narrative and numeric), and the State's nondegradation policy (SWRCB Resolution No. 68-16). Federal regulation defines a "water

quality limited segment" as "any segment [of a water body] where it is known that water quality does not meet applicable water quality standards, and/or is not expected to meet applicable water quality standards, even after application of technology-based effluent limitations required by CWA Sections 301(b) or 306."

A TMDL must be developed for water quality limited segments still needing a TMDL. A TMDL (40 CFR 130.2(j)) is the sum of the individual wasteload allocations for point sources, load allocations for nonpoint sources, and natural background, tributaries, or adjacent segments.

States are required to review the section 303(d) list in even-numbered years, make changes as necessary, and submit the list to USEPA for approval.

State Listing Requirements

On September 30, 2004, SWRCB adopted the *Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List* (Listing Policy) (SWRCB, 2004b) in accordance with California Water Code section 13191.3(a). The Listing Policy identifies the process by which SWRCB and RWQCBs will comply with the listing requirements of CWA section 303(d). The Listing Policy became effective in December 2004.

The objective of the Listing Policy is to establish a standardized approach for developing California's section 303(d) list with the overall goal of achieving water quality standards and maintaining beneficial uses in all of California's surface waters. TMDLs will be developed as needed for the waters identified under the provisions of the Listing Policy.

Decision Rules

The Listing Policy (SWRCB, 2004b) outlines a weight of evidence approach that provides the decision rules for different kinds of data; an approach for analyzing data statistically; and requirements for data quality, data quantity, and administration of the listing process. Decision rules for listing and delisting are provided for: chemical-specific water quality standards; bacterial water quality standards; health advisories; bioaccumulation of chemicals in aquatic life tissues; nuisance such as trash, odor, and foam; nutrients; water and sediment toxicity; adverse biological response; and degradation of aquatic life populations and communities. The Listing Policy also requires that situation-specific weight of evidence listing or delisting factors be used if available information indicates water quality standards are not attained or attained and the other decision rules do not support listing or delisting. The federal requirement for setting priorities on which TMDLs will be developed first is addressed in the Listing Policy by the establishment of schedules for TMDL development.

The Listing Policy also provides direction related to:

1. The definition of readily available data and information.
2. Administration of the listing process including data solicitation and fact sheet preparation.
3. Interpretation of narrative water quality objectives using numeric evaluation guidelines.
4. Data quality assessments.
5. Data quantity assessments including water body specific information, data spatial and temporal representation, aggregation of data by reach/area, quantitation of chemical concentrations, evaluation of data consistent with the expression of water quality objectives

or criteria, binomial model statistical evaluation, evaluation of bioassessment data, and evaluation of temperature data.

Justification of each portion of the Listing Policy is presented in the Final Functional Equivalent Document (SWRCB, 2004c) that was developed to support the provisions of the Listing Policy.

List Structure

The Listing Policy requires that all waters that do not meet water quality standards be placed on the section 303(d) list. The categories are (1) waters still requiring a TMDL, and (2) waters where the water quality limited segment is being addressed.

Water segments in the "Water Quality Limited Segments Being Addressed" category must meet either of the following conditions:

1. A TMDL has been developed and approved by USEPA and the approved implementation plan is expected to result in full attainment of the standard within a specified time frame; or
2. It has determined that an existing regulatory program is reasonably expected to result in the attainment of the water quality standard within a reasonable, specified time frame.

Methodology Used to Develop the 2006 Section 303(d) List

Assumptions

In developing SWRCB staff recommendations it was assumed that:

1. The 2002 section 303(d) list (Appendix 1) would form the basis for the 2006 list submittal.
2. The provisions of the Listing Policy would guide staff recommendations.
3. Waters that were previously removed from the section 303(d) list because a TMDL was completed or another program was addressing the water quality problem would be considered for placement on the section 303(d) list in the Water Quality Limited Segments Being Addressed category based on the data and information used to delist plus any additional data that has become available. If the listing was removed in 2002 solely on the basis that the program would address the problem, section 3.11 of the Listing Policy was used as the listing factor.
4. Exotic or invasive species would be considered as pollutants and would be considered for inclusion on the section 303(d) list. A recent court ruling (Northwest Environmental Advocates et al. vs. USEPA, 2005) found that invasive species are considered to be pollutants as defined in CWA.
5. Fact sheets would be developed for those water body pollutant combinations where there was a high likelihood of changing list status.
6. The staff report contains only those fact sheets that recommend a change in the section 303(d) list. Fact sheets are published in separate documents where the recommendations are (1) Do not list (SWRCB, 2005a), or (2) Do not delist (SWRCB, 2005b).

Data and Information Used

SWRCB solicited, assembled, and consider all readily available data and information. A public solicitation of data and information was begun in April 2004 (SWRCB, 2004a). This public data solicitation was concluded in June 2004. The data received generally covered the period of 2001 to early 2004. Some data were submitted that addressed pre-2002 listings. Data through March 2005 from the Surface Water Ambient Monitoring Program (SWAMP) were included in the record. Other sources of data and information that became readily available to SWRCB staff were also included in the administrative record.

A list of data and information in the administrative record used for development of the 2006 section 303(d) list is presented in the Appendix 2. Data and information that were reviewed included:

- Data and information supporting the 2002 section 303(d) list, and the most recent section 305(b) report;
- Drinking water source assessments to the extent they were available;
- Municipal Separate Storm Sewer System reports;
- Information on water quality problems in documents prepared to satisfy Superfund and Resource Conservation and Recovery Act requirements to the extent they were available;
- Fish and shellfish advisories, beach postings and closures, or other water quality-based restrictions;
- Reports of fish kills, cancers, lesions or tumors;
- Dilution calculations, trend analyses, or predictive models for assessing the physical, chemical, or biological condition of streams, rivers, lakes, reservoirs, estuaries, coastal lagoons, or the ocean to the extent they were available;
- Applicable water quality data and information from the Surface Water Ambient Monitoring Program (SWAMP), USEPA's Storage and Retrieval Database Access and other USEPA databases and information sources, the Bay-Delta Tributaries Database, Southern California Coastal Water Research Project, and the San Francisco Estuary Regional Monitoring Program; and
- 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.

SWRCB Staff Analysis and Recommendations

This section provides a description of the process for developing of fact sheets, contents of fact sheets, standards used, evaluation guidelines used, fact sheets for affected area changes, and how faulty listings were addressed.

Data Processing and Fact Sheet Development

All readily available data and information in the administrative record was considered in the development of the 2006 CWA section 303(d) list. SWRCB staff developed fact sheets summarizing the data used to make listing/delisting decisions.

Even though all data were reviewed and considered, fact sheets were not developed for every pollutant-water body combination reviewed. In general, fact sheets were developed for all

waters and pollutants where water quality standards were not attained. Data sets were grouped into High, Medium and Low priorities for fact sheet development. The grouping were based on the following priorities:

1. High Priority
   - All data and information submitted by public during the 2004 data solicitation and other data made available to SWRCB staff and not previously reviewed.
   - Recommendations from the RWQCBs.
   - Data from water bodies not on the section 303(d) list where a preliminary examination of the data and information in the record indicated standards were not met.

2. Medium Priority
   - Data in the record for waters currently on the section 303(d) list where the pollutants are not listed.

3. Low Priority
   - Data and information in the record for water body-pollutant combinations where a preliminary examination of the data indicated water quality standards were met.
   - Data without quality assurance information.
   - Data sets that had no supporting information or had no identifying information.
   - Data and information that could not be assessed because numeric water quality objectives, criteria, or evaluation guidelines are not available.

Contents of the Fact Sheets

Data and information from water bodies was assessed using the weight-of-evidence approach identified in the Listing Policy. The weight-of-evidence approach was used to evaluate whether the evidence is in favor of or against placing waters on or removing waters from the section 303(d) list. If data and were reviewed for a water body-pollutant combination not currently on the section 303(d) list, it was considered for listing (using the delisting factors in section 3 of the Listing Policy). Conversely, if data and were reviewed for a water body-pollutant combination currently on the section 303(d) list, it was considered for delisting (using the delisting factors in section 4 of the Listing Policy).

The following steps describe the general steps in the weight-of-evidence approach:

1. Data and Information Processing: All data and information were evaluated using the decision rules listed in sections 3 or 4 of the Listing Policy and, as appropriate, applicable implementation factors (including sections 6.1.2.2 and 6.1.5.1 through 6.1.5.9). The schedule for completion of TMDLs was developed using the provisions of section 5 of the Listing Policy. Other information that could not be analyzed under the provisions of the Listing Policy was summarized in the fact sheets to the extent possible.

2. Data Assessment: An assessment in favor of or against a list action for a water body-pollutant combination was presented in the first part of the fact sheets. The assessment identified and discussed briefly relationships between all summarized lines of evidence for

the water body and pollutant. This assessment was made on a pollutant-by-pollutant (including toxicity) basis.

To the extent information was available, each fact sheet contained:

1. A descriptive name of the segment
2. The name of the pollutant or condition
3. A brief description of the recommendation for listing status (e.g., List, Do not list, Delist, Do not delist, Accept area change)
4. A description of the weight of evidence summarized for the water body-pollutant combination. This section included identification of the portion of the Listing Policy used, lines of evidence needed, a brief summary of the lines of evidence (LOE), a conclusion, and the basis for the staff findings.
5. A staff recommendation.
6. The weight of evidence section was followed by summaries of each LOE. In general each LOE contained descriptions of:
   A. The beneficial use(s) being addressed by data and information
   B. The matrix (e.g., water, sediment, or tissue)
   C. The water quality objective or water quality criterion
   D. The evaluation guideline used (if the water quality objective was narrative)
   E. The data or information used to assess water quality
   F. The spatial representation of the data and information
   G. The temporal representation of the data and information
   H. Data quality assessment
   I. Other information needed to summarize the data and information.

Standards

This section of the staff report outlines the sources used that identified beneficial uses of water, water quality objectives or water quality criteria, and, for interpretation of narrative water quality objectives, the evaluation guidelines used.

Beneficial Uses

The beneficial uses for waters for the state are identified in the Regional Water Quality Control Plans (Basin Plans). If beneficial uses were not identified for a water body in the Basin Plans and the uses existed in the water body, then waters were assessed using the existing beneficial uses of water.

Water Quality Objectives/Water Quality Criteria

The water quality objectives and water quality criteria used in the assessments were from the following sources:

- Basin Plans
- Statewide Water Quality Control Plans (e.g., the California Ocean Plan)
- California Toxics Rule (40 CFR 131.38)
- Bacteria standards at bathing beaches (17 CCR 7958)
- Maximum Contaminant Levels to the extent applicable [e.g., Table 64431-A (Inorganic Chemicals) and 64431-B (Fluoride) of 22 CCR section 64431, Table 64444-A (Organic Chemicals) of 22 CCR section 64444, and Tables 64449-A (Secondary Maximum

Contaminant Levels-Consumer Acceptance Limits) and 64449-B (Secondary Maximum Contaminant Levels-Ranges) of 22 CCR section 64449]

Guidelines

Narrative water quality objectives were evaluated using evaluation guidelines. When evaluating narrative water quality objectives or beneficial use protection, SWRCB staff identified evaluation guidelines that represent standards attainment or beneficial use protection.

In selecting an evaluation guideline, SWRCB staff:

- Identified the water body, pollutants, and beneficial uses;
- Identified the narrative water quality objectives or applicable water quality criteria;
- Identified the appropriate interpretive evaluation guideline that potentially represented water quality objective attainment or protection of beneficial uses. Depending on the beneficial use and narrative standard, the following considerations were used in the selection of evaluation guidelines:

1. Sediment Quality Guidelines for Marine, Estuarine, and Freshwater Sediments: SWRCB staff selected sediment quality guidelines published in the peer-reviewed literature or developed by state or federal agencies. Acceptable guidelines included selected values (e.g., effects range-median, probable effects level, probable effects concentration), and other sediment quality guidelines. Only those sediment guidelines that are predictive of sediment toxicity were used (i.e., those guidelines that have been shown in published studies to be predictive of sediment toxicity in 50 percent or more of the samples analyzed). The sediment quality guidelines used are presented in Table 1.

TABLE 1: SEDIMENT QUALITY GUIDELINES FOR MARINE, ESTUARINE, AND FRESHWATER SEDIMENTS

	Marine and Estuarine Sediments			Freshwater Sediments
Chemical	**Effects Range-Median[1]**	**Probable Effects Level[2]**	**Other Sediment Quality Guidelines**	**Probable Effect Concentration[3]**
Antimony	25 ug/g dw			
Arsenic	70 ug/g dw			33.0 mg/kg dw
Cadmium		4.21 ug/g dw		4.98 mg/kg dw
Chromium	370 ug/g dw			111 mg/kg dw
Copper	270 ug/g dw			149 mg/kg dw
Lead		112.18 ug/g dw		128 mg/kg dw
Mercury			2.1 ug/g[4]	1.06 mg/kg dw
Nickel				48.6 mg/kg dw
Silver		1.77 ug/g dw		
Zinc	410 ug/g dw			459 mg/kg dw
Chlordane				17.6 ug/kg dw
Total Chlordane	6 ng/g[5] dw			
Dieldrin	8 ng/g dw			61.8 ug/kg dw
Sum DDD				28.0 ug/kg dw
Sum DDE				31.3 ug/kg dw
Sum DDT				62.9 ug/kg dw

Chemical	Marine and Estuarine Sediments: Effects Range-Median[1]	Marine and Estuarine Sediments: Probable Effects Level[2]	Marine and Estuarine Sediments: Other Sediment Quality Guidelines	Freshwater Sediments: Probable Effect Concentration[3]
Total DDTs				572 ug/kg dw
Endrin			0.76 ug/g oc[6]	207 ug/kg dw
Lindane			0.37 ug/g oc[8]	4.99 ug/kg dw
Total PCBs			400 ng/g[7]	676 ug/kg dw
Anthrazene				845 ug/kg dw
Fluorene				536 ug/kg dw
Naphthalene				561 ug/kg dw
2-methyl-naphthalene		201.28 ng/g dw		
Phenanthrene		543.53 ng/g dw		1,170 ug/kg dw
Low molecular weight PAHs		1,442 ng/g dw		
Benz[a]anthrazene		692.53 ng/g dw		1,050 ug/kg dw
Benzo[a]pyrene		763.22 ng/g dw		1,450 ug/kg dw
Chrysene		845.98 ng/g dw		1,290 ug/kg dw
Dibenz[a,h]-anthrazene	260 ng/g dw			
Fluoranthene				2,230 ug/kg dw
Pyrene		1,397.4 ng/g dw		1,520 ug/kg dw
High molecular weight PAHs	9,600 ng/g dw			
Total PAHs			1,800 ug/g[8]	22,800 ug/kg dw

[1]Long et al., 1995
[2]MacDonald et al., 1996
[3]MacDonald et al., 2000a
[4]PTI Environmental Services, 1991
[5]Long and Morgan, 1990
[6]USEPA, 1993d
[7]MacDonald et al., 2000b
[8]Fairey et al., 2001
dw = Dry Weight
oc = Organic Carbon

2. Evaluation Guidelines for Protection from the Consumption of Fish and Shellfish: SWRCB staff used evaluation guidelines published by USEPA or OEHHA. Maximum Tissue Residue Levels (MTRLs) and Elevated Data Levels (EDLs) were not used to evaluate fish or shellfish tissue data. The tissue guidelines used are presented in Table 2.

