

LOS ANGELES REGIONAL
WATER QUALITY CONTROL BOARD

2016 CLEAN WATER ACT
SECTIONS 305(b) AND 303(d)
INTEGRATED REPORT
FOR THE LOS ANGELES REGION

STAFF REPORT

February 2017

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List of Acronyms and Abbreviations

Basin Plan	Water Quality Control Plan: Los Angeles Region
BPTCP	Bay Protection and Toxic Cleanup Program
BMI	Benthic Macro Invertebrates
CalWQA	California Water Quality Assessment (database)
CCC	Criteria Continuous Concentration
CCR	California Code of Regulations
CDPH	California Department of Public Health
CFR	Code of Federal Regulations
CMC	Criteria Maximum Concentration
CTR	California Toxics Rule
CWA	Clean Water Act
°C	degrees Celsius
°F	degrees Fahrenheit
FED	Functional Equivalent Document
DDE	Dichlorodiphenyldichloroethylene
DDT	Dichlorodiphenyltrichloroethane
DFW	Department of Fish and Wildlife, formerly Department of Fish and Game (DFG)
DO	Dissolved oxygen
dw	dry weight
ERM	Effects Range Median
HCH	Hexachlorocyclohexane
HSA	Hydrologic Sub Area
HU	Hydrologic Unit
IBI	Index of Biological Integrity
ILRP	Irrigated Lands Regulatory Program
IR	Integrated Report
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)
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

NTU	Nephelometric Turbidity Unit
oc	organic carbon
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
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
RBI	Relative Benthic Index
RL	Reporting Level
SCCWRP	Southern California Water Research Project
SMWP	State Mussel Watch Program
SQG	Sediment quality guideline
SWAMP	Surface Water Ambient Monitoring Program
TDS	Total Dissolved Solids
TIE	Toxicity Identification Evaluation
TMDL	Total Maximum Daily Load
TSMP	Toxic Substance Monitoring Program
TSS	Total Suspended Solids
U.S. EPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey
WDR	Waste Discharge Requirement
WQO	Water quality objective
WQS	Water quality standard
ww	wet weight

1. Introduction

The federal Clean Water Act (CWA) gives states the primary responsibility for protecting and restoring water quality. Under CWA Section 305(b), states are required to report biennially to the United States Environmental Protection Agency (USEPA) on the water quality conditions of their surface waters. The USEPA then compiles these assessments into their biennial “National Water Quality Inventory Report” to Congress. Under CWA Section 303(d), states are required to review, makes changes as necessary, and submit to the USEPA a list identifying waterbodies not meeting water quality standards and identifying the water quality parameter (i.e., pollutant) not being met (303(d) list). Placement on this list generally triggers development of a pollution control plan called a total maximum daily load (TMDL) for each waterbody/pollutant pair on the list.

In 2002, the USEPA issued guidance to states requiring that the 305(b) water quality assessment and the 303(d) list of impaired waters be integrated into a single report. This report is called the Integrated Report, and it satisfies both the CWA Section 305(b) and Section 303(d) requirements. The Los Angeles Regional Water Quality Control Board (Los Angeles Water Board) is responsible for developing and adopting the 2016 Integrated Report for waters within the Los Angeles Region of California. Following adoption by the Los Angeles Water Board, the 2016 Integrated Report will be transmitted to the State Water Resources Control Board (State Water Board), where it will be considered by the State Water Board in combination with other Regional Water Board Integrated Reports.

The purpose of this staff report is to describe the assessment process (the procedures used by the State Water Board and Los Angeles Water Board staff to analyze data and information), provide a report of surface water quality in the Los Angeles Region as required by CWA Section 305(b), and provide Los Angeles Water Board staff recommendations for additions, deletions, and changes to the California CWA Section 303(d) List.

The results of the staff analysis are presented as staff recommendations in the form of fact sheets that contain a decision and supporting lines of evidence for each water body/pollutant pair assessed. A summary of staff recommendations can be found in Section 4. The fact sheets are available in Appendix G of this Staff Report.

2. Legal Requirements and Policy

This section provides a summary of the federal and state legal requirements and applicable policies for the 2016 Integrated Report.

2.1 Federal Requirements

2.1.1 CWA Section 303(d) – Impaired Waters

Section 303(d) of the Clean Water Act requires states to identify waters that do not meet applicable water quality standards after the application of certain technology-based controls.¹ 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.

