CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD CLEAN WATER ACT

SECTION 303(d) 2018 IMPAIRED WATERS LIST UPDATES FOR THE CENTRAL VALLEY REGION

DRAFT FINAL STAFF REPORT

May 2019

REGIONAL WATER QUALITY CONTROL BOARD - CENTRAL VALLEY REGION

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CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

Executive Summary

This report contains staff recommendations for updates to the California Integrated Report – Clean Water Act 303(d) List of Impaired Waters. The recommendations are based on data and information collected from the Central Valley Regional Water Quality Control Board (Central Valley Water Board) surface waterbodies (rivers, lakes, and delta) and submitted prior to the end of the data solicitation period for the 2018 Integrated Report cycle.

Proposed revisions to the 303(d) list during the 2018 Integrated Report cycle were limited to impaired waterbodies addressed by existing regulatory programs. A full assessment of all readily available data for Central Valley Water Board surface waters will be completed during the 2020 integrated reporting cycle.

This staff report provides background on the assessment process and the methods used. Primary data sources include several coalitions enrolled in the Central Valley Water Board's Irrigated Lands Regulatory Program, the Surface Water Ambient Monitoring Program, and the California Department of Pesticide Regulation. The assessments are summarized in waterbody fact sheets (see Appendix A).

Based on assessments of these data, staff recommend the following changes to the 303(d) List of impaired waterbodies:

- Listings being addressed by a TMDL – 41
- Listings being addressed by an action other than a TMDL – 22
- Removed from the 303(d) list of impaired waterbodies – 28

Following the public participation process, the Central Valley Water Board will consider adopting staff recommendations and sending them to the State Water Resources Control Board (State Water Board) for inclusion in the 2018 California Integrated Report.

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List of Acronyms and Abbreviations

Basin Plan	Regional Water Quality Control Plan
BPTCP	Bay Protection and Toxic Cleanup Program
BMI	Benthic Macro Invertebrates
CalWQA	California Water Quality Assessment (Database)
CCAMP	Central Coast Ambient Monitoring Program
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
ºC	Degrees Celsius
ºF	Degrees Fahrenheit
FED	Functional Equivalent Document
DDE	Dichlorodiphenyldichloroethylene
DDT	Dichlorodiphenyltrichloroethane
DFW	California Department of Fish and Wildlife, formerly Department of Fish and Game (DFG)
DO	Dissolved Oxygen
Dw	Dry Eight
ERM	Effects Range Median
HCH	Hexachlorocyclohexane
HAS	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	California 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
Regional Water Board	Regional Water Quality Control Board
RL	Reporting Level
SFEI	San Francisco Estuary Institute
SMWP	State Mussel Watch Program
SQG	Sediment quality guideline
State Water Board	State Water Resources Control Board
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

Introduction

The Clean Water Act (CWA) gives states the primary responsibility for protecting and restoring surface water quality. The State Water Board is California's water pollution control agency for all federal purposes (Cal. Wat. Code, § 13160). The State Water Board, along with the nine Regional Water Boards (collectively, the State Water Board and the Regional Water Boards are referred to as the Water Boards) protects and enhances the quality of California's water resources through implementing the Federal Water Pollution Control Act Amendments of 1972, as amended (33 U.S.C. § 1251 et seq.; Clean Water Act, § 101 et seq.), and California's Porter-Cologne Water Quality Control Act (Wat. Code, § 13000 et seq.).

Under the CWA, states that administer the CWA must review, make necessary changes to, and submit the CWA section 303(d) List to the U.S. Environmental Protection Agency (U.S. EPA). CWA section 305(b) requires each state to report biennially to U.S. EPA, on the condition of its surface water quality. The U.S. EPA guidance to the states recommends the two reports be integrated (U.S. EPA, 2005a). For California, this "Integrated Report" is called the California Integrated Report and combines the State Water Board's section 303(d) and 305(b) reporting requirements. The Central Valley Regional Water Quality Control Board (Central Valley Water Board) is responsible for developing and adopting the Integrated Report for waters within the Central Valley Region.

As explained below in the section, *Integrated Report Cycles*, California submits an Integrated Report to the U.S. EPA every two years, but each of the nine Regional Water Boards only assesses all its waterbodies every six years. When a Regional Water Board is scheduled to assess all its waterbodies for the Integrated Report, it is "on-cycle." The Central Valley Water Board was on-cycle in 2014 and, accordingly, evaluated all water quality data and developed listing and de-listing recommendations for all waters in the region as part of the 2014/2016 Integrated Report.

Regional Water Boards that are "off-cycle" during each two-year Integrated Report cycle have the discretion to assess new "high-priority" data and make new listing/delisting decisions. Following adoption by the off-cycle Regional Water Board, the new listing/delisting decisions will be transmitted to the State Water Board for approval and inclusion with the statewide on-cycle 2018 303(d) List and Integrated Report. Because the Central Valley Water Board is not on-cycle for the 2018 cycle, it is not preparing a full integrated report but is rather making a small number of changes to the 303(d) List. Proposed revisions to the 303(d) list during the 2018 Integrated Report cycle were limited to impaired waterbodies addressed by existing regulatory programs. A full assessment of all readily available data for Central Valley Water Board waterbodies will be completed during the 2020 integrated reporting cycle.

The purpose of this Staff Report for the 2018 Integrated Report is to describe the assessment process and provide recommendations for changes to the 303(d) List for the 2018 listing cycle.

Water Quality Assessment

The water quality assessment process begins with the evaluation of data collected from surface water quality monitoring activities in California. The data collected are analyzed to determine if a waterbody is meeting or exceeding water quality standards. The attainment of water quality standards is determined by comparing data to objectives, criteria, and guidelines (protective

limits). Whether or not these protective limits are exceeded determines a water segment's ability to support its assigned beneficial uses and whether to recommend listing, or not listing, the waterbody-pollutant combination on the 303(d) List.

CWA Section 303(d) – Impaired Waters

The 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.[1] The 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 the CWA and federal regulations, water quality standards include the designated uses of a waterbody and the adopted water quality criteria. Under state law (Porter-Cologne Water Quality Control Act, Wat. Code § 13300 et seq.), Water Quality Control Plans (Basin Plans) establish water quality standards for particular waterbodies and consist of the beneficial uses to be made of a waterbody, the established water quality objectives (both narrative and numeric), and program of implementation for achieving water quality objectives, including the State's Antidegradation Policy (State Water Resources Control Board Resolution No. 68-16).

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 303(d) List in even-numbered years, make changes as necessary, and submit the list to the U.S. EPA for approval. A Total Maximum Daily Load (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(j)).

The Listing Policy

Recommendations