TABLE 2: SCREENING VALUES FOR THE PROTECTION OF HUMAN HEALTH FROM THE CONSUMPTION OF FISH AND SHELLFISH

Contaminant	OEHHA Screening Values[1]	USEPA Screening Values[2]
Arsenic	1.0 mg/kg	1.2 mg/kg[3]
Cadmium	3.0 mg/kg	
Mercury	0.3 mg/kg	
Selenium	2.0 mg/kg	
Tributyltin		1.2 mg/kg
Total DDT	100 µg/kg	
Total PCBs	20 µg/kg	
Total PAHs		5.47 µg/kg
Chlordane (total)	30 µg/kg	

Contaminant	OEHHA Screening Values[1]	USEPA Screening Values[2]
Dieldrin	2.0 µg/kg	
Endosulfan (total)	20,000 µg/kg	
Endrin	1,000 µg/kg	
Lindane (gamma hexachlorocyclohexane)	30 µg/kg	
Heptachlor epoxide	4.0 µg/kg	
Hexachlorobenzene	20 µg/kg	
Methyl mercury	0.3 mg/kg[4]	
Mirex		800 µg/kg
Toxaphene	30 µg/kg	
Diazinon	300 µg/kg	
Chlorpyrifos	10,000 µg/kg	
Disulfoton	100 µg/kg	
Terbufos		80 µg/kg
Oxyfluorfen		546 µg/kg
Ethion	2,000 µg/kg	
Dioxin	0.3 ng/kg	

[1]Brodberg and Pollock, 1999
[2]USEPA, 2000b
[3]USEPA, 2000a
[4] Klassing and Brodberg, 2004

mg/kg = milligrams per kilogram (parts per million)
ng/kg = nanograms per kilogram
(measurements based on wet tissue samples)

3. Evaluation Guidelines for Protection of Aquatic Life from Bioaccumulation of Toxic Substances: SWRCB staff used evaluation values for the protection of aquatic life published by the National Academy of Science. These tissue guidelines are presented in Table 3.

TABLE 3: WILDLIFE PROTECTION CRITERIA FOR EVALUATION OF BIOACCUMULATION MONITORING DATA

Contaminant	NAS Guidelines*
Aldrin	100 µg/kg
Total DDT	1,000 µg/kg
Total PCBs	500 µg/kg
Chlordane (total)	100 µg/kg
Dieldrin	100 µg/kg
Endosulfan (total)	100 µg/kg
Endrin	100 µg/kg
Lindane (gamma hexachlorocyclohexane)	100 µg/kg
hexachlorocyclohexane (total)	100 µg/kg
Heptachlor	100 µg/kg
Heptachlor epoxide	100 µg/kg
Toxaphene	100 µg/kg

*NAS, 1972.

µg/kg = micrograms per kilogram
(measurements based on wet tissue samples)

4. Water Quality Guidelines: SWRCB staff used water quality evaluation guidelines that were:
   - Applicable to the beneficial use.
   - Protective of the beneficial use.
   - Linked to the pollutant under consideration.
   - Scientifically-based and peer reviewed.
   - Well described.
   - Identified a range above which impacts occur and below which no or few impacts are predicted.

   These water quality guidelines are presented in Table 4.

TABLE 4: WATER QUALITY GUIDELINES

Pollutant	Water Quality Guidelines*
Chlorpyrifos – 4-day average (freshwater)	0.014 μg/L[1]
Chlorpyrifos – 1-hour average (freshwater)	0.025 μg/L[1]
Diazinon – 4-day average (freshwater)	0.1 μg/L[1]
Diazinon – 1-hour average (freshwater)	0.16 μg/L[1]
Perchlorate (for protection of drinking water quality)	6.0 μg/L[2]
Temperature, 7-day mean (for protection of coho salmon)	14.8°C[3]
Temperature, 7-day mean (for protection of steelhead or rainbow trout)	17.0°C[3]
Temperature, maximum weekly average temperature (for protection of coho salmon)	19.7°C[3]
Temperature, maximum weekly average temperature (for protection of steelhead or rainbow trout)	19.6°C[3]
Temperature, maximum annual average temperature (for protection of steelhead or rainbow trout)	21.0°C[3]
Turbidity (for protection of fish populations)	25 NTU[4]

[1]Siepmann and Finlayson, 2000; Finlayson, 2004
[2]Fan et al., 2004
[3]Sullivan et al., 2000
[4]Sigler et al., 1984

Exotic/Invasive Species

On March 30, 2005, the U.S. District Court for the Northern District of California granted summary judgment to the plaintiffs in Northwest Environmental Advocates, et al. vs. USEPA (2005). The suit challenged 30-year old federal regulations that exempted ballast water from the NPDES requirement. The Judge ruled that, among other things, ballast water contains many varieties of pollutants, including "invasive species," which the court held are "biological materials" within the definition of "pollutants" as described in CWA.

When the Listing Policy was developed SWRCB relied on USEPA's 1999 determination that exotic/invasive species did not fall under CWA definition of "pollutant" (SWRCB, 2004c). This position is no longer supported by USEPA in light of the court's ruling.

In developing recommendations for the 2006 section 303(d) list, the provisions of the Listing Policy were applied to the data and information available for exotic/invasive species. At present, no evaluation guidelines are available that can be used to assess the potential for impact from exotic species. However, studies were available in the record that allowed a review of the trends in the presence of some exotic/invasive species and their potential influence on native species. To evaluate these trends, section 3.9 of the Listing Policy was used. In these assessments if native species declined as exotic/invasive species diversity or abundance increased then it was inferred that exotic species contributed to or caused the impacts on native species. Changes in relative diversity and abundance of native species may also be caused by habitat alteration, changes in water flow, or hydromodification.

Affected Area Changes

For the section 303(d) list, the "size affected" is an estimated value and many of the listings cover very large watersheds. Since 1998 there has been an ongoing effort by SWRCB and RWQCB staff to more clearly represent the affected size of all section 303(d)-listed waters.

The "size affected" values for the 2006 section 303(d) list submittal have been changed in several cases to reflect the more precise measurements obtained from the GIS database (GeoWBS) and to more precisely reflect the spatial extent of where standards are not attained.

Due to our lack of understanding of the full impact of a pollutant until TMDLs are developed, the values for "size affected" may not reflect the true area of impact.

Major changes in the affected area for individual water bodies were described or acknowledged in fact sheets.

Faulty Listings

During the development of the 2006 section 303(d) list, several listings were reevaluated when it was clear that the original data, guideline, or basis for the listing was "faulty." Section 4 of the Listing Policy states:

> "All listings of water segments shall be removed from the section 303(d) list if the listing was based on faulty data, and it is demonstrated that the listing would not have occurred in the absence of such faulty data. Faulty data include, but are not limited to, typographical errors, improper quality assurance/quality control procedures, or limitations related to the analytical methods that would lead to improper conclusions regarding the water quality status of the segment."

In addition to these factors waters and pollutants were recommended for removal from the list if:

- Data or information to support the original listing simply does not exist.
- Information justifying the original listing was anecdotal.
- The evaluation guideline used originally would lead to improper conclusions regarding the status of the water segment. An evaluation guideline that does not satisfy the requirements of section 6.1.3 of the Listing Policy would lead to an improper conclusion. If data were reanalyzed using a defensible guideline, the water body-pollutant combination was

considered for listing as if it had never been listed before (i.e., section 3 of the Listing Policy was used). This approach was used to avoid requiring a large burden of proof to delist a water body pollutant combination if the original listing was found to be baseless in terms of Listing Policy procedures.

TMDL Scheduling

A schedule is recommended for waters on the section 303(d) list that identifies the TMDLs that will be established within the current listing cycle and the number of TMDLs scheduled to be developed thereafter.

For water quality limited segments needing a TMDL, a completion schedule was developed (in compliance with federal law and regulation) based on the following Listing Policy provisions:

- Water body significance (such as importance and extent of beneficial uses, threatened and endangered species concerns, and size of water body);
- Degree that water quality objectives are not met or beneficial uses are not attained or threatened (such as the severity of the pollution or number of pollutants/stressors of concern) [40 CFR 130.7(b)(4)];
- Degree of impairment;
- Potential threat to human health and the environment;
- Water quality benefits of activities ongoing in the watershed;
- Potential for beneficial use protection and recovery;
- Degree of public concern;
- Availability of funding; and
- Availability of data and information to address the water quality problem.

The recommendation for TMDL completion is the year that RWQCB will adopt the TMDL. In some circumstances TMDLs have been adopted by RWQCBs in the past but the approvals from SWRCB or USEPA are pending. In these cases, the water body-pollutant combination will remain in the Water Quality Limited Segments category of the section 303(d) list. For those TMDLs that have been developed and approved by USEPA and the implementation plan has been approved, the water body and pollutant was placed in the Water Quality Limited Segments Being Addressed category of the section 303(d) list.

TMDLs with completion dates prior to the next list update (scheduled currently for 2008) already have resources dedicated to the effort. Schedules for non-consent decree TMDLs scheduled to be completed after 2008 should be considered tentative. Changes to the section 303(d) list in the future could result in substantial changes to scheduled completion dates established for completion after 2008.

Public Participation

The SWRCB has scheduled public workshops to receive comment on the proposed section 303(d) list. The first workshop will be held in southern California (on December 1, 2005) and the second workshop will be held in northern California (on December 6, 2005). The SWRCB staff will respond in writing to all comments received.

Additions, Deletions, and Changes

The basis for the 2006 section 303(d) list is the 2002 list (Appendix 1). All listings in 2002 section 303(d) list will remain unless a change is recommended in this staff report. A summary of the number recommendations to add or delete waters and pollutants on the section 303(d) list is presented in Table 5. It is recommended that SWRCB add 464 water quality limited segments (water body-pollutant combinations) to the section 303(d) list. It is further recommended that 177 water body-pollutant combinations be removed from the section 303(d) list. The additions and deletions are presented in Tables 6 and 7, respectively. Several changes to the affected area for a variety of listings are also recommended (Table 8). Each of these proposed changes are documented in fact sheets contained in Volumes II and III of this staff report.

TABLE 5: SUMMARY OF RECOMMENDATIONS FOR LISTING AND DELISTING.

Region	Numbers of Recommendations to	
	List	Delist
North Coast (1)	11	6
San Francisco Bay (2)	40	22
Central Coast (3)	71	20
Los Angeles (4)	92	95
Central Valley (5)	46	4
Lahontan (6)	8	24
Colorado River Basin (7)	29	0
Santa Ana (8)	45	1
San Diego (9)	122	5
Statewide	464	177

The 2002 section 303(d) list has 1,883 water body-pollutant combinations. With the recommendations presented in Table 5, the section 303(d) would increase by 287 water quality limited segments.

Schedules

In developing the 2006 section 303(d) submittal, the staff reassessed the priorities established in the 2002 section 303(d) list. Based on budgeted resources currently available and the factors presented in section 5 of the Listing Policy, SWRCB staff recommends the schedules for completion of TMDLs in Table 9. All other waters, not presented in Table 9, are recommended for completion by 2019.

Administrative Record

The administrative record contains all data and information used in the development of the 2006 section 303(d) list. Copies of the staff documents supporting the 2006 list submittal are posted on the SWRCB website at:

http://www.waterboards.ca.gov/tmdl/303d_update.html

The administrative record supporting the proposed 2006 section 303(d) list is housed in the Division of Water Quality, State Water Resources Control Board, 1001 I Street, 15th Floor, Sacramento, California. To make an appointment to review the record, please call Mr. Randal Yates at (916) 341-5533.

References

Brodberg, P.K., and G.A. Pollock. 1999. Prevalence of selected target chemical contaminants in sport fish from two California lakes: Public health designed screening study. Sacramento, CA: Pesticide and Environmental Toxicology Section, Office of Environmental Health Hazard Assessment. California Environmental Protection Agency.

Fairey, R., E.R. Long, C.A. Roberts, B.R. Anderson, B.M. Phillips, J.W. Hunt, H.R. Puckett, and C.J. Wilson. 2001. An evaluation of methods for calculating mean sediment quality guideline quotients as indicators of contamination and acute toxicity to amphipods by chemical mixtures. *Environmental Toxicology and Chemistry* 20: 2276-2286.

Finlayson, B. 2004. Water quality for diazinon. Memorandum to J. Karkoski, Central Valley RWQCB. Sacramento, CA: Pesticide Investigations Unit, Department of Fish and Game.

Klassing, S., and B. Brodberg. 2004. Fish consumption guidelines for Lake Natoma and the Lower American River, Sacramento County. Sacramento, CA: Office of Environmental Health Hazard Assessment.

Long, E.R., D.D. MacDonald, S.L. Smith, and F.L. Calder. 1995. Incidence of adverse biological effects within ranges of chemical concentrations in marine and estuarine sediments. *Environ. Manag*. 19(1): 81-97.

Long, E.R., and L.G. Morgan. 1990. The potential for biological effects of sediment-sorbed contaminants tested in the National Status and Trends Program. NOAA Technical Memorandum NOS OMA 52. Seattle, WA: National Oceanic and Atmospheric Administration.

MacDonald, D.D., C.G. Ingersoll, and T.A. Berger. 2000a. Development and evaluation of consensus-based sediment quality guidelines for freshwater ecosystems. *Arch. Environ. Contam. Toxicol*. 39: 20-31.

MacDonald, D.D., L.M. Dipinto, J. Fields, C.G. Ingersoll, E.R. Long, and R.C. Swartz. 2000b. Development and evaluation of consensus-based sediment effect concentrations for polychlorinated biphenyls. *Environ. Toxicol. Chem.* 19(5): 1403-1413.

MacDonald, D.D., R.S. Carr, F.D. Calder, E.R. Long, and C.G. Ingersoll. 1996. Development and evaluation of sediment quality guidelines for Florida coastal waters. *Ecotoxicology.* 5: 253-278.

NAS, National Academy of Engineering. 1973. Water Quality Criteria 1972. EPA-R3-73-033. Washington, D.C.: U.S. Environmental Protection Agency.

Northwest Environmental Advocates, The Ocean Conservancy, and Waterkeepers of Northern California and its projects Center for Marine Conservation, and San Francisco Baykeeper and Deltakeeper vs. USEPA. 2005. Order granting plaintiff's motion for summary judgment; denying defendant's motion for summary judgment. No. C 03-05760 SI. U.S. District Court for the Northern California District of California.

PTI Environmental Services. 1991. Pollutants of concern in Puget Sound. EPA 910/9-91-003. Seattle, WA: U.S. Environmental Protection Agency.

Siepmann, S., and B. Finlayson. 2000. Water quality criteria for diazinon and chlorpyrifos. Administrative Report 00-3. Rancho Cordova, CA. Pesticide Investigations Unit, Office of Spills and Response. California Department of Fish and Game.

Sigler, J.W., T.C. Bjornn, and F.H. Everest. 1984. Effects of chronic turbidity on density and growth of steelheads and coho salmon. *Transactions of the American Fisheries Society* 113:142-150.

Sullivan, K., D.J. Martin, R.D. Cardwell, J.E. Toll, and S. Duke. 2000. An analysis of the effects of temperature on salmonids of the Pacific Northwest with implications for selecting temperature criteria. Portland, OR: Sustainable Ecosystem Institute.

SWRCB. 2003. 2002 CWA section 303(d) list of water quality limited segments. SWRCB Resolution No. 2003-0009. Approved by USEPA July 2003. Sacramento, CA: State Water Resources Control Board.

SWRCB. 2004a. Notice of public solicitation of water quality data and information—2004 clean water act section 303(d) list. Letter sent to interested parties by Celeste Cantu, Executive Director. Sacramento, CA: State Water Resources Control Board.

SWRCB. 2004b. Water Quality Control Policy for Developing California's Section 303(d) List. Resolution No. 2004-0063. Sacramento, CA: State Water Resources Control Board. California Environmental Protection Agency.

SWRCB. 2004c. Final Functional Equivalent Document: Water Quality Control Policy for Developing California's Section 303(d) List. Resolution No. 2004-0063. Sacramento, CA: State Water Resources Control Board. California Environmental Protection Agency.

SWRCB. 2005a. Evaluation of data and information related to the Clean Water Act section 303(d) list of water quality limited segments. Water body fact sheets supporting "Do Not List" recommendations. Sacramento, CA: Division of Water Quality, State Water Resources Control Board.

SWRCB. 2005a. Evaluation of data and information related to the Clean Water Act section 303(d) list of water quality limited segments. Water body fact sheets supporting "Do Not Delist" recommendations. Sacramento, CA: Division of Water Quality, State Water Resources Control Board.

USEPA. 1993d. Technical basis for establishing sediment quality criteria for nonionic contaminants for the protection of benthic organisms using equilibrium partitioning. EPA-822-R-93-011. Washington, D.C.: Office of Science and Technology, U.S. Environmental Protection Agency.