Water quality standards include the designated beneficial uses of a waterbody, the adopted water quality objectives to protect those uses (numeric and narrative), and the State's Antidegradation Policy (State Water Board Resolution No. 68-16) (SWRCB 1968).

Federal regulation defines a "water quality limited segment" as "any segment [of a surface waterbody] 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" (40 CFR 130.2(j)).

States are required to review the Section 303(d) List in even-numbered years, make changes as necessary, and submit the list to the USEPA for approval. A TMDL is generally developed for a water quality limited segment. A TMDL is the sum of the individual waste load allocations for point sources, load allocations for nonpoint sources, and natural background (40 CFR 130.2(i)).

2.1.2 CWA Section 305(b) – Water Quality Assessment

Under CWA Section 305(b), states are required to report biennially to the USEPA on the water quality conditions of their surface waters. The USEPA then compiles these assessments into their biennial "National Water Quality Inventory Report" to Congress.

2.1.3 The Integrated Report and Waterbody Categories

In 2002, the USEPA issued guidance to states requiring that the 305(b) water quality assessment and the 303(d) list of impaired waters be integrated into a single report. This report is called the Integrated Report, and it satisfies both the CWA Section 305(b) and Section 303(d) requirements.

To meet CWA Section 305(b) requirements of reporting on water quality conditions, the Integrated Report places each assessed waterbody segment into one of five non-overlapping

¹ Technology-based controls are defined in CWA Section 301. They include effluent limits (primary and secondary treatment requirements) for industrial discharges and discharges from publicly owned treatment works.

categories based on the overall beneficial use support of the water segment and the need for a TMDL. Water segments are evaluated for at least one of six “core” beneficial uses including: municipal and domestic supply, aquatic life support, fish consumption, shellfish harvesting, contact recreation, and non-contact recreation.

Table 1. Integrated Report Categories

Category	Description
1	All assessed beneficial uses supported and no beneficial uses known to be impaired.
2	There is insufficient information to determine beneficial use support.
3	There is insufficient data and/or information to make a beneficial use support determination but information and/or data indicates beneficial uses may be potentially threatened.
4	At least one beneficial use is not supported but TMDL is not needed.
4a	A TMDL has been developed and approved by U.S.EPA for any waterbody-pollutant combination and the approved implementation plan is expected to result in full attainment of the water quality standard within a specified time frame..
4b	Another regulatory program is reasonably expected to result in attainment of the water quality standard within a reasonable, specified time frame.
4c	The non-attainment of any applicable water quality standard for the waterbody segment is the result of pollution and is not caused by a pollutant.
5	At least one beneficial use is not supported and a TMDL is needed.

A waterbody will often have multiple pollutants impairing multiple beneficial uses. In these cases, when the waterbody has TMDLs for all the impaired uses, the waterbody is placed in category 4a; when the waterbody is lacking a TMDL for at least one impairment, the waterbody is placed in category 5.

2.2 California Requirements

On September 30, 2004, the State Water Board adopted the “Water Quality Control Policy for Developing California’s Clean Water Act Section 303(d) List,” also known as the Listing Policy (SWRCB 2004a) in accordance with California Water Code Section 13191.3(a). The Listing Policy identifies the process by which the State Water Board and the Regional Water Quality Control Boards will comply with the listing requirements of CWA Section 303(d). The Listing Policy became effective in December 2004. Justification of each portion of the Listing Policy is presented in the Final Functional Equivalent Document (SWRCB, 2004b) that was developed to support the provisions of the Listing Policy.

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 generally be developed as needed for the waters identified under the provisions of the Listing Policy.

The Listing Policy outlines a "weight of evidence" approach that provides the rules for making decisions based upon different kinds of data, an approach for analyzing data statistically, and requirements for data quality, data quantity, and the 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 attained or not attained and the other decision rules do not support listing or delisting.

The Listing Policy also provides direction related to:

- The definition of readily available data and information.
- Administration of the listing process including data solicitation and fact sheet preparation.
- Interpretation of narrative water quality objectives using numeric evaluation guidelines.
- Data quality assessments.
- Data quantity assessments including waterbody 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.

The Listing Policy requires that *all* surface waters that do not meet water quality standards be placed on the Section 303(d) List. The Policy also states that the California 303(d) List includes (1) waters still requiring a TMDL under Category 5, and (2) waters where the water quality limited segment is being addressed under Category 4. Waterbodies in the "Water Quality Limited Segments Being Addressed" category must meet either of the following conditions:

1. A TMDL has been approved by USEPA and is expected to result in full attainment of the standard within a reasonable, specified time frame (Category 4a).
2. It has been 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 (Category 4b).

Waterbodies that are impaired by a non-pollutant source (Category 4c) do not require a TMDL and the State Water Board, in accordance with the Listing Policy, does not consider waters in Category 4c as a part of the 303(d) List. This means that, for California, waters that fall into the Integrated Report Categories 4a, 4b, and 5 are considered part of the California 303(d) List. The USEPA considers Category 5 waterbodies as the only category that constitutes the 303(d) List.

2.3 TMDL Scheduling

In conformance with Section 5 of the Listing Policy, a TMDL completion schedule date is required for all waterbody-pollutant combinations placed on the 303(d) List. Water Board staff relied on guidance from the USEPA (1997), which states that “schedules should be expeditious and normally extend from eight to thirteen years in length, but could be shorter or slightly longer depending on State-specific factors.” Therefore, the timeline for completing TMDLs for waterbodies listed for the first time as part of the 2016 Integrated Report is estimated to be no longer than thirteen years, which equates to an estimated completion date of 2029. Expected TMDL completion dates are proposed by Los Angeles Water Board staff in the fact sheets of this report (Appendix G).

2.4 2010 303(d) List of Impaired Waters

The 2010 303(d) list was adopted by the Los Angeles Water Board on July 16, 2009, in Resolution No. R09-004; adopted by the State Water Board on August 4, 2010, in Resolution No. 2010-0040; and approved by the USEPA on October 11, 2011. The 2010 list included data submitted through February 28, 2007. The 2010 303(d) list is the most recent list which included updates from the Los Angeles Region.

2.5 Changes to California’s Integrated Report 303(d) and 305(b) Process

In February 2013, the State Water Board announced a new strategy for the development of the State’s Integrated Report including establishing three groups of Regional Water Boards and submitting an Integrated Report for one group per listing cycle (i.e. every two years). This strategy was formally described in an *Integrated Report Update Memo* in November 2013 (SWRCB, 2013). The Listing Policy was amended to reflect this and other changes on February 3, 2015.

Therefore, the 2012 Integrated Report consisted of data submitted for the North Coast Regional Water Quality Control Board (Region 1), the Lahontan Regional Water Quality Control Board (Region 6), and the Colorado River Basin Regional Water Quality Control Board (Region 7). On July 30, 2015, the USEPA issued its final decision this update to the 303(d) list and this 2012 303(d) list replaced the 2010 303(d) list as California's current 303(d) list.

The Central Coast Regional Water Quality Control Board (Region 3), the Central Valley Regional Water Quality Control Board (Region 5), and the San Diego Regional Water Quality Control Board (Region 9) recently approved Integrated Reports including a 303(d) list for their respective regions. Region 9 approved its 303(d) list in October 2016 and Regions 3 and 5 approved their 303(d) lists in December 2016. These updates to the 303(d) list were to be approved by the State Water Board as the 2014 303(d) list.

The 2016 Integrated Report will consist of data for the San Francisco Bay Regional Water Quality Control Board (Region 2), the Los Angeles Water Board (Region 4), and the Santa Ana Regional Water Quality Control Board (Region 8). Each of these Regions is expected to approve

their lists by April 2017. Until the 2014 and 2016 303(d) list updates are approved by the USEPA, the current list is the 2012 303(d) list.

Due to the volume of data received during the 2010 data solicitation period, the State Water Board determined that no additional data would be solicited or analyzed until all the 2010 data are assessed. Each of the 2012, 2014 and 2016 303(d) lists have assessed only data from the 2010 data solicitation.

In addition, changes to the procedures included in the February 2015 amendment to the Listing Policy, included a requirement that all data be submitted to the California Environmental Data Exchange Database (CEDEN); this change will significantly improve the efficiency of the listing and delisting process so that even with regional updates only once every six years, California will have a more comprehensive assessment and 303(d) list than in the past. The CEDEN website has a new page dedicated to the 303(d) list: http://www.ceden.org/303d_list.shtml.