USEPA. 2000a. Guidance for the data quality objectives process. EPA-600-R-96-055, EPA QA/G-4. Washington, D.C: Office of Research and Development, U.S. Environmental Protection Agency.

USEPA. 2000b. Guidance for assessing chemical contaminant data for use in fish advisories. Volume 1: Fish sampling and analysis. Third edition. EPA-823-B-00-007. Washington, D.C.: Office of Water, U.S. Environmental Protection Agency.

TABLE 6: ADDITIONS TO THE SECTION 303(D) LIST.

Region	Water Segment	Pollutant
1		
	Bodega HU, Bodega Harbor HA	
		Exotic Species
	Clair Engle Lake	
		Mercury
	Klamath River HU, Lower HA, Klamath Glen HSA	
		Sedimentation/Siltation
	Mendocino Coast HU, Albion River HA, Albion River	
		Temperature, water
	Mendocino Coast HU, Garcia River HA, Garcia River	
		Sediment
	Mendocino Coast HU, Noyo River HA, Noyo River	
		Temperature, water
	Mendocino Coast HU, Noyo River HA, Pudding Creek	
		Temperature, water
	Russian River HU, Lower Russian River HA, Guerneville HSA	
		pH
	Russian River HU, Middle Russian River HA, Big Sulphur Creek HSA	
		Specific Conductance
	Russian River HU, Middle Russian River HA, Laguna de Santa Rosa	
		Mercury
	Russian River HU, Middle Russian River HA, Santa Rosa Creek	
		Specific Conductance
2		
	Anderson Reservoir	
		Mercury Polychlorinated biphenyls
	Bon Tempe Reservoir	
		Mercury
	Del Valle Reservoir	
		Mercury Polychlorinated biphenyls
	Hill Slough	
		Mercury
	Islais Creek	
		Sediment Bioassays for Estuarine and Marine Water
	Lafayette Reservoir	
		Mercury Polychlorinated biphenyls
	Lake Chabot (Solano Co)	
		Chlordane DDT Dieldrin Mercury Polychlorinated biphenyls
	Napa River	
		Mercury

Region	Water Segment	Pollutant
	Nicasio Reservoir	
		Mercury
	Oakland Inner Harbor (Fruitvale Site, part of SF Bay, Central)	
		Sediment Bioassays for Estuarine and Marine Water
	Pacific Ocean at Pillar Point	
		Mercury
	San Leandro Bay (part of SF Bay, Central)	
		Chlordane
		Dieldrin
	San Pablo Reservoir	
		Chlordane
		Dieldrin
		Heptachlor epoxide
		Polychlorinated biphenyls
		Toxaphene
	Shadow Cliffs Reservoir	
		Mercury
		Polychlorinated biphenyls
	Soulejule Reservoir	
		Mercury
		Polychlorinated biphenyls
	Stege Marsh	
		Chlordane
		Copper
		Dieldrin
		Mercury
		Polychlorinated biphenyls
		Zinc
	Stevens Creek	
		Chlordane
		Dieldrin
		Mercury
		Polychlorinated biphenyls
		Toxicity
3		
	Arroyo Paredon	
		Boron
		Nitrate as Nitrate (NO3)
		Toxicity
	Bell Creek (Santa Barbara Co)	
		Nitrate as Nitrate (NO3)
	Bradley Canyon Creek	
		Ammonia (Unionized) - Toxin
		Nitrate as Nitrate (NO3)
	Bradley Channel	
		Nitrate as Nitrate (NO3)
	Canada De La Gaviota	
		Boron
	Carbonera Creek	
		Nutrients
	Carneros Creek	
		Ammonia (Unionized) - Toxin

Region	Water Segment	Pollutant
	Casmalia Canyon Creek	Sedimentation/Siltation
	Chorro Creek	Oxygen, Dissolved Sedimentation/Siltation
	Cuyama River	Boron
	Franklin Creek	Nitrate as Nitrate (NO3)
	Gabilan Creek	Nitrate as Nitrate (NO3)
	Glen Annie Canyon	Nitrate as Nitrate (NO3)
	Llagas Creek	Nitrate as Nitrate (NO3)
	Lompico Creek	Nutrients
	Los Osos Creek	Fecal Coliform Sediment
	Main Street Canal	Ammonia (Unionized) - Toxin
	Moro Cojo Slough	Ammonia (Unionized) - Toxin
	Morro Bay	Arsenic Oxygen, Dissolved Pathogens Sedimentation/Siltation
	Natividad Creek	Nitrate as Nitrate (NO3)
	Old Salinas River Estuary	Ammonia (Unionized) - Toxin
	Orcutt Creek	Ammonia (Unionized) - Toxin Chlorpyrifos DDT Dieldrin
	Oso Flaco Creek	Ammonia (Unionized) - Toxin
	Oso Flaco Lake	Dieldrin
	Pajaro River	Boron
	Pennington Creek	Fecal Coliform
	Prefumo Creek	Nitrate as Nitrate (NO3)
	Quail Creek	Nitrate as Nitrate (NO3)
	Rincon Creek	Boron Toxicity
	Salinas Reclamation Canal	

Region	Water Segment	Pollutant
		Ammonia (Unionized) - Toxin
	Salinas River (lower, estuary to near Gonzales Rd crossing, watersheds 30910 and 30920)	
		Nitrate as Nitrate (NO3)
		Toxaphene
	San Antonio Creek (San Antonio Watershed, Rancho del las Flores Bridge at Hwy 135 to downstream at Railroad Bridge)	
		Ammonia as Nitrogen
		Boron
		Nitrogen, Nitrite
	San Benito River	
		Fecal Coliform
	San Bernardo Creek	
		Fecal Coliform
	San Diego Creek	
		Toxaphene
	San Lorenzo Creek	
		Fecal Coliform
	San Lorenzo River	
		Nutrients
		Sediment
	San Luis Obispo Creek	
		Nitrate as Nitrate (NO3)
	San Luisito Creek	
		Total Fecal Coliform
	San Vicente Creek	
		Turbidity
	Santa Maria River	
		Ammonia (Unionized) - Toxin
		Chlorpyrifos
		DDT
		Dieldrin
		Endrin
	Santa Rita Creek (San Luis Obispo County)	
		Nitrate as Nitrate (NO3)
	Santa Ynez River (below city of Lompoc to Ocean)	
		Nitrate as Nitrate (NO3)
	Shingle Mill Creek	
		Nutrients
	Shuman Canyon Creek	
		Sedimentation/Siltation
	Soda Lake	
		Ammonia (Unionized) - Toxin
	Tembladero Slough	
		Ammonia (Unionized) - Toxin
	Warden Creek	
		Fecal Coliform
4		
	Aliso Canyon Wash	
		Bacteria Indicators
		Copper
	Ballona Creek	
		Cyanide

Region	Water Segment	Pollutant
		Trash
	Ballona Creek Estuary	
		Copper
	Burbank Western Channel	
		Ammonia
		Copper
		Cyanide
		Fecal Coliform
		Nitrite
		Zinc
	Calleguas Creek Reach 3 (Potrero Road upstream to confluence with Conejo Creek on 1998 303d list)	
		Chlordane
		DDT
		Dieldrin
		Toxaphene
	Coyote Creek	
		Ammonia
		Cyanide
		Diazinon
		Nitrogen, Nitrite
		pH
	Dominguez Channel (lined portion above Vermont Ave)	
		Aluminum
		Enterococcus
		Zinc
	Dominguez Channel Estuary (unlined portion below Vermont Ave)	
		Benzo(a)pyrene (PAHs)
		Chrysene (C1-C4)
		Phenanthrene
		Polychlorinated biphenyls
		Pyrene
	Duck Pond Agricultural Drains/Mugu Drain/Oxnard Drain No 2	
		Chlordane
		DDT
		Toxaphene
	Echo Park Lake	
		Trash
	Lake Lindero	
		Selenium
	Leo Carillo Beach (South of County Line)	
		Coliform Bacteria
	Lincoln Park Lake	
		Trash
	Los Angeles Harbor - Cabrillo Marina	
		DDT
		Polychlorinated biphenyls
	Los Angeles Harbor - Inner Cabrillo Beach Area	
		Bacteria Indicators
		Copper
		DDT

Region	Water Segment	Pollutant
		Polychlorinated biphenyls
	Los Angeles River Estuary (Queensway Bay)	
		Trash
	Los Angeles River Reach 1 (Estuary to Carson Street)	
		Cyanide
		Diazinon
		Nutrients (Algae)
		Trash
	Los Angeles River Reach 2 (Carson to Figueroa Street)	
		Trash
	Los Angeles River Reach 3 (Figueroa St. to Riverside Dr.)	
		Ammonia
		Trash
	Los Angeles River Reach 4 (Sepulveda Dr. to Sepulveda Dam)	
		Trash
	Los Angeles River Reach 5 (within Sepulveda Basin)	
		Trash
	Los Angeles/Long Beach Inner Harbor	
		Copper
		DDT
		Polychlorinated biphenyls
		Zinc
	Los Angeles/Long Beach Outer Harbor (inside breakwater)	
		DDT
	Los Cerritos Channel	
		Aluminum
		Bis(2ethylhexyl)phthalate
	Malibu Creek	
		Aluminum
		Selenium
		Sulfates
	Marina del Rey Harbor - Back Basins	
		Sediment Bioassays for Estuarine and Marine Water
	Peck Road Park Lake	
		Trash
	Piru Creek (from gaging station below Santa Felicia Dam to headwaters)	
		Chloride
	Port Hueneme Pier	
		Polychlorinated biphenyls
	Rio Hondo Reach 1 (Confl. LA River to Snt Ana Fwy)	
		Ammonia
	San Gabriel River Estuary	
		Ammonia as Nitrogen
	San Gabriel River Reach 1 (Estuary to Firestone)	
		Ammonia
		pH
	San Gabriel River Reach 2 (Firestone to Whittier Narrows Dam	
		Aluminum

Region	Water Segment	Pollutant
		Ammonia
	San Gabriel River, East Fork	
		Trash
	San Jose Creek Reach 1 (SG Confluence to Temple St.)	
		Ammonia
	San Jose Creek Reach 2 (Temple to I-10 at White Ave.)	
		Ammonia
	Santa Clara River Reach 1 (Estuary to Hwy 101 Bridge)	
		Toxicity
	Santa Clara River Reach 11 (Piru Creek, from confluence with Santa Clara River Reach 4 to gaging station below Santa Felicia Dam)	
		Boron
		Sulfates
	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) lists)	
		Aluminum
		Ammonia
		Chloride
		Diazinon
		Polychlorinated biphenyls
	Santa Clara River Reach 6 (W Pier Hwy 99 to Bouquet Cyn Rd) (was named Santa Clara River Reach 8 on 2002 303(d) lists)	
		Ammonia
		Chloride
		Chlorpyrifos
		Diazinon
		Nitrogen, Nitrite
		Toxicity
	Sawpit Creek	
		Bis(2ethylhexyl)phthalate
		Fecal Coliform
	Ventura Marina Jetties	
		DDT
		Polychlorinated biphenyls
5		
	American River, South Fork	
		Mercury
	Bear River (Amador Co, Lower Bear River Reservoir to Mokelumne River, N Fork)	
		Copper
	Carson Creek (from WWTP to Deer Creek)	
		Aluminum
		Copper
		Manganese
	Clear Lake	
		Mercury
	Cosumnes River	
		Exotic Species
	Deer Creek (Sacramento County)	
		Iron

Region	Water Segment	Pollutant
	Del Puerto Creek	
		Pyrethroid
	Delta Waterways (Stockton Ship Channel)	
		Exotic Species
	Delta Waterways (central portion)	
		Exotic Species
	Delta Waterways (eastern portion)	
		Exotic Species
	Delta Waterways (export area)	
		Exotic Species
	Delta Waterways (northern portion)	
		DDT
		Exotic Species
		Mercury
		Polychlorinated biphenyls
	Delta Waterways (northwestern portion)	
		Exotic Species
	Delta Waterways (southern portion)	
		DDT
		Exotic Species
	Delta Waterways (western portion)	
		Exotic Species
	Feather River, Lower (Lake Oroville Dam to Confluence with Sacramento River)	
		Chlorpyrifos
	Feather River, North Fork (below Lake Almanor)	
		Mercury
		Temperature, water
	Grasslands Marshes	
		Selenium
	Grayson Drain (at outfall)	
		Sediment Bioassays -- Chronic Toxicity -- Freshwater
	Ingram Creek (from confluence with Hospital Creek to Hwy 33 crossing)	
		Pyrethroid
	Ingram Creek (from confluence with San Joaquin River to confluence with Hospital Creek)	
		Pyrethroid
	Kaweah Lake	
		Mercury
	Lower Bear River Reservoir	
		Copper
	Main Drainage Canal	
		Diazinon
	Merced River, Lower (McSwain Reservoir to San Joaquin River)	
		Mercury
	Mokelumne River, North Fork	
		Copper
	Morrison Creek	
		Chlorpyrifos
	Natoma, Lake	
		Mercury

Region	Water Segment	Pollutant
	Orestimba Creek (below Kilburn Road)	
		Sediment Bioassays -- Chronic Toxicity -- Freshwater
	Sacramento River (Keswick Dam to Cottonwood Creek)	
		Cadmium
		Copper
		Zinc
	Sacramento River (Red Bluff to Knights Landing)	
		Mercury
	Salt Slough (upstream from confluence with San Joaquin River)	
		Selenium
	San Joaquin River (Friant Dam to Mendota Pool)	
		Exotic Species
	San Joaquin River (Merced River to Tuolumne River)	
		Selenium
	Sugar Pine Creek (tributary to Lower Bear River Reservoir)	
		Copper
	Wadsworth Canal	
		Diazinon
	Willow Creek (Madera County)	
		Temperature, water
6		
	Crowley Lake	
		Ammonia
		Oxygen, Dissolved
	Heavenly Valley Creek (source to USFS boundary)	
		Sedimentation/Siltation
	Indian Creek Reservoir	
		Phosphorus
	Mono Lake	
		Salinity/TDS/Chlorides
	Searles Lake	
		Petroleum Products
		Salinity/TDS/Chlorides
	Susan River	
		Mercury
7		
	Alamo River	
		Chlorpyrifos
		DDT
		Dieldrin
		Polychlorinated biphenyls
		Sedimentation/Siltation
		Toxaphene
	All American Canal	
		Specific Conductance
		Sulfates
		Total Dissolved Solids
	Coachella Valley Storm Channel	
		Toxaphene
	Colorado River (Imperial Reservoir to California-	

Region	Water Segment	Pollutant
	Mexico Border)	
		Manganese
		Selenium
	Imperial Valley Drains	
		DDT
		Dieldrin
		Endosulfan
		Polychlorinated biphenyls
		Toxaphene
	New River (Imperial)	
		Chlordane
		Chlorpyrifos
		DDT
		Diazinon
		Dieldrin
		Mercury
		Pathogens
		Polychlorinated biphenyls
		Selenium
		Toxaphene
		Toxicity
	Palo Verde Outfall Drain	
		DDT
8		
	Anaheim Bay	
		Polychlorinated biphenyls
		Toxicity
	Balboa Beach	
		DDT
		Dieldrin
		Polychlorinated biphenyls
	Big Bear Lake	
		Mercury
		Polychlorinated biphenyls
	Elsinore, Lake	
		Polychlorinated biphenyls
	Huntington Beach State Park	
		Polychlorinated biphenyls
	Huntington Harbour	
		Chlordane
		Lead
		Toxicity
	Newport Bay, Lower	
		Chlorpyrifos
		Copper
		DDT
		Diazinon
		Fecal Coliform
		Nutrients
		Polychlorinated biphenyls
		Sedimentation/Siltation
	Newport Bay, Upper (Ecological Reserve)	
		Chlorpyrifos
		Copper