The data solicitation for the 2018 303(d) list was released on November 3, 2016. The 2018 303(d) list will address Regions 1, 6, and 7.

The Los Angeles Water Board will develop its next Integrated Report, including an updated 303(d) list, in 2022. Los Angeles Water Board staff estimates that the 2022 303(d) list will include data submitted through 2021.

2.6 Public Review and Board Approval of the 2016 303(d) List

Pursuant to section 6.2 of the Listing Policy, waterbodies listed in Category 4a, 4b, or 5, which make up the 303(d) list, are subject to public review and approval by the Los Angeles Water Board. Waterbodies listed in Categories 1, 2, 3, or 4c are provided to the public and to the Los Angeles Water Board as additional waterbody information. All categories will be submitted to the State Water Board for inclusion into the California Integrated Report. Once compiled, the State Water Board will provide public notice of the California Integrated Report for additional public review prior to approval by the State Water Board, as outlined in section 6.3 of the Listing Policy. Waterbodies in Categories 4a, 4b, and 5 will be considered for inclusion in the California 303(d) list.

It is anticipated that the State Water Board will approve the 2014 list updates of Regional 3, 5 and 9 and the 2016 list updates of Regions 2, 4, and 8, during the same State Water Board hearing in 2017.

The California 303(d) list will require final approval by USEPA. If USEPA determines that changes are needed to the submitted report they will initiate further public review before finalizing and publishing the report.

3. Development of the 2016 Los Angeles Region 303(d) List

This section provides a review of the data analysis for the Los Angeles Region’s 2016 Integrated Report.

3.1 Data Solicitation for the 2016 303(d) List

In January of 2010, the State Water Board solicited data from the public with a formal “Notice of Public Solicitation of Water Quality Data and Information for the California Integrated Report” (Notice), which was sent to interested persons subscribed to the State Water Board’s Integrated Report e-mail distribution list. In addition, the Los Angeles Water Board sent the notice to persons subscribed to the Los Angeles Water Board’s Basin Plan Amendments and TMDL e-mail distribution lists. Data used as part of the 2016 Integrated Report were received through August 30, 2010. Data sources include government agencies, municipalities, environmental groups, citizen groups, receiving water data from the National Pollutant Discharge Elimination System (NPDES) dischargers and data collected by the Regional and State Water Boards under the Surface Water Ambient Monitoring Program (SWAMP).

All data and information submitted are available as part of the electronic administrative record (Appendix H). Data and information pertaining to specific waterbody-pollutant assessments are provided in the fact sheets (Appendix G) and link directly to the administrative record.

3.2 Data Processing and Analysis

All readily available data and information in the administrative record was considered in the development of the 2016 Integrated Report. However, only high-quality data supported by a Quality Assurance Project Plan was used to make determinations of water quality standards attainment. In the absence of quality assurance documentation, data is used only as supporting evidence and is not the basis of a listing decision.

Fact sheets and overall beneficial use support determinations were developed in the California Water Quality Assessment (CalWQA) database. Lines of evidence (LOE) summarize: water quality data, information pertaining to where and when the water quality monitoring took place, the pollutant sampled, the beneficial use affected, the water quality objective or guideline protective of the beneficial use, the number of samples collected, and how many samples exceeded the objective or guideline. Potential sources are identified in fact sheets in some cases, otherwise, the potential source was marked “Source Unknown”.

Data were aggregated by waterbody segment following the requirements of Section 6.1.5.4 of the Listing Policy, and assessments were performed on the individual segments. Waterbodies were segmented to account for hydrologic features.

Spatial and temporal representation of data was assessed using the requirements and guidance of the Listing Policy. The available data were used to represent concentrations during the averaging period associated with the particular pollutant and water quality objective, as required by Section 6.1.5.6 of the Listing Policy. For example, if only one data point was available during a 4-day period, it was used to represent the four-day average concentration for that period.

Following data assessment, Los Angeles Water Board staff determined whether or not the waterbody was attaining relevant water quality standards. Decision recommendations were completed to summarize all relevant LOEs for a waterbody-pollutant combination and, based on the statistical evaluation described in the Listing Policy, to state if the exceedances of water quality standards constituted an impairment of a beneficial use and, thus, necessitated a 303(d) listing.

3.3 Water Quality Standards Used in the Data Assessment

Beneficial uses for waters in the Los Angeles Region are identified in Table 2-1, 2.1a and 2.3 of the Los Angeles Regional Water Quality Control Plan (Basin Plan).

Water Board staff assessed data using regulatory limits when available. The most common regulatory limits used include water quality objectives in the Basin Plan or any statewide Water Quality Control Plans applicable to the waterbody, including objectives for toxic chemicals promulgated by the USEPA under the California Toxics Rule (40 CFR §131.38). When numeric regulatory limits were not available, evaluation guidelines were considered to interpret narrative water quality objectives. Evaluation guidelines are selected in conformance with section 6.1.3 of the Listing Policy.

3.4 Determination of Beneficial Use Support and Integrated Report Categories

To meet CWA Section 305(b) requirements of reporting on water quality conditions, the Integrated Report places each assessed waterbody segment into one of five non-overlapping categories based on the overall beneficial use support of the water segment and the need for a TMDL. Water segments were evaluated for at least one of six “core” beneficial uses including: municipal and domestic supply, aquatic life support, fish consumption, shellfish harvesting, contact recreation, and non-contact recreation. For each core beneficial use associated with each waterbody segment, a rating of fully supporting, not supporting, or insufficient information was assigned based on the assessment of readily available data and information.

Table 2. Los Angeles Integrated Report Waterbody Categories, 2016 303(d) List

Category	Description	Waterbody Segments
1	All assessed beneficial uses supported and no beneficial uses known to be impaired.	34
2	There is insufficient information to determine beneficial use support.	56
3	There is insufficient data and/or information to make a beneficial use support determination but information and/or data indicates beneficial uses may be potentially threatened.	15
4	At least one beneficial use is not supported but TMDL is not needed.	
4a	A TMDL has been developed and approved by U.S.EPA for any waterbody-pollutant combination and the approved implementation plan is expected to result in full attainment of the water quality standard within a specified time frame.	74
4b	Another regulatory program is reasonably expected to result in attainment of the water quality standard within a reasonable, specified time frame.	0
4c	The non-attainment of any applicable water quality standard for the waterbody segment is the result of pollution and is not caused by a pollutant.	0
5	At least one beneficial use is not supported and a TMDL is needed.	140
Total waterbodies assessed		319

Detailed Category Reports can be found in Appendices B-F.

Pursuant to Section 2 of the Listing Policy, waterbodies remain in Category 5 until all 303(d)-listed pollutants are addressed by USEPA-approved TMDLs or by another regulatory program that is expected to result in the reasonable attainment of the water quality standards, at which point the waterbody will be placed into Category 4a or 4b. Impaired waters are placed in Category 4c if the impairment is not caused by a pollutant but rather caused by pollution, such as flow alteration or habitat alteration. Waterbodies placed in Category 4c are not included as part of the 303(d) list and do not require the development of a TMDL.

Waterbody-pollutant combinations listed in Category 5 (Appendix B) show the TMDL requirement status. If a “TMDL is still needed” for the waterbody-pollutant combination, the TMDL requirement status is labeled 5A. If the waterbody-pollutant combination is “being addressed by a USEPA approved TMDL”, the TMDL requirement status is labeled 5B. If the waterbody-pollutant combination is “being addressed by an action other than a TMDL”, the TMDL requirement status is labeled 5C. These labels were created for internal tracking and are not Integrated Report sub-categories required by the USEPA.

4. Proposed Changes to the Section 303(d) List

While, due to the changes to the 303(d) process described in Section 2.5, data review was restricted to data collected prior to September 2010, a significant number of changes to the Los Angeles Region's 303(d) list are proposed. The 200 proposed new listings include:

- Additional PCB and pesticide listings arising from California's Surface Water Ambient Monitoring Program (SWAMP) water quality sampling conducted in 2009 focusing on lakes and reservoirs. For example, staff has proposed new listings for Castaic Lake (PCBs), Pyramid Lake (chlordane, dieldrin, DDT and PCBs) and Echo Park Lake (dieldrin).
- Additional pesticide and other pollutant listings in Ventura County waters draining agricultural lands including the Santa Clara Drain, Tapo Canyon, Wheeler Canyon and Boulder Cove, arising from the Ventura County Agricultural Irrigated Lands Group water quality monitoring.
- Additional toxicity listings in the Los Angeles River arising from water quality sampling conducted the City of Los Angeles' Bureau of Sanitation, required pursuant to the City's NPDES permits.
- Various other proposed listings arising from special studies or ongoing water quality monitoring programs.