Region	Water Segment	Pollutant
		DDT
		Diazinon
		Fecal Coliform
		Nutrients
		Polychlorinated biphenyls
		Sedimentation/Siltation
	Peters Canyon Channel	
		DDT
		Toxaphene
	Rhine Channel	
		Copper
		Lead
		Mercury
		Polychlorinated biphenyls
	San Diego Creek Reach 1	
		Fecal Coliform
		Nutrients
		Sedimentation/Siltation
		Selenium
		Zinc
	San Diego Creek Reach 2	
		Diazinon
		Nutrients
		Sedimentation/Siltation
		Unknown Toxicity
	Santa Ana Delhi Channel	
		Toxaphene
	Seal Beach	
		Polychlorinated biphenyls
9		
	Agua Hedionda Creek	
		Manganese
		Selenium
		Sulfates
	Barrett Lake	
		Color
		Manganese
		pH (high)
	Batiquitos Lagoon	
		Phosphorus
	Buena Creek	
		DDT
		Nitrate and Nitrite
		Phosphate
		Sulfates
	Buena Vista Creek	
		Sediment Bioassays -- Chronic Toxicity -- Freshwater
		Total Dissolved Solids
	Cottonwood Creek (in west San Diego County)	
		DDT
		Phosphorus
		Sediment Bioassays -- Chronic Toxicity -- Freshwater

Region	Water Segment	Pollutant
	De Luz Creek	
		Iron
		Manganese
		Sulfates
	Del Dios Creek	
		Sulfates
	El Capitan Lake	
		Antimony
		Beryllium
		Color
		Manganese
		Total Dissolved Solids
		pH (high)
	Encinitas Creek	
		Phosphorus
	English Canyon	
		Benzo[b]fluoranthene
		Dieldrin
		Sediment Bioassays -- Chronic Toxicity -- Freshwater
	Escondido Creek	
		DDT
		Manganese
		Phosphate
		Selenium
		Sulfates
		Total Dissolved Solids
	Felicita Creek	
		Aluminum
	Forester Creek	
		Oxygen, Dissolved
		Phosphorus
	Green Valley Creek	
		Chloride
		Manganese
		Pentachlorophenol (PCP)
	Hodges, Lake	
		Manganese
		Turbidity
		pH (high)
	Kit Carson Creek	
		Pentachlorophenol (PCP)
	Laguna Canyon Channel	
		Sediment Bioassays -- Chronic Toxicity -- Freshwater
	Loma Alta Creek	
		Total Dissolved Solids
	Long Canyon Creek	
		Total Dissolved Solids
	Los Penasquitos Creek	
		Phosphate
		Total Dissolved Solids
	Loveland Reservoir	
		Aluminum

Region	Water Segment	Pollutant
		Manganese
		Oxygen, Dissolved
	Miramar Reservoir	
		Sulfates
		Total Dissolved Solids
	Morena Reservoir	
		Color
		Manganese
		pH (high)
	Murray Reservoir	
		Total Dissolved Solids
		pH
	Murrieta Creek	
		Arsenic
		Copper
		Iron
		Manganese
		Nitrogen
		Zinc
	Oso Creek (at Mission Viejo Golf Course)	
		Chloride
		Sulfates
		Total Dissolved Solids
	Otay Reservoir, Lower	
		Color
		Iron
		Manganese
		Nitrogen, ammonia (Total Ammonia)
		pH (high)
	Pacific Ocean Shoreline, Imperial Beach Pier	
		Polychlorinated biphenyls
	Pine Valley Creek (Upper)	
		Phosphorus
		Turbidity
	Pogi Canyon Creek	
		DDT
	Rainbow Creek	
		Iron
		Sulfates
		Total Dissolved Solids
	Reidy Canyon Creek	
		Phosphorus
		Turbidity
	San Diego Bay	
		Polychlorinated biphenyls
	San Diego Bay Shoreline, Chula Vista Marina	
		Copper
	San Diego Bay Shoreline, at Americas Cup Harbor	
		Copper
	San Diego Bay Shoreline, at Coronado Cays	
		Copper
	San Diego Bay Shoreline, at Glorietta Bay	
		Copper
	San Diego Bay Shoreline, at Harbor Island (East Basin)	

Region	Water Segment	Pollutant
		Copper
	San Diego Bay Shoreline, at Harbor Island (West Basin)	
		Copper
	San Diego Bay Shoreline, at Marriot Marina	
		Copper
	San Juan Creek	
		DDE
	San Marcos Creek	
		DDE
		Phosphorus
		Sediment Bioassays -- Chronic Toxicity -- Freshwater
	San Marcos Lake	
		Ammonia as Nitrogen
		Nutrients
		Phosphorus
		Total Dissolved Solids
	San Vicente Reservoir	
		Chloride
		Color
		Manganese
		Sulfates
		Total Dissolved Solids
		pH (high)
	Sandia Creek	
		Iron
		Manganese
		Nitrogen
		Sulfates
	Santa Margarita River (Lower)	
		Mercury
	Soledad Canyon	
		Sediment Bioassays -- Chronic Toxicity -- Freshwater
	Sutherland Reservoir	
		Manganese
		pH (high)
	Sweetwater Reservoir	
		Oxygen, Dissolved
		Total Dissolved Solids
	Tecolote Creek	
		Phosphorus
		Turbidity
	Temecula Creek	
		Nitrogen
		Phosphorus
		Total Dissolved Solids
	Tijuana River Estuary	
		Turbidity

TABLE 7: DELETIONS FROM THE SECTION 303(D) LIST.

Region	Water Segment	Pollutant
1		
	Klamath River HU, Lost River HA, Clear Lake, Boles HSAs	
		Nutrients
		Temperature, water
	Klamath River HU, Salmon River HA	
		Nutrients
	Russian River HU, Lower Russian River HA, Guerneville HSA	
		Turbidity
	Russian River HU, Middle Russian River HA, Laguna de Santa Rosa	
		Nitrogen
		Phosphorus
2		
	Carquinez Strait	
		Diazinon
	Central Basin, San Francisco (part of SF Bay, Central)	
		Diazinon
	Islais Creek	
		Endosulfan sulfate
	Mission Creek	
		Chlorpyrifos
		Chromium (total)
		Copper
		Mirex
	Oakland Inner Harbor (Fruitvale Site, part of SF Bay, Central)	
		Diazinon
	Oakland Inner Harbor (Pacific Dry-dock Yard 1 Site, part of SF Bay, Central)	
		Chlorpyrifos
		Diazinon
		Mirex
		Tributylin TBT (Tributylstanne)
		ppDDE
	Sacramento San Joaquin Delta	
		Diazinon
	San Francisco Bay, Central	
		Diazinon
	San Francisco Bay, Lower	
		Diazinon
	San Francisco Bay, South	
		Diazinon
	San Leandro Bay (part of SF Bay, Central)	
		DDT
		Diazinon
		Selenium
	San Pablo Bay	
		Diazinon
	Suisun Bay	

Region	Water Segment	Pollutant
		Diazinon
3		
	Blosser Channel	
		Fecal Coliform
	Carpinteria Marsh (El Estero Marsh)	
		Sedimentation/Siltation
	Chumash Creek	
		Oxygen, Dissolved
	Espinosa Slough	
		Nutrients
	Goleta Slough/Estuary	
		Metals Sedimentation/Siltation
	Monterey Bay South (Coastline)	
		Metals Pesticides
	Morro Bay	
		Metals
	Salinas Reclamation Canal	
		Nitrogen, Nitrate
	Salinas River (lower, estuary to near Gonzales Rd crossing, watersheds 30910 and 30920)	
		Sedimentation/Siltation
	Salinas River (middle, near Gonzales Rd crossing to confluence with Nacimiento River)	
		Sedimentation/Siltation
	Salinas River Lagoon (North)	
		Sedimentation/Siltation
	Salinas River Refuge Lagoon (South)	
		Nutrients Pesticides Salinity/TDS/Chlorides
	San Antonio Creek (South Coast Watershed)	
		Sedimentation/Siltation
	San Luis Obispo Creek (Below W Marsh Street)	
		Priority Organics
	Waddell Creek, East Branch	
		Nutrients
	Watsonville Slough	
		Sedimentation/Siltation
4		
	Abalone Cove Beach	
		Beach Closures
	Arroyo Seco Reach 1 (LA River to West Holly Ave.)	
		Excess Algal Growth
	Arroyo Seco Reach 2 (Figueroa St. to Riverside Dr.)	
		Excess Algal Growth
	Ballona Creek	
		Cadmium ChemA Chlordane DDT Dieldrin Lead

Region	Water Segment	Pollutant
		PCBs (dioxin-like)
		Sediment Bioassays for Estuarine and Marine Water
		Selenium
		Silver
		Zinc
		pH
	Bluff Cove Beach	
		Beach Closures
	Burbank Western Channel	
		Cadmium
		Excess Algal Growth
		Foam/Flocs/Scum/Oil Slicks
		Taste and odor
	Calleguas Creek Reach 4 (was Revolon Slough Main Branch: Mugu Lagoon to Central Avenue on 1998 303d list)	
		Excess Algal Growth
	Calleguas Creek Reach 5 (was Beardsley Channel on 1998 303d list)	
		Excess Algal Growth
	Calleguas Creek Reach 9B (was part of Conejo Creek Reaches 1 and 2 on 1998 303d list)	
		Excess Algal Growth
	Calleguas Creek Reach 10 (Conejo Creek (Hill Canyon)-was part of Conejo Crk Reaches 2 & 3, and lower Conejo Crk/Arroyo Conejo N Fk on 1998 303d list)	
		Excess Algal Growth
	Calleguas Creek Reach 11 (Arroyo Santa Rosa, was part of Conejo Creek Reach 3 on 1998 303d list)	
		Excess Algal Growth
	Calleguas Creek Reach 13 (Conejo Creek South Fork, was Conejo Cr Reach 4 and part of Reach 3 on 1998 303d list)	
		Excess Algal Growth
	Carbon Beach	
		Beach Closures
	Coyote Creek	
		Abnormal Fish Histology (Lesions)
		Excess Algal Growth
		Selenium
		Zinc
	Dockweiler Beach	
		Beach Closures
	Dominguez Channel (lined portion above Vermont Ave)	
		Aldrin
		ChemA
		Chlordane
		DDT
		Dieldrin
	Dominguez Channel Estuary (unlined portion below Vermont Ave)	

Region	Water Segment	Pollutant
		Aldrin
		ChemA
		Chlordane
		Chromium (total)
		DDT
		Dieldrin
		Polycyclic Aromatic Hydrocarbons (PAHs) (Aquatic Ecosystems)
	Escondido Beach	
		Beach Closures
	Flat Rock Point Beach Area	
		Beach Closures
	Hermosa Beach	
		Beach Closures
	Inspiration Point Beach	
		Beach Closures
	La Costa Beach	
		Beach Closures
	Las Tunas Beach	
		Beach Closures
	Los Angeles Harbor - Consolidated Slip	
		Dieldrin
		Nickel
		Polycyclic Aromatic Hydrocarbons (PAHs) (Aquatic Ecosystems)
	Los Angeles River Estuary (Queensway Bay)	
		DDT
	Los Angeles River Reach 1 (Estuary to Carson Street)	
		Cadmium
	Los Angeles River Reach 2 (Carson to Figueroa Street)	
		Foam/Flocs/Scum/Oil Slicks
		Nutrients (Algae)
		Taste and odor
	Los Angeles/Long Beach Outer Harbor (inside breakwater)	
		Polychlorinated biphenyls
	Lunada Bay Beach	
		Beach Closures
	Malaga Cove Beach	
		Beach Closures
	Malibu Beach	
		Beach Closures
	Manhattan Beach	
		Beach Closures
	Nicholas Canyon Beach	
		Beach Closures
	Ormond Beach	
		Bacteria Indicators
	Point Dume Beach	
		Beach Closures
	Point Fermin Park Beach	
		Beach Closures
	Point Vicente Beach	
		Beach Closures

Region	Water Segment	Pollutant
	Portuguese Bend Beach	
		Beach Closures
	Puerco Beach	
		Beach Closures
	Resort Point Beach	
		Beach Closures
	Rocky Point Beach	
		Beach Closures
	Royal Palms Beach	
		Beach Closures
	San Buenaventura Beach	
		Bacteria Indicators
	San Gabriel River Estuary	
		Abnormal Fish Histology (Lesions)
	San Gabriel River Reach 1 (Estuary to Firestone)	
		Abnormal Fish Histology (Lesions) Excess Algal Growth Toxicity
	San Gabriel River Reach 2 (Firestone to Whittier Narrows Dam	
		Lead Zinc
	San Jose Creek Reach 1 (SG Confluence to Temple St.)	
		Excess Algal Growth
	San Jose Creek Reach 2 (Temple to I-10 at White Ave.)	
		Excess Algal Growth
	Sea Level Beach	
		Beach Closures
	Topanga Beach	
		Beach Closures
	Torrance Beach	
		Beach Closures
	Trancas Beach (Broad Beach)	
		Beach Closures
	Tujunga Wash (LA River to Hansen Dam)	
		Foam/Flocs/Scum/Oil Slicks Taste and odor
	Venice Beach	
		Beach Closures
	Ventura River Estuary	
		Fecal Coliform
	Verdugo Wash Reach 1 (LA River to Verdugo Rd.)	
		Excess Algal Growth
	Verdugo Wash Reach 2 (Above Verdugo Road)	
		Excess Algal Growth
	Whites Point Beach	
		Beach Closures
	Will Rogers Beach	
		Beach Closures
	Zuma Beach (Westward Beach)	
		Beach Closures
5		
	Feather River, Lower (Lake Oroville Dam to Confluence with Sacramento River)	

Region	Water Segment	Pollutant
		Diazinon
	Morrison Creek	
		Diazinon
	Sacramento River (Knights Landing to the Delta)	
		Diazinon
	Sutter Bypass	
		Diazinon
6		
	Aurora Canyon Creek	
		Habitat alterations
	Bear Creek (Placer County)	
		Sedimentation/Siltation
	Cinder Cone Springs	
		Nitrate as Nitrate (NO3) Salinity/TDS/Chlorides
	Clark Canyon Creek	
		Habitat alterations
	Cottonwood Creek (below LADWP diversion)	
		Flow alterations
	Crowley Lake	
		Nitrogen Phosphorus
	Goodale Creek	
		Sedimentation/Siltation
	Green Creek	
		Habitat alterations
	Green Valley Lake Creek	
		Priority Organics
	Honey Lake Wildfowl Management Ponds	
		Flow alterations
	Horseshoe Lake (San Bernardino County)	
		Sedimentation/Siltation
	Indian Creek (Alpine County)	
		Habitat alterations
	Lassen Creek	
		Flow alterations
	Lee Vining Creek	
		Flow alterations
	Mill Creek (Modoc County)	
		Sedimentation/Siltation
	Pine Creek (Lassen County)	
		Sedimentation/Siltation
	Rough Creek	
		Habitat alterations
	Skedaddle Creek	
		Coliform Bacteria
	Tinemaha Reservoir	
		Copper
	Topaz Lake	
		Sedimentation/Siltation
	Tuttle Creek	
		Habitat alterations
	West Walker River	
		Sedimentation/Siltation

Region	Water Segment	Pollutant
8		
	Elsinore, Lake	
		Sedimentation/Siltation
9		
	Chollas Creek	
		Cadmium
	Mission Bay Shoreline	
		Bacteria Indicators
	Pacific Ocean Shoreline, Miramar Reservoir HA	
		Bacteria Indicators
	Pacific Ocean Shoreline, Scripps HA	
		Bacteria Indicators
	San Diego Bay Shoreline, Chula Vista Marina	
		Bacteria Indicators

TABLE 8: AFFECTED AREA CHANGES IN THE SECTION 303(D) LIST.

Region	Water Segment
2	
	San Francisco Bay, Lower
	San Francisco Bay, South
3	
	Alamo Creek
	Los Osos Creek
	Orcutt Creek
	Pacific Ocean at Arroyo Burro Beach (Santa Barbara County)
	Pacific Ocean at Carpinteria State Beach (Carpinteria Creek mouth, Santa Barbara County)
	Pacific Ocean at Jalama Beach (Santa Barbara County)
	Rider Creek
	Salinas Reclamation Canal
4	
	Dominguez Channel (lined portion above Vermont Ave)
	Dominguez Channel Estuary (unlined portion below Vermont Ave)
	Los Angeles Harbor - Cabrillo Marina
	Los Angeles Harbor - Consolidated Slip
	Los Angeles Harbor - Fish Harbor
	Los Angeles Harbor - Inner Cabrillo Beach Area
	Los Angeles/Long Beach Inner Harbor
	Los Angeles/Long Beach Outer Harbor (inside breakwater)
	San Pedro Bay Near/Off Shore Zones
5	
	Delta Waterways (Stockton Ship Channel)
	Delta Waterways (eastern portion)
	Delta Waterways (western portion)
	Marsh Creek (Dunn Creek to Marsh Creek Reservoir)

Region	Water Segment
	Marsh Creek (Marsh Creek Reservoir to San Joaquin River)
	Salt Slough (upstream from confluence with San Joaquin River)
9	
	Chollas Creek
	Green Valley Creek
	Kit Carson Creek
	Mission Bay Shoreline
	Pacific Ocean Shoreline, San Diego HU
	San Diego River (Lower)
	Santa Margarita River (Upper)
	Tijuana River

TABLE 9: SCHEDULES FOR COMPLETION OF TOTAL MAXIMUM DAILY LOADS.

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
1	Albion River Sediment	Albion River, Mendocino Coast HU, Albion River HA	Sedimentation/Siltation	2004
	Big River Sediment	Big River, Mendocino Coast HU, Big River HA	Sedimentation/Siltation	2004
	Eel River South Fork Sediment	Eel River, South Fork, Eel River HU, South Fork HA	Sedimentation/Siltation	2004
	Eel River, Middle Fork Sediment	Eel River, Middle Fork, Eel River HU, North Fork HA	Sedimentation/Siltation	2004
	Eel River, North Fork Sediment	Eel River, North Fork, Eel River HU, North Fork HA	Sedimentation/Siltation	2004
	Gualala River Sediment	Gualala River, Mendocino Coast HU, Gualala River HA	Sedimentation/Siltation	2004
	Klamath River	Klamath River, Klamath River HU, Lower HA, Klamath Glen HSA	Nutrients	2006
			Organic Enrichment/Low Dissolved Oxygen	2006
			Temperature	2006
		Klamath River, Klamath River HU, Middle HA, Iron Gate Dam to Scott River	Nutrients	2006
			Organic Enrichment/Low Dissolved Oxygen	2006
			Temperature	2006
		Klamath River, Klamath River HU, Middle HA, Oregon to Iron Gate	Nutrients	2006
			Organic Enrichment/Low Dissolved Oxygen	2006
			Temperature	2006
		Klamath River, Klamath River HU, Middle HA, Scott River to Trinity River	Nutrients	2006
			Organic Enrichment/Low Dissolved Oxygen	2006

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
			Temperature	2006
	Laguna de Santa Rosa TMDL	Laguna de Santa Rosa, Russian River HU, Middle Russian River HA	Low Dissolved Oxygen	2008
			Temperature	2008
	Lower Lost River	Klamath River, Klamath River HU, Lost River HA, Tule Lake and Mt Dome HSAs	Nutrients	2006
			Temperature	2006
		Tule Lake and Lower Klamath Lake National Wildlife Refuge (Klamath River HU)	pH (high)	2006
	Mattole Sediment	Mattole River, Cape Mendocino HU, Mattole River HA	Sedimentation/Siltation	2004
	Middle Fork Eel River	Eel River, Middle Fork, Eel River HU, Middle Fork HA	Sedimentation/Siltation	2007
	Navarro River Sediment	Navarro River Delta, Mendocino Coast HU, Navarro River HA	Sedimentation/Siltation	2004
		Navarro River, Mendocino Coast HU	Sedimentation/Siltation	2004
	Noyo River Sediment	Noyo River, Mendocino Coast HU, Noyo River HA	Sedimentation/Siltation	2004
	Redwood Creek	Redwood Creek, Redwood Creek HU	Sedimentation/Siltation	2004
	Russian River Pathogens	Russian River, Russian River HU, Lower Russian River HA, Guerneville HSA	Pathogens	2008
	Salmon River	Klamath River, Klamath River HU, Salmon River HA	Temperature	2005
	Santa Rosa Creek Pathogens	Santa Rosa Creek, Russian River HU, Middle Russian River HA	Pathogens	2008
	Scott River	Scott River, Klamath River HU, Scott River HA	Sedimentation/Siltation	2005
			Temperature	2005
	Shasta River	Shasta River, Klamath River HU, Shasta River HA	Organic Enrichment/Low Dissolved Oxygen	2006
			Temperature	2006
	Ten Mile Sediment	Ten Mile River, Mendocino Coast HU,	Sedimentation/Siltation	2004

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
		Rockport HA, Ten Mile River HSA		
	Trinity River Sediment	Trinity River, East Fork, Trinity River HU, Upper HA	Sedimentation/Siltation	2004
		Trinity River, South Fork, Trinity River HU, South Fork HA	Sedimentation/Siltation	2004
		Trinity River, Trinity River HU, Lower Trinity HA	Sedimentation/Siltation	2004
		Trinity River, Trinity River HU, Middle HA	Sedimentation/Siltation	2004
		Trinity River, Trinity River HU, Upper HA	Sedimentation/Siltation	2004
	Upper Lost River	Klamath River, Klamath River HU, Lost River HA, Clear Lake, Boles HSAs	Nutrients	2004
			Temperature	2004
	Van Duzen River Sediment	Van Duzen River, Eel River HU, Van Duzen River HA	Sedimentation/Siltation	2004
2	Guadalupe River Watershed Mercury	Alamitos Creek	Mercury	2006
		Calero Reservoir	Mercury	2006
		Guadalupe Creek	Mercury	2006
		Guadalupe Reservoir	Mercury	2006
		Guadalupe River	Mercury	2006
	Lagunitas Creek Sediment	Lagunitas Creek	Sedimentation/Siltation	2009
	Napa River Nutrients	Napa River	Nutrients	2007
	Napa River Pathogens	Napa River	Pathogens	2006
	Napa River Sediment	Napa River	Sedimentation/Siltation	2006
	San Francisco Bay Legacy Pesticides	Carquinez Strait	Chlordane	2008
			DDT	2008
			Dieldrin	2008
		Castro Cove, Richmond (San Pablo Basin)	Dieldrin (sediment)	2008
		Central Basin, San Francisco (part of SF Bay, Central)	Chlordane	2008
			DDT	2008
			Dieldrin	2008
		Islais Creek	Chlordane (sediment)	2008
			Dieldrin (sediment)	2008
		Mission Creek	Chlordane (sediment)	2008
			Dieldrin (sediment)	2008

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
		Oakland Inner Harbor (Fruitvale Site, part of SF Bay, Central)	Chlordane	2008
			Chlordane (sediment)	2008
			DDT	2008
			Dieldrin	2008
		Oakland Inner Harbor (Pacific Dry-dock Yard 1 Site, part of SF Bay, Central)	Chlordane	2008
			Chlordane (sediment)	2008
			DDT	2008
			Dieldrin	2008
			Dieldrin (sediment)	2008
		Richardson Bay	Chlordane	2008
			DDT	2008
			Dieldrin	2008
		Sacramento San Joaquin Delta	Chlordane	2008
			DDT	2008
			Dieldrin	2008
		San Francisco Bay, Central	Chlordane	2008
			DDT	2008
			Dieldrin	2008
		San Francisco Bay, Lower	Chlordane	2008
			DDT	2008
			Dieldrin	2008
		San Francisco Bay, South	Chlordane	2008
			DDT	2008
			Dieldrin	2008
		San Leandro Bay (part of SF Bay, Central)	Chlordane	2008
			Dieldrin	2008
		San Pablo Bay	Chlordane	2008
			DDT	2008
			Dieldrin	2008
		Suisun Bay	Chlordane	2008
			DDT	2008
			Dieldrin	2008
	San Francisco Bay Mercury	Carquinez Strait	Mercury	2006
		Castro Cove, Richmond (San Pablo Basin)	Mercury (sediment)	2006
		Central Basin, San Francisco (part of SF Bay,	Mercury	2006

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
		Central)		
			Mercury (sediment)	2006
		Oakland Inner Harbor (Fruitvale Site, part of SF Bay, Central)	Mercury	2006
		Oakland Inner Harbor (Pacific Dry-dock Yard 1 Site, part of SF Bay, Central)	Mercury	2006
			Mercury (sediment)	2006
		Richardson Bay	Mercury	2006
		Sacramento San Joaquin Delta	Mercury	2006
		San Francisco Bay, Central	Mercury	2006
		San Francisco Bay, Lower	Mercury	2006
		San Francisco Bay, South	Mercury	2006
		San Leandro Bay (part of SF Bay, Central)	Mercury	2006
			Mercury (sediment)	2006
		San Pablo Bay	Mercury	2006
		Suisun Bay	Mercury	2006
	San Francisco Bay PCBs	Carquinez Strait	PCBs	2006
		Central Basin, San Francisco (part of SF Bay, Central)	PCBs	2006
		Islais Creek	PCBs (sediment)	2006
		Mission Creek	PCBs (sediment)	2006
		Oakland Inner Harbor (Fruitvale Site, part of SF Bay, Central)	PCBs	2006
			PCBs (sediment)	2006
		Oakland Inner Harbor (Pacific Dry-dock Yard 1 Site, part of SF Bay, Central)	PCBs	2006
			PCBs (sediment)	2006
		Richardson Bay	PCBs	2006
		Sacramento San Joaquin Delta	PCBs	2006
		San Francisco Bay, Central	PCBs	2006
		San Francisco Bay, Lower	PCBs	2006
		San Francisco Bay, South	PCBs	2006
		San Pablo Bay	PCBs	2006
		Suisun Bay	PCBs	2006
	San Francisco Bay Urban	Alameda Creek	Diazinon	2005

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
	Creeks Diazinon			
		Arroyo Corte Madera Del Presidio	Diazinon	2005
		Arroyo De La Laguna	Diazinon	2005
		Arroyo Del Valle	Diazinon	2005
		Arroyo Las Positas	Diazinon	2005
		Arroyo Mocho	Diazinon	2005
		Calabazas Creek	Diazinon	2005
		Corte Madera Creek	Diazinon	2005
		Coyote Creek (Marin County)	Diazinon	2005
		Coyote Creek (Santa Clara Co.)	Diazinon	2005
		Gallinas Creek	Diazinon	2005
		Guadalupe River	Diazinon	2005
		Laurel Creek (Solano Co)	Diazinon	2005
		Ledgewood Creek	Diazinon	2005
		Los Gatos Creek (R2)	Diazinon	2005
		Matadero Creek	Diazinon	2005
		Miller Creek	Diazinon	2005
		Mt. Diablo Creek	Diazinon	2005
		Novato Creek	Diazinon	2005
		Permanente Creek	Diazinon	2005
		Petaluma River	Diazinon	2005
		Pine Creek (Contra Costa Co)	Diazinon	2005
		Pinole Creek	Diazinon	2005
		Rodeo Creek	Diazinon	2005
		San Antonio Creek (Marin/Sonoma Co)	Diazinon	2005
		San Felipe Creek	Diazinon	2005
		San Francisquito Creek	Diazinon	2005
		San Leandro Creek, Lower	Diazinon	2005
		San Lorenzo Creek	Diazinon	2005
		San Mateo Creek	Diazinon	2005
		San Pablo Creek	Diazinon	2005
		San Rafael Creek	Diazinon	2005
		Saratoga Creek	Diazinon	2005
		Stevens Creek	Diazinon	2005
		Suisun Slough	Diazinon	2005
		Walnut Creek	Diazinon	2005
		Wildcat Creek	Diazinon	2005
	San Francisquito Creek Watershed	San Francisquito Creek	Sedimentation/Siltation	2007
	Sonoma Creek Nutrients	Sonoma Creek	Nutrients	2007

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
	Sonoma Creek Pathogens	Sonoma Creek	Pathogens	2006
	Sonoma Creek Sediment	Sonoma Creek	Sedimentation/Siltation	2008
	Tomales Bay Mercury	Tomales Bay	Mercury	2007
	Tomales Bay Pathogens	Lagunitas Creek	Pathogens	2005
		Tomales Bay	Pathogens	2005
	Tomales Bay Sediment	Tomales Bay	Sedimentation/Siltation	2008
	Walker Creek Mercury	Walker Creek	Mercury	2006
	Walker Creek Sediment	Walker Creek	Sedimentation/Siltation	2009
3	Aptos/Valencia Creeks Pathogen TMDL	Aptos Creek	Pathogens	2006
		Valencia Creek	Pathogens	2006
	Aptos/Valencia Sediment	Aptos Creek	Sedimentation/Siltation	2006
				2006
		Valencia Creek	Sedimentation/Siltation	2006
				2006
	Carbonera Creek - Pathogen - Santa Cruz Co.	Carbonera Creek	Pathogens	2006
	Carpinteria Marsh and Goleta Slough, multiple pollutant listing	Carpinteria Marsh (El Estero Marsh)	Nutrients	2015
			Organic Enrichment/Low Dissolved Oxygen	2015
			Priority Organics	2015
		Goleta Slough/Estuary		
			Pathogens	2015
			Priority Organics	2015
	Chorro Creek Nutrients	Chorro Creek	Nutrients	2005
	Clear Creek -Hernandez Reservoir - Mercury	Clear Creek (San Benito County)	Mercury	2004
		Hernandez Reservoir	Mercury	2004
	Corralitos Creek Pathogens	Corralitos Creek	Fecal Coliform	2006
	Dairy Creek Dissolved Oxygen	Dairy Creek	Low Dissolved Oxygen	2015
	Los Osos Creek Dissolved Oxygen	Los Osos Creek	Low Dissolved Oxygen	2015
	Los Osos Creek Nutrients	Los Osos Creek	Nutrients	2015
	Monterey Harbor -Lead			
		Monterey Harbor	Metals	2007
	Morro Bay Pathogens TMDL	Chorro Creek	Fecal Coliform	2002
		Chumash Creek	Fecal Coliform	2002
		Dairy Creek	Fecal Coliform	2002
		Los Osos Creek	Fecal Coliform	2002
		Morro Bay	Pathogens	2002
		Pennington Creek	Fecal Coliform	2002
		San Bernardo Creek	Fecal Coliform	2002

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
		San Luisito Creek	Fecal Coliform	2002
		Walters Creek	Fecal Coliform	2002
		Warden Creek	Fecal Coliform	2002
	Morro Bay Sediment TMDL	Chorro Creek	Sedimentation/Siltation	2003
		Los Osos Creek	Sedimentation/Siltation	2003
		Morro Bay	Sedimentation/Siltation	2003
	Multiple Listings Llagas Creek (Pajaro R. Fecal coliform)	Llagas Creek	Chloride	2011
			Low Dissolved Oxygen	2011
			Sodium	2011
			Total Dissolved Solids	2011
			pH	2011
	Pajaro River Fecal Coliform TMDL	Llagas Creek	Fecal Coliform	2011
		Pajaro River	Fecal Coliform	2011
		San Benito River	Fecal Coliform	2011
	Pajaro River Nutrients (including Llagas Creek)	Llagas Creek	Nutrients	2005
		Pajaro River	Nutrients	2005
	Pajaro River Siltation/Sedimentation (including San Benito R., Llagas Cr., Rider Gulch Cr.)	Llagas Creek	Sedimentation/Siltation	2005
		Pajaro River	Sedimentation/Siltation	2005
		Rider Gulch Creek	Sedimentation/Siltation	2005
		San Benito River	Sedimentation/Siltation	2005
	Salinas River - fecal coliform	Alisal Creek (Salinas)	Fecal Coliform	2007
		Atascadero Creek (San Luis Obispo County)	Fecal Coliform	2007
		Elkhorn Slough	Pathogens	2007
		Gabilan Creek	Fecal Coliform	2007
		Old Salinas River Estuary	Fecal Coliform	2007
		Salinas Reclamation Canal	Fecal Coliform	2007
		Salinas River (lower, estuary to near Gonzales Rd crossing, watersheds 30910 and 30920)	Fecal Coliform	2007
		San Lorenzo Creek	Fecal Coliform	2007
		Tembladero Slough	Fecal Coliform	2007
	Salinas River Nutrient TMDL	Alisal Creek (Salinas)	Nitrate	2006
		Old Salinas River Estuary	Nutrients	2006
		Salinas River (lower, estuary to near Gonzales Rd crossing, watersheds 30910 and 30920)	Nutrients	2006
		Salinas River Lagoon	Nutrients	2006