Most of the proposed new listings are new waterbody segment-pollutant combinations where a TMDL will be needed. These waterbodies would then be in Category 5. However, several of the proposed new listings identify additional impairments in watersheds already being addressed by a TMDL for that pollutant. For example, the proposed new listings for DDE and DDD in Calleguas Creek Reach 3 and the proposed chlordane, DDE and DDD listings in Hondo Barranca are being addressed by the Calleguas Creek Organochlorine Pesticides, PCBs and Siltation TMDL. In addition, the proposed Los Angeles River Reach 3 indicator bacteria listing is already being addressed by the Los Angeles River Bacteria TMDL. These waterbodies would then be in Category 4a unless another waterbody pollutant combination requires a TMDL such that the waterbody would remain in Category 5.

The proposed 40 delistings include:

- Several proposed delistings for indicator bacteria at Santa Monica Beaches, including Abalone Cove Beach, Bluff Cove Beach, Outer Cabrillo Beach, Manhattan Beach and Hermosa Beach. It is important to note that the Santa Monica Bay Bacteria TMDL remains in effect for those beaches even if the delistings are fully approved.
- Various other proposed delistings arising from special studies or ongoing water quality monitoring programs.

In a number of cases, in both fresh and marine waters, listings for “coliform bacteria” were renamed “indicator bacteria” based on USEPA’s recommendation and for statewide consistency.

In addition, because 21 TMDLs including 252 listings, have gone into effect since the development of the 2010 303(d) list, a number of Category changes are proposed to change waterbody-pollutant combinations from “requiring a TMDL” (Category 5A) to “being addressed by a USEPA approved TMDL” (Category 5B or, if all waterbody-pollutant combinations have been addressed for that waterbody, Category 4a).

For detailed information on proposed changes, refer to the waterbody-pollutant “fact sheets” in Appendix G.

As discussed in Section 2.6, it is anticipated that the State Water Board will approve the 2014 list updates of Regions 3, 5 and 9 and the 2016 list updates of Regions 2, 4, and 8, during the same State Water Board hearing in 2017. Table 3, below, shows the 303(d) list changes approved by Regional Water Boards 3, 5 and 9 and the 303(d) list changes proposed, at this time, for approval by the staff of Regional Water Boards 2, 4, and 8.

Table 3. Summary of 2014 and 2016 Changes to the California 2012 303(d) List

2014-2016 INTEGRATED REPORT						
REGION	2012 303(d) LIST	2014 and 2016 303(d) List proposed changes				
	Total 303(d) Listings (Categories 4a, 4b and 5)	Regional Water Board 303(d) Listing Recommendations		Miscellaneous Changes*		Total proposed 303(d) Listings (Categories 4a, 4b and 5)
		New Listings	New Delisting	Resulting in Listings	Resulting in Delistings	
1	159	0	0	0	0	159
2	333	42	8	0	6	361
3	712	269	48	0	23	910
4	823	200	40	0	0	983
5	730	269	45	0	0	954
6	155	0	0	0	0	155
7	68	0	0	0	0	68
8	132	33	13	0	0	152
9	445	244	14	0	0	675
Totals	3557	1057	168	0	29	4417

*Miscellaneous changes include adjustments to the 303 (d) list when waterbody reaches are combined or split resulting in a decrease or increase in the number of listings.

5. References

For a complete list of references used in all the assessment fact sheets, see Appendix H.

SWRCB. (2004a). *Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List* (amended February 3, 2015). Sacramento, CA.

SWRCB. (2004b). *Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List, Final Functional Equivalent Document*. Sacramento, CA.

SWRCB. (2013). *California Integrated Report [Clean Water Act Sections 303(d) and 305(b)] Update* (Memorandum dated November 12, 2013). Sacramento, CA.

U.S. EPA. (2001). *2002 Integrated Water Quality Monitoring and Assessment Report Guidance* (Memorandum dated November 19, 2001). Washington, D.C.

U.S. EPA. (2015). *Information Concerning 2016 Clean Water Act Sections 303(d), 305(b), and 314 Integrated Report and Listing Decisions* (Memorandum dated August 13, 2015). Washington, D.C.