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
		(North)		
		Tembladero Slough	Nutrients	2006
	Salinas River, Salinas River Delta and Elkhorn Slough Pesticides	Blanco Drain	Pesticides	2006
		Elkhorn Slough	Pesticides	2006
		Espinosa Slough	Pesticides	2006
			Priority Organics	2006
		Moro Cojo Slough	Pesticides	2006
		Moss Landing Harbor	Pesticides	2006
		Old Salinas River Estuary	Pesticides	2006
		Salinas Reclamation Canal	Pesticides	2006
			Priority Organics	2006
		Salinas River (lower, estuary to near Gonzales Rd crossing, watersheds 30910 and 30920)	Pesticides	2006
		Salinas River (middle, near Gonzales Rd crossing to confluence with Nacimiento River)	Pesticides	2006
		Salinas River Lagoon (North)	Pesticides	2006
		Tembladero Slough	Pesticides	2006
	San Lorenzo River Estuary Pathogen TMDL	San Lorenzo River Lagoon	Pathogens	2006
	San Lorenzo River and Lompico Creek Bacteria TMDLs	Lompico Creek	Pathogens	2006
		San Lorenzo River	Pathogens	2006
	San Luis Obispo Creek Nutrients	San Luis Obispo Creek (Below W Marsh Street)	Nutrients	2004
				2005
	San Luis Obispo Creek Pathogen TMDL	San Luis Obispo Creek (Below W Marsh Street)	Pathogens	2004
	Santa Cruz County Pathogens	Aptos Creek	Pathogens	2007
		Carbonera Creek	Pathogens	2007
		Lompico Creek	Pathogens	2007
		San Lorenzo River	Pathogens	2007
		San Lorenzo River Lagoon	Pathogens	2007
		Schwan Lake	Pathogens	2007
		Soquel Lagoon	Pathogens	2007
		Valencia Creek	Pathogens	2007
	Santa Maria and Oso Flaco Fecal Coliform	Alamo Creek	Fecal Coliform	2008
		Blosser Channel	Fecal Coliform	2008

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
		Bradley Canyon Creek	Fecal Coliform	2008
		Bradley Channel	Fecal Coliform	2008
		Nipomo Creek	Fecal Coliform	2008
		Orcutt Solomon Creek	Fecal Coliform	2008
		Oso Flaco Creek	Fecal Coliform	2008
		Santa Maria River	Fecal Coliform	2008
	Santa Maria and Osos Flaco Nitrate	Main Street Canal	Nitrate	2015
		Orcutt Solomon Creek	Nitrate	2015
		Oso Flaco Creek	Nitrate	2015
		Oso Flaco Lake	Nitrate	2015
		Santa Maria River	Nitrate	2015
	Soquel Lagoon Pathogen TMDL	Soquel Lagoon	Pathogens	2006
	Soquel Lagoon Sediment TMDL	Soquel Lagoon	Sedimentation/Siltation	2011
	Tequisquita Slough Fecal Coliform TMDL	Tequisquita Slough	Fecal Coliform	2011
	Warden Creek Dissolved Oxygen TMDL	Warden Creek	Low Dissolved Oxygen	2015
	Watsonville Slough-Pesticides	Watsonville Slough	Pesticides	2007
	Watsonville Sloughs Pathogen	Watsonville Slough	Pathogens	2006
4	Ballona Creek Coliform (49)	Ballona Creek	Enteric Viruses	2006
			High Coliform Count	2006
		Ballona Creek Estuary	High Coliform Count	2006
			Shellfish Harvesting Advisory	2006
	Ballona Creek Metals (AU #57)	Ballona Creek	Cadmium (sediment)	2005
			Copper, Dissolved	2005
			Lead, Dissolved	2005
			Selenium, Total	2005
			Silver (sediment)	2005
			Toxicity	2005
			Zinc, Dissolved	2005
		Ballona Creek Estuary	Lead (sediment)	2005
			Zinc (sediment)	2005
	Ballona Creek Toxics	Ballona Creek Estuary	Chlordane (tissue & sediment)	2005
			DDT (sediment)	2005
			PAHs (sediment)	2005
			PCBs (tissue & sediment)	2005
			Sediment Toxicity	2005
	Calleguas Creek Chloride (3)	Calleguas Creek Reach 3 (Potrero Road upstream to	Chloride	2002

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
		confluence with Conejo Creek on 1998 303d list)		
		Calleguas Creek Reach 6 (was Arroyo Las Posas Reaches 1 and 2 on 1998 303d list)	Chloride	2002
		Calleguas Creek Reach 7 (was Arroyo Simi Reaches 1 and 2 on 1998 303d list)	Chloride	2002
		Calleguas Creek Reach 8 (was Tapo Canyon Reach 1)	Chloride	2002
		Calleguas Creek Reach 9B (was part of Conejo Creek Reaches 1 and 2 on 1998 303d list)	Chloride	2002
		Calleguas Creek Reach 13 (Conejo Creek South Fork, was Conejo Cr Reach 4 and part of Reach 3 on 1998 303d list)	Chloride	2002
	Calleguas Creek Coliform (98)	Calleguas Creek Reach 2 (estuary to Potrero Rd- was Calleguas Creek Reaches 1 and 2 on 1998 303d list)	Fecal Coliform	2006
		Calleguas Creek Reach 4 (was Revolon Slough Main Branch: Mugu Lagoon to Central Avenue on 1998 303d list)	Fecal Coliform	2006
		Calleguas Creek Reach 6 (was Arroyo Las Posas Reaches 1 and 2 on 1998 303d list)	Fecal Coliform	2006
		Calleguas Creek Reach 7 (was Arroyo Simi Reaches 1 and 2 on 1998 303d list)	Fecal Coliform	2006
		Calleguas Creek Reach 9A (was lower part of Conejo Creek Reach 1 on 1998 303d list)	Fecal Coliform	2006
		Calleguas Creek Reach 9B (was part of Conejo Creek Reaches 1 and 2 on 1998 303d list)	Fecal Coliform	2006
		Calleguas Creek Reach 10 (Conejo Creek (Hill	Fecal Coliform	2006

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
		Canyon)-was part of Conejo Crk Reaches 2 & 3, and lower Conejo Crk/Arroyo Conejo N Fk on 1998 303d list)		
		Calleguas Creek Reach 11 (Arroyo Santa Rosa, was part of Conejo Creek Reach 3 on 1998 303d list)	Fecal Coliform	2006
	Calleguas Creek Historic Pesticides (AU #5)	Calleguas Creek Reach 1 (was Mugu Lagoon on 1998 303(d) list)	Chlordane (tissue)	2005
			DDT (tissue & sediment)	2005
			Endosulfan (tissue)	2005
			Sediment Toxicity	2005
		Calleguas Creek Reach 2 (estuary to Potrero Rd-was Calleguas Creek Reaches 1 and 2 on 1998 303d list)	ChemA (tissue)	2005
			Chlordane (tissue)	2005
			DDT	2005
			Endosulfan (tissue)	2005
			Sediment Toxicity	2005
			Sedimentation/Siltation	2005
			Toxaphene (tissue & sediment)	2005
		Calleguas Creek Reach 3 (Potrero Road upstream to confluence with Conejo Creek on 1998 303d list)	Sedimentation/Siltation	2005
		Calleguas Creek Reach 4 (was Revolon Slough Main Branch: Mugu Lagoon to Central Avenue on 1998 303d list)	ChemA (tissue)	2005
			Chlordane (tissue & sediment)	2005
			DDT (tissue & sediment)	2005
			Dieldrin (tissue)	2005
			Endosulfan (tissue & sediment)	2005
			Sedimentation/Siltation	2005
			Toxaphene (tissue & sediment)	2005
		Calleguas Creek Reach 5 (was Beardsley Channel on 1998 303d list)	ChemA (tissue)	2005

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
			Chlordane (tissue & sediment)	2005
			DDT (tissue & sediment)	2005
			Dacthal (sediment)	2005
			Dieldrin (tissue)	2005
			Endosulfan (tissue & sediment)	2005
			Sedimentation/Siltation	2005
			Toxaphene (tissue & sediment)	2005
		Calleguas Creek Reach 6 (was Arroyo Las Posas Reaches 1 and 2 on 1998 303d list)	DDT (sediment)	2005
			Sedimentation/Siltation	2005
		Calleguas Creek Reach 7 (was Arroyo Simi Reaches 1 and 2 on 1998 303d list)	Sedimentation/Siltation	2005
		Calleguas Creek Reach 8 (was Tapo Canyon Reach 1)	Sedimentation/Siltation	2005
		Calleguas Creek Reach 9A (was lower part of Conejo Creek Reach 1 on 1998 303d list)	ChemA (tissue)	2005
			Chlordane (tissue)	2005
			DDT (tissue)	2005
			Dieldrin (tissue)	2005
			Endosulfan (tissue)	2005
			Hexachlorocyclohexane/ HCH (tissue)	2005
			Toxaphene (tissue & sediment)	2005
		Calleguas Creek Reach 9B (was part of Conejo Creek Reaches 1 and 2 on 1998 303d list)	ChemA (tissue)	2005
			DDT (tissue)	2005
			Endosulfan (tissue)	2005
			Toxaphene (tissue & sediment)	2005
		Calleguas Creek Reach 10 (Conejo Creek (Hill Canyon)-was part of Conejo Crk Reaches 2 & 3, and lower Conejo Crk/Arroyo Conejo N Fk	ChemA (tissue)	2005

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
		on 1998 303d list)		
			DDT (tissue)	2005
			Endosulfan (tissue)	2005
			Toxaphene (tissue & sediment)	2005
		Calleguas Creek Reach 11 (Arroyo Santa Rosa, was part of Conejo Creek Reach 3 on 1998 303d list)	ChemA (tissue)	2005
			DDT (tissue)	2005
			Endosulfan (tissue)	2005
			Sedimentation/Siltation	2005
			Toxaphene (tissue & sediment)	2005
		Calleguas Creek Reach 12 (was Conejo Creek/Arroyo Conejo North Fork on 1998 303d list)	Chlordane (tissue)	2005
			DDT (tissue)	2005
		Calleguas Creek Reach 13 (Conejo Creek South Fork, was Conejo Cr Reach 4 and part of Reach 3 on 1998 303d list)	ChemA (tissue)	2005
			DDT (tissue)	2005
			Endosulfan (tissue)	2005
			Toxaphene (tissue & sediment)	2005
		Duck Pond Agricultural Drains/Mugu Drain/Oxnard Drain No 2	ChemA (tissue)	2005
			Chlordane (tissue)	2005
			DDT (tissue & sediment)	2005
			Sediment Toxicity	2005
			Toxaphene (tissue)	2005
	Calleguas Creek Metals (6)	Calleguas Creek Reach 1 (was Mugu Lagoon on 1998 303(d) list)	Copper	2006
			Mercury	2006
			Nickel	2006
			Zinc	2006
		Calleguas Creek Reach 2 (estuary to Potrero Rd-was Calleguas Creek Reaches 1 and 2 on 1998 303d list)	Copper, Dissolved	2006
		Calleguas Creek Reach 4	Selenium	2006

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
		(was Revolon Slough Main Branch: Mugu Lagoon to Central Avenue on 1998 303d list)		
	Calleguas Creek Nitrogen	Calleguas Creek Reach 1 (was Mugu Lagoon on 1998 303(d) list)	Nitrogen	2002
		Calleguas Creek Reach 2 (estuary to Potrero Rd-was Calleguas Creek Reaches 1 and 2 on 1998 303d list)	Ammonia	2002
			Nitrogen	2002
		Calleguas Creek Reach 3 (Potrero Road upstream to confluence with Conejo Creek on 1998 303d list)	Nitrate and Nitrite	2002
		Calleguas Creek Reach 4 (was Revolon Slough Main Branch: Mugu Lagoon to Central Avenue on 1998 303d list)	Algae	2002
			Nitrate as Nitrate (NO3)	2002
			Nitrogen	2002
		Calleguas Creek Reach 5 (was Beardsley Channel on 1998 303d list)	Algae	2002
			Nitrogen	2002
		Calleguas Creek Reach 6 (was Arroyo Las Posas Reaches 1 and 2 on 1998 303d list)	Ammonia	2002
			Nitrate and Nitrite	2002
			Nitrate as Nitrate (NO3)	2002
		Calleguas Creek Reach 7 (was Arroyo Simi Reaches 1 and 2 on 1998 303d list)	Ammonia	2002
		Calleguas Creek Reach 9A (was lower part of Conejo Creek Reach 1 on 1998 303d list)	Algae	2002
			Nitrate as Nitrate (NO3)	2002
			Nitrate as Nitrogen	2002
			Nitrite as Nitrogen	2002
		Calleguas Creek Reach 9B (was part of Conejo Creek Reaches 1 and 2 on 1998 303d list)	Algae	2002

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
			Ammonia	2002
		Calleguas Creek Reach 10 (Conejo Creek (Hill Canyon)-was part of Conejo Crk Reaches 2 & 3, and lower Conejo Crk/Arroyo Conejo N Fk on 1998 303d list)	Algae	2002
			Ammonia	2002
			Nitrite as Nitrogen	2002
		Calleguas Creek Reach 11 (Arroyo Santa Rosa, was part of Conejo Creek Reach 3 on 1998 303d list)	Algae	2002
			Ammonia	2002
		Calleguas Creek Reach 12 (was Conejo Creek/Arroyo Conejo North Fork on 1998 303d list)	Ammonia	2002
		Calleguas Creek Reach 13 (Conejo Creek South Fork, was Conejo Cr Reach 4 and part of Reach 3 on 1998 303d list)	Algae	2002
			Ammonia	2002
		Duck Pond Agricultural Drains/Mugu Drain/Oxnard Drain No 2	Nitrogen	2002
		Fox Barranca (tributary to Calleguas Creek Reach 6)	Nitrate and Nitrite	2002
	Calleguas Creek PCBs (7)	Calleguas Creek Reach 1 (was Mugu Lagoon on 1998 303(d) list)	PCBs (tissue)	2005
		Calleguas Creek Reach 2 (estuary to Potrero Rd-was Calleguas Creek Reaches 1 and 2 on 1998 303d list)	PCBs (tissue)	2005
		Calleguas Creek Reach 4 (was Revolon Slough Main Branch: Mugu Lagoon to Central Avenue on 1998 303d list)	PCBs (tissue)	2005
		Calleguas Creek Reach 5 (was Beardsley Channel on 1998 303d list)	PCBs (tissue)	2005
		Calleguas Creek Reach 9A (was lower part of Conejo Creek Reach 1 on	PCBs (tissue)	2005

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
		1998 303d list)		
	Calleguas Creek Toxicity (2)	Calleguas Creek Reach 4 (was Revolon Slough Main Branch: Mugu Lagoon to Central Avenue on 1998 303d list)	Chlorpyrifos (tissue)	2005
			Toxicity	2005
		Calleguas Creek Reach 5 (was Beardsley Channel on 1998 303d list)	Chlorpyrifos (tissue)	2005
			Toxicity	2005
		Calleguas Creek Reach 7 (was Arroyo Simi Reaches 1 and 2 on 1998 303d list)	Organophosphorus Pesticides	2005
		Calleguas Creek Reach 9B (was part of Conejo Creek Reaches 1 and 2 on 1998 303d list)	Toxicity	2005
		Calleguas Creek Reach 10 (Conejo Creek (Hill Canyon)-was part of Conejo Crk Reaches 2 & 3, and lower Conejo Crk/Arroyo Conejo N Fk on 1998 303d list)	Toxicity	2005
		Calleguas Creek Reach 11 (Arroyo Santa Rosa, was part of Conejo Creek Reach 3 on 1998 303d list)	Toxicity	2005
		Calleguas Creek Reach 13 (Conejo Creek South Fork, was Conejo Cr Reach 4 and part of Reach 3 on 1998 303d list)	Toxicity	2005
		Duck Pond Agricultural Drains/Mugu Drain/Oxnard Drain No 2	Toxicity	2005
	Dominguez Channel	Dominguez Channel (Estuary to Vermont)	High Coliform Count	2007
		Dominguez Channel (above Vermont)	High Coliform Count	2007
		Torrance Carson Channel	High Coliform Count	2007
		Wilmington Drain	High Coliform Count	2007
	Los Angeles Harbor Beaches - Beach Closures	Cabrillo Beach (Inner) LA Harbor Area	Beach Closures (Coliform)	2004
		Los Angeles Harbor Main Channel	Beach Closures	2004
	Los Angeles River	Aliso Canyon Wash	Selenium	2005

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
	Metals/Toxics			
		Burbank Western Channel	Cadmium	2005
		Compton Creek	Copper	2005
			Lead	2005
		Dry Canyon Creek	Selenium, Total	2005
		Los Angeles River Reach 1 (Estuary to Carson Street)	Aluminum, Total	2005
			Cadmium, Dissolved	2005
			Copper, Dissolved	2005
			Lead	2005
			Zinc, Dissolved	2005
		Los Angeles River Reach 2 (Carson to Figueroa Street)	Lead	2005
		Los Angeles River Reach 4 (Sepulveda Dr. to Sepulveda Dam)	Lead	2005
		McCoy Canyon Creek	Selenium, Total	2005
		Monrovia Canyon Creek	Lead	2005
		Rio Hondo Reach 1 (Confl. LA River to Snt Ana Fwy)	Copper	2005
			Lead	2005
			Zinc	2005
		Tujunga Wash (LA River to Hansen Dam)	Copper	2005
	Los Angeles River Nitrogen	Arroyo Seco Reach 1 (LA River to West Holly Ave.)	Algae	2003
		Arroyo Seco Reach 2 (Figueroa St. to Riverside Dr.)	Algae	2003
		Burbank Western Channel	Algae	2003
			Ammonia	2003
			Odors	2003
			Scum/Foam-unnatural	2003
		Compton Creek	pH	2003
		Los Angeles River Reach 1 (Estuary to Carson Street)	Ammonia	2003
			Nutrients (Algae)	2003
			Scum/Foam-unnatural	2003
			pH	2003
		Los Angeles River Reach 2 (Carson to Figueroa Street)	Ammonia	2003

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
			Nutrients (Algae)	2003
			Odors	2003
			Scum/Foam-unnatural	2003
		Los Angeles River Reach 3 (Figueroa St. to Riverside Dr.)	Ammonia	2003
			Nutrients (Algae)	2003
			Odors	2003
			Scum/Foam-unnatural	2003
		Los Angeles River Reach 4 (Sepulveda Dr. to Sepulveda Dam)	Ammonia	2003
			Nutrients (Algae)	2003
			Odors	2003
			Scum/Foam-unnatural	2003
		Los Angeles River Reach 5 (within Sepulveda Basin)	Ammonia	2003
			Nutrients (Algae)	2003
			Odors	2003
			Scum/Foam-unnatural	2003
		Rio Hondo Reach 1 (Confl. LA River to Snt Ana Fwy)	pH	2003
		Tujunga Wash (LA River to Hansen Dam)	Ammonia	2003
			Odors	2003
			Scum/Foam-unnatural	2003
		Verdugo Wash Reach 1 (LA River to Verdugo Rd.)	Algae	2003
		Verdugo Wash Reach 2 (Above Verdugo Road)	Algae	2003
	Los Angeles River Pathogens	Arroyo Seco Reach 1 (LA River to West Holly Ave.)	High Coliform Count	2009
		Arroyo Seco Reach 2 (Figueroa St. to Riverside Dr.)	High Coliform Count	2009
		Bell Creek	High Coliform Count	2009
		Compton Creek	High Coliform Count	2009
		Dry Canyon Creek	Fecal Coliform	2009
		Los Angeles River Reach 1 (Estuary to Carson Street)	High Coliform Count	2009
		Los Angeles River Reach 2 (Carson to Figueroa Street)	High Coliform Count	2009

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
		Los Angeles River Reach 4 (Sepulveda Dr. to Sepulveda Dam)	High Coliform Count	2009
		Los Angeles River Reach 6 (Above Sepulveda Flood Control Basin)	High Coliform Count	2009
		McCoy Canyon Creek	Fecal Coliform	2009
		Rio Hondo Reach 1 (Confl. LA River to Snt Ana Fwy)	High Coliform Count	2009
		Rio Hondo Reach 2 (At Spreading Grounds)	High Coliform Count	2009
		Tujunga Wash (LA River to Hansen Dam)	High Coliform Count	2009
		Verdugo Wash Reach 1 (LA River to Verdugo Rd.)	High Coliform Count	2009
		Verdugo Wash Reach 2 (Above Verdugo Road)	High Coliform Count	2009
	Los Angeles River Trash (12)	Arroyo Seco Reach 1 (LA River to West Holly Ave.)	Trash	2002
		Arroyo Seco Reach 2 (Figueroa St. to Riverside Dr.)	Trash	2002
		Burbank Western Channel	Trash	2002
		Rio Hondo Reach 1 (Confl. LA River to Snt Ana Fwy)	Trash	2002
		Tujunga Wash (LA River to Hansen Dam)	Trash	2002
		Verdugo Wash Reach 1 (LA River to Verdugo Rd.)	Trash	2002
		Verdugo Wash Reach 2 (Above Verdugo Road)	Trash	2002
	Malibu Creek Nutrients	Lake Calabasas	Ammonia	2006
		Lake Lindero	Algae	2006
			Eutrophic	2006
			Odors	2006
		Lake Sherwood	Algae	2006
			Ammonia	2006
			Eutrophic	2006
			Organic Enrichment/Low Dissolved Oxygen	2006
		Las Virgenes Creek	Nutrients (Algae)	2006
			Organic Enrichment/Low	2006

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
			Dissolved Oxygen	
			Scum/Foam-unnatural	2006
		Lindero Creek Reach 1	Algae	2006
			Scum/Foam-unnatural	2006
		Lindero Creek Reach 2 (Above Lake)	Algae	2006
			Scum/Foam-unnatural	2006
		Malibou Lake	Algae	2006
			Eutrophic	2006
			Organic Enrichment/Low Dissolved Oxygen	2006
		Malibu Creek	Nutrients (Algae)	2006
			Scum/Foam-unnatural	2006
		Malibu Lagoon	Eutrophic	2006
			pH	2006
		Medea Creek Reach 1 (Lake to Confl. with Lindero)	Algae	2006
		Medea Creek Reach 2 (Abv Confl. with Lindero)	Algae	2006
		Westlake Lake	Algae	2006
			Ammonia	2006
			Eutrophic	2006
			Organic Enrichment/Low Dissolved Oxygen	2006
	Malibu Pathogens	Las Virgenes Creek	High Coliform Count	2005
		Lindero Creek Reach 1	High Coliform Count	2005
		Lindero Creek Reach 2 (Above Lake)	High Coliform Count	2005
		Malibu Creek	High Coliform Count	2005
		Malibu Lagoon	Enteric Viruses	2005
			High Coliform Count	2005
			Shellfish Harvesting Advisory	2005
			Swimming Restrictions	2005
		Medea Creek Reach 1 (Lake to Confl. with Lindero)	High Coliform Count	2005
		Medea Creek Reach 2 (Abv Confl. with Lindero)	High Coliform Count	2005
		Palo Comado Creek	High Coliform Count	2005
		Stokes Creek	High Coliform Count	2005
	Marina Del Rey Toxics	Marina del Rey Harbor - Back Basins	Chlordane (tissue & sediment)	2005

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
			DDT (tissue)	2005
			Dieldrin (tissue)	2005
			Fish Consumption Advisory	2005
			PCBs (tissue & sediment)	2005
			Sediment Toxicity	2005
	Marina del Rey Harbor - Back Basins Metals (AU #56)	Marina del Rey Harbor - Back Basins	Copper (sediment)	2005
			Lead (sediment)	2005
			Zinc (sediment)	2005
	Marina del Rey Pathogens	Marina del Rey Harbor - Back Basins	High Coliform Count	2003
		Marina del Rey Harbor Beach	Beach Closures	2003
			High Coliform Count	2003
	McGrath Beach Coliform	McGrath Beach	High Coliform Count	2003
	San Gabriel River Metals (39)	Coyote Creek	Copper, Dissolved	2006
			Lead, Dissolved	2006
			Selenium, Total	2006
			Zinc, Dissolved	2006
		San Gabriel River Reach 2 (Firestone to Whittier Narrows Dam	Copper, Dissolved	2006
			Lead	2006
			Zinc, Dissolved	2006
	San Gabriel River Nutrients	Coyote Creek	Algae	2007
			Toxicity	2007
		San Gabriel River Reach 1 (Estuary to Firestone)	Algae	2007
			Toxicity	2007
		San Gabriel River Reach 3 (Whittier Narrows to Ramona)	Toxicity	2007
		San Jose Creek Reach 1 (SG Confluence to Temple St.)	Algae	2007
		San Jose Creek Reach 2 (Temple to I-10 at White Ave.)	Algae	2007
		Walnut Creek Wash (Drains from Puddingstone Res)	Toxicity	2007
			pH	2007
	Santa Clara River Chloride	Santa Clara River Reach 7 (Blue Cut to West Pier Hwy 99 Bridge)	Chloride	2004

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
		Santa Clara River Reach 8 (W Pier Hwy 99 to Bouquet Cyn Rd.)	Chloride	2004
	Santa Clara River Nitrogen	Brown Barranca/Long Canyon	Nitrate and Nitrite	2003
		Mint Canyon Creek Reach 1 (Confl to Rowler Cyn)	Nitrate and Nitrite	2003
		Santa Clara River Reach 3 (Freeman Diversion to A Street)	Ammonia	2003
		Santa Clara River Reach 7 (Blue Cut to West Pier Hwy 99 Bridge)	Nitrate and Nitrite	2003
		Torrey Canyon Creek	Nitrate and Nitrite	2003
		Wheeler Canyon/Todd Barranca	Nitrate and Nitrite	2003
5	Acid Mine Drainage and Metals TMDL Project	Arcade Creek	Copper	2020
		Camanche Reservoir	Copper	2020
			Zinc	2020
		Dolly Creek	Copper	2020
			Zinc	2020
		Dunn Creek (Mt Diablo Mine to Marsh Creek)	Metals	2020
		Horse Creek (Rising Star Mine to Shasta Lake)	Cadmium	2020
			Copper	2020
			Lead	2020
			Zinc	2020
		Humbug Creek	Copper	2020
			Zinc	2020
		James Creek	Nickel	2020
		Kanaka Creek	Arsenic	2020
		Keswick Reservoir (portion downstream from Spring Creek)	Cadmium	2020
			Copper	2020
			Zinc	2020
		Little Backbone Creek, Lower	Acid Mine Drainage	2020
			Cadmium	2020
			Copper	2020
			Zinc	2020
		Little Cow Creek (downstream from	Cadmium	2020

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
		Afterthought Mine)		
			Copper	2020
			Zinc	2020
		Little Grizzly Creek	Copper	2020
			Zinc	2020
		Marsh Creek (Dunn Creek to Marsh Creek Reservoir)	Metals	2020
		Marsh Creek (Marsh Creek Reservoir to San Joaquin River)	Metals	2020
		Mokelumne River, Lower	Copper	2020
			Zinc	2020
		Shasta Lake (area where West Squaw Creek enters)	Cadmium	2020
			Copper	2020
			Zinc	2020
		Spring Creek, Lower (Iron Mountain Mine to Keswick Reservoir)	Acid Mine Drainage	2020
			Cadmium	2020
			Copper	2020
			Zinc	2020
		Town Creek	Cadmium	2020
			Copper	2020
			Lead	2020
			Zinc	2020
		West Squaw Creek (below Balaklala Mine)	Cadmium	2020
			Copper	2020
			Lead	2020
			Zinc	2020
		Willow Creek (Shasta County, below Greenhorn Mine to Clear Creek)	Acid Mine Drainage	2020
			Copper	2020
			Zinc	2020
	American River Mercury and Methylmercury TMDL Project	American River, Lower (Nimbus Dam to confluence with Sacramento River)	Mercury	2008
	Bear Creek and Sulphur Creek Mercury TMDL Project	Bear Creek	Mercury	2005
		Sulphur Creek (Colusa County)	Mercury	2005
	Bear River Watershed Mercury TMDL Project	Bear River, Upper	Mercury	2011

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
		Camp Far West Reservoir	Mercury	2011
		Combie, Lake	Mercury	2011
	Black Butte Reservoir Mercury TMDL	Black Butte Reservoir	Mercury	2015
	Cache Creek, Bear Creek, Sulphur Creek, and Harley Gulch Mercury TMDL Project	Bear Creek	Mercury	2005
		Cache Creek, Lower (Clear Lake Dam to Cache Creek Settling Basin near Yolo Bypass)	Mercury	2005
		Harley Gulch	Mercury	2005
		Sulphur Creek (Colusa County)	Mercury	2005
	Central Valley Organo-chlorine Pesticides	Colusa Basin Drain	Group A Pesticides	2011
		Delta Waterways (Stockton Ship Channel)	DDT	2011
			Group A Pesticides	2011
		Delta Waterways (eastern portion)	DDT	2011
			Group A Pesticides	2011
		Delta Waterways (western portion)	DDT	2011
			Group A Pesticides	2011
		Feather River, Lower (Lake Oroville Dam to Confluence with Sacramento River)	Group A Pesticides	2011
		Merced River, Lower (McSwain Reservoir to San Joaquin River)	Group A Pesticides	2011
		Orestimba Creek (above Kilburn Road)	DDE	2011
		Orestimba Creek (below Kilburn Road)	DDE	2011
		San Joaquin River (Bear Creek to Mud Slough)	DDT	2011
			Group A Pesticides	2011
		San Joaquin River (Mendota Pool to Bear Creek)	DDT	2011
			Group A Pesticides	2011
		San Joaquin River (Merced River to South Delta Boundary)	DDT	2011
			Group A Pesticides	2011
		San Joaquin River (Mud	DDT	2011

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
		Slough to Merced River)		
			Group A Pesticides	2011
		Stanislaus River, Lower	Group A Pesticides	2011
		Tuolumne River, Lower (Don Pedro Reservoir to San Joaquin River)	Group A Pesticides	2011
	Clear Lake Mercury TMDL Project	Clear Lake	Mercury	2003
	Clear Lake Nutrient TMDL Project	Clear Lake	Nutrients	2006
	Cow Creek Watershed Pathogens	Clover Creek	Fecal Coliform	2012
		Oak Run Creek	Fecal Coliform	2012
		South Cow Creek	Fecal Coliform	2012
	Dairies TMDL	Avena Drain	Ammonia	2020
			Pathogens	2020
		Lone Tree Creek	Ammonia	2020
			Biological Oxygen Demand	2020
			Electrical Conductivity	2020
		Temple Creek	Ammonia	2020
			Electrical Conductivity	2020
	Davis Creek Reservoir Mercury TMDL Project	Davis Creek Reservoir	Mercury	2010
	Deer Creek pH	Deer Creek (Yuba County)	pH	2011
	Delta Mercury and Methylmercury TMDL Project	Delta Waterways (Stockton Ship Channel)	Mercury	2006
				2006
		Delta Waterways (eastern portion)	Mercury	2006
				2006
		Delta Waterways (western portion)	Mercury	2006
				2006
	Fall River Sediment	Fall River (Pit)	Sedimentation/Siltation	2016
	Feather River Mercury TMDL Project	Feather River, Lower (Lake Oroville Dam to Confluence with Sacramento River)	Mercury	2009
	Harding Drain Ammonia	Harding Drain (Turlock Irrigation District Lateral #5)	Ammonia	2007
	Kings River	Kings River, Lower (Island Weir to Stinson and Empire Weirs)	Electrical Conductivity	2015
			Molybdenum	2015
			Toxaphene	2015

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
	Marsh Creek Watershed Mercury TMDL Project	Dunn Creek (Mt Diablo Mine to Marsh Creek)	Mercury	2013
		Marsh Creek (Marsh Creek Reservoir to San Joaquin River)	Mercury	2013
		Marsh Creek Reservoir	Mercury	2013
	Natomas East Main Drain PCBs	Natomas East Main Drainage Canal (aka Steelhead Creek, downstream of confluence with Arcade Creek)	PCBs	2020
		Natomas East Main Drainage Canal (aka Steelhead Creek, upstream of confluence with Arcade Creek)	PCBs	2020
	Panoche Creek Sediment and Selenium	Panoche Creek (Silver Creek to Belmont Avenue)	Sedimentation/Siltation	2007
			Selenium	2007
	Panoche Creek and San Carlos Creek Mercury TMDL Project	Panoche Creek (Silver Creek to Belmont Avenue)	Mercury	2020
		San Carlos Creek (downstream of New Idria Mine)	Mercury	2020
	Pit River	Pit River	Nutrients	2013
			Organic Enrichment/Low Dissolved Oxygen	2013
			Temperature	2013
	Putah Creek Watershed Mercury TMDL	Berryessa, Lake	Mercury	2015
		James Creek	Mercury	2015
		Putah Creek, Lower	Mercury	2015
	Sacramento River Mercury TMDL Project	Sacramento River (Knights Landing to the Delta)	Mercury	2010
				2008
	Sacramento Slough Mercury TMDL Project	Sacramento Slough	Mercury	2020
	Sacramento and San Joaquin Pesticides Basin Plan Amendment and TMDLs	Bear River, Lower (below Camp Far West Reservoir)	Diazinon	2008
		Butte Slough	Diazinon	2008
		Colusa Basin Drain	Azinphos-methyl	2008
			Carbofuran/Furadan	2008
			Diazinon	2008
			Malathion	2008
			Methyl Parathion	2008

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
			Molinate/Odram	2008
		Del Puerto Creek	Chlorpyrifos	2008
			Diazinon	2008
		Harding Drain (Turlock Irrigation District Lateral #5)	Chlorpyrifos	2008
			Diazinon	2008
		Ingram/Hospital Creek	Chlorpyrifos	2008
			Diazinon	2008
		Jack Slough	Diazinon	2008
		Merced River, Lower (McSwain Reservoir to San Joaquin River)	Chlorpyrifos	2008
			Diazinon	2008
		Natomas East Main Drainage Canal (aka Steelhead Creek, downstream of confluence with Arcade Creek)	Diazinon	2008
		Newman Wasteway	Chlorpyrifos	2008
			Diazinon	2008
		Orestimba Creek (above Kilburn Road)	Azinphos-methyl	2008
			Chlorpyrifos	2008
			Diazinon	2008
		Orestimba Creek (below Kilburn Road)	Azinphos-methyl	2008
			Chlorpyrifos	2008
			Diazinon	2008
		Sacramento Slough	Diazinon	2008
		Salt Slough (upstream from confluence with San Joaquin River)	Chlorpyrifos	2008
			Diazinon	2008
		Stanislaus River, Lower	Diazinon	2008
		Sutter Bypass	Diazinon	2008
		Tuolumne River, Lower (Don Pedro Reservoir to San Joaquin River)	Diazinon	2008
	San Joaquin River Diazinon and Chlorpyrifos	San Joaquin River (Bear Creek to Mud Slough)	Chlorpyrifos	2006
			Diazinon	2006
		San Joaquin River (Mendota Pool to Bear Creek)	Chlorpyrifos	2006
			Diazinon	2006

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
		San Joaquin River (Merced River to South Delta Boundary)	Chlorpyrifos	2006
			Diazinon	2006
		San Joaquin River (Mud Slough to Merced River)	Chlorpyrifos	2006
			Diazinon	2006
	San Joaquin River Dissolved Oxygen	Delta Waterways (Stockton Ship Channel)	Organic Enrichment/Low Dissolved Oxygen	2005
	San Joaquin River EC and Boron Upstream of Stanislaus Confluence	San Joaquin River (Bear Creek to Mud Slough)	Boron	2006
			Electrical Conductivity	2006
		San Joaquin River (Mendota Pool to Bear Creek)	Boron	2006
			Electrical Conductivity	2006
		San Joaquin River (Mud Slough to Merced River)	Boron	2006
			Electrical Conductivity	2006
	San Joaquin River Mercury TMDL Project	Don Pedro Lake	Mercury	2020
		San Joaquin River (Bear Creek to Mud Slough)	Mercury	2020
		San Joaquin River (Merced River to South Delta Boundary)	Mercury	2020
		San Joaquin River (Mud Slough to Merced River)	Mercury	2020
		Stanislaus River, Lower	Mercury	2020
	San Joaquin River Salt and Boron	San Joaquin River (Merced River to South Delta Boundary)	Boron	2004
				2004
				2004
			Electrical Conductivity	2004
				2004
				2004
	San Joaquin River Tributaries Salinity and Boron	Grasslands Marshes	Electrical Conductivity	2008
		Mud Slough	Boron	2008
			Electrical Conductivity	2008
		Salt Slough (upstream from confluence with San Joaquin River)	Boron	2008
			Electrical Conductivity	2008

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
	Stockton Area Sloughs and Rivers	Calaveras River, Lower	Diazinon	2008
			Organic Enrichment/Low Dissolved Oxygen	2008
			Pathogens	2008
		Five Mile Slough (Alexandria Place to Fourteen Mile Slough)	Chlorpyrifos	2008
			Diazinon	2008
			Organic Enrichment/Low Dissolved Oxygen	2008
			Pathogens	2008
		Mormon Slough (Commerce Street to Stockton Deep Water Channel)	Organic Enrichment/Low Dissolved Oxygen	2008
			Pathogens	2008
		Mormon Slough (Stockton Diverting Canal to Commerce Street)	Pathogens	2008
		Mosher Slough (downstream of I-5)	Chlorpyrifos	2008
			Diazinon	2008
			Organic Enrichment/Low Dissolved Oxygen	2008
			Pathogens	2008
		Mosher Slough (upstream of I-5)	Pathogens	2008
		Smith Canal	Organic Enrichment/Low Dissolved Oxygen	2008
			Organophosphorus Pesticides	2008
			Pathogens	2008
		Stockton Deep Water Channel, Upper (Port Turning Basin)	Pathogens	2008
		Walker Slough	Pathogens	2008
	Yuba River Watershed Mercury TMDL Project	Englebright Lake	Mercury	2012
		Humbug Creek	Mercury	2012
			Sedimentation/Siltation	2012
		Little Deer Creek	Mercury	2012
		Rollins Reservoir	Mercury	2012
		Scotts Flat Reservoir	Mercury	2012

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
6				
	Blackwood Creek	Blackwood Creek	Iron	2007
			Nitrogen	2007
			Phosphorus	2007
			Sedimentation/Siltation	2007
	Bodie Creek	Bodie Creek	Metals	2006
	Bridgeport Reservoir	Bridgeport Reservoir	Nitrogen	2006
			Phosphorus	2006
			Sedimentation/Siltation	2006
	Bronco Creek	Bronco Creek	Sedimentation/Siltation	2006
	Clearwater Creek	Clearwater Creek	Sedimentation/Siltation	2006
	Donner Lake PCBs	Donner Lake	Priority Organics	2007
	Gray Creek	Gray Creek (Nevada County)	Sedimentation/Siltation	2006
	Heavenly Valley Creek (source to USFS boundary) Sediment	Heavenly Valley Creek (source to USFS boundary)	Sedimentation/Siltation	2001
	Hot Springs Canyon Creek Sediment	Hot Springs Canyon Creek	Sedimentation/Siltation	2006
	Indian Creek Reservoir Phosphorus	Indian Creek Reservoir	Phosphorus	2002
	Lake Tahoe Nutrients/Sediment	Tahoe, Lake	Nitrogen	2007
			Phosphorus	2007
			Sedimentation/Siltation	2007
	Squaw Creek Sediment	Squaw Creek	Sedimentation/Siltation	2005
	Susan River Toxicity	Susan River	Unknown Toxicity	2007
	Truckee River Sediment	Truckee River	Sedimentation/Siltation	2006
	Ward Creek Sediment	Ward Creek	Iron	2007
			Nitrogen	2007
			Phosphorus	2007
			Sedimentation/Siltation	2007
7	Alamo River Sedimentation/Siltation	Alamo River	Silt	2001
	Coachella Valley Storm Channel Pathogen TMDL	Coachella Valley Storm Channel	Pathogens	2006
	Imperial Valley Drains (Niland 2, P, Pumice, and their tributary	Imperial Valley Drains	Sedimentation/Siltation	2004

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
	drains) Sediment TMDL			
	New River 1,2,4-trimethylbenzene TMDL	New River (Imperial)	1,2,4-trimethylbenzene	2006
	New River Chloroform TMDL	New River (Imperial)	Chloroform	2006
	New River Dissolved Oxygen TMDL	New River (Imperial)	Organic Enrichment/Low Dissolved Oxygen	2006
	New River M,P-Xylenes TMDL	New River (Imperial)	m,p,-Xylenes	2006
	New River Pathogen	New River	Bacteria	2001
	New River Sedimentation/Siltation	New River	Silt	2002
	New River Toluene TMDL	New River (Imperial)	Toluene	2006
	New River Trash TMDL	New River (Imperial)	Trash	2006
	New River o-Xylenes TMDL	New River (Imperial)	o-Xylenes	2006
	New River p-Cymene TMDL	New River (Imperial)	p-Cymene	2006
	New River p-Dichlorobenzene (DCB) TMDL	New River (Imperial)	p-Dichlorobenzene (DCB)	2006
	Palo Verde Outfall Drain Pathogen TMDL	Palo Verde Outfall Drain	Pathogens	2006
	Salton Sea Nutrient	New River (Imperial)	Nutrients	2006
		Salton Sea	Nutrients	2006
8	Big Bear Lake Tributaries Nutrient TMDLs	Grout Creek	Nutrients	2008
		Rathbone (Rathbun) Creek	Nutrients	2008
		Summit Creek	Nutrients	2008
	Big Bear Lake Watershed Metals TMDL	Big Bear Lake	Copper	2007
			Mercury	2007
			Metals	2007
		Grout Creek	Metals	2007
		Knickerbocker Creek	Metals	2007
	Big Bear Lake Watershed Nutrient TMDL	Big Bear Lake	Noxious aquatic plants	2006
			Nutrients	2006
	Big Bear Lake Watershed Sediment TMDL	Big Bear Lake	Sedimentation/Siltation	2006
		Rathbone (Rathbun) Creek	Sedimentation/Siltation	2006
	Canyon Lake Bacteria TMDL	Canyon Lake (Railroad Canyon Reservoir)	Pathogens	2005
	Knickerbocker Cr., Bacteria TMDL	Knickerbocker Creek	Pathogens	2005
				2005
	Lake Elsinore Toxicity TMDL	Elsinore, Lake	Unknown Toxicity	2007
	Lake Elsinore Watershed	Canyon Lake (Railroad	Nutrients	2004

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
	Nutrient TMDL	Canyon Reservoir)		
		Elsinore, Lake	Nutrients	2004
			Organic Enrichment/Low Dissolved Oxygen	2004
	Newport Bay Watershed Copper TMDL	Newport Bay, Lower	Copper	2006
		Newport Bay, Upper (Ecological Reserve)	Copper	2006
		San Diego Creek Reach 2	Metals	2006
	Newport Bay Watershed Organochlorine Compounds TMDL	Newport Bay, Lower	Pesticides	2006
			Priority Organics	2006
		Newport Bay, Upper (Ecological Reserve)	Pesticides	2006
		San Diego Creek Reach 1	Pesticides	2006
	Newport Bay Watershed Rhine Channel TMDLs	Newport Bay, Lower	Metals	2006
			Pesticides	2006
			Priority Organics	2006
	Newport Bay Watershed Selenium TMDL	San Diego Creek Reach 1	Selenium	2007
		San Diego Creek Reach 2	Metals	2007
	Prado Area Streams Pathogen TMDL	Chino Creek Reach 1	Pathogens	2005
		Chino Creek Reach 2	High Coliform Count	2005
		Cucamonga Creek, Valley Reach	High Coliform Count	2005
		Mill Creek (Prado Area)	Pathogens	2005
		Prado Park Lake	Pathogens	2005
		Santa Ana River, Reach 3	Pathogens	2005
9	7th Street Channel	San Diego Bay Shoreline, Seventh Street Channel	Benthic Community Effects	2008
			Sediment Toxicity	2008
	Bacteria Impaired Waters I (creeks and beach shorelines)	Aliso Creek	Bacteria Indicators	2005
		Aliso Creek (mouth)	Bacteria Indicators	2005
		Chollas Creek	Bacteria Indicators	2005
		Forester Creek	Fecal Coliform	2005
		Pacific Ocean Shoreline, Aliso HSA	Bacteria Indicators	2005
		Pacific Ocean Shoreline, Dana Point HSA	Bacteria Indicators	2005
		Pacific Ocean Shoreline, Laguna Beach HSA	Bacteria Indicators	2005
		Pacific Ocean Shoreline,	Bacteria Indicators	2005

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
		Miramar Reservoir HA		
		Pacific Ocean Shoreline, San Clemente HA	Bacteria Indicators	2005
		Pacific Ocean Shoreline, San Diego HU	Bacteria Indicators	2005
		Pacific Ocean Shoreline, San Diequito HU	Bacteria Indicators	2005
		Pacific Ocean Shoreline, San Joaquin Hills HSA	Bacteria Indicators	2005
		Pacific Ocean Shoreline, San Luis Rey HU	Bacteria Indicators	2005
		Pacific Ocean Shoreline, San Marcos HA	Bacteria Indicators	2005
		Pacific Ocean Shoreline, Scripps HA	Bacteria Indicators	2005
		Pine Valley Creek (Upper)	Enterococci	2010
		San Diego River (Lower)	Fecal Coliform	2005
		San Juan Creek	Bacteria Indicators	2005
	Bacteria Impaired Waters II (Bays, Lagoons, and Shorelines)	Agua Hedionda Lagoon	Bacteria Indicators	2006
		Buena Vista Lagoon	Bacteria Indicators	2008
		Dana Point Harbor	Bacteria Indicators	2006
		Loma Alta Slough	Bacteria Indicators	2008
		Pacific Ocean Shoreline, Buena Vista Creek HA	Bacteria Indicators	2008
		Pacific Ocean Shoreline, Escondido Creek HA	Bacteria Indicators	2008
		Pacific Ocean Shoreline, Loma Alta HA	Bacteria Indicators	2008
		Pacific Ocean Shoreline, Lower San Juan HSA	Bacteria Indicators	2008
		Pacific Ocean Shoreline, Tijuana HU	Bacteria Indicators	2010
		San Diego Bay Shoreline, Chula Vista Marina	Bacteria Indicators	2006
		San Diego Bay Shoreline, G Street Pier	Bacteria Indicators	2006
		San Diego Bay Shoreline, Shelter Island Shoreline Park	Bacteria Indicators	2006
		San Diego Bay Shoreline, Tidelands Park	Bacteria Indicators	2006
		San Diego Bay Shoreline, Vicinity of B St and Broadway Piers	Bacteria Indicators	2006
		San Elijo Lagoon	Bacteria Indicators	2008
		San Juan Creek (mouth)	Bacteria Indicators	2008

Regional Board	TMDL Project Name	Water Body	Pollutant	TMDL Completion Date
		Tecolote Creek	Bacteria Indicators	2006
		Tijuana River	Bacteria Indicators	2010
		Tijuana River Estuary	Bacteria Indicators	2010
	Chollas Creek Metals	Chollas Creek	Copper	2005
			Lead	2005
			Zinc	2005
	Mouth of Chollas Creek	San Diego Bay Shoreline, near Chollas Creek	Benthic Community Effects	2006
			Sediment Toxicity	2006
	NASSCO and Southwest Marine	San Diego Bay Shoreline, between Sampson and 28th Streets	Copper	2005
			Mercury	2006
			PAHs	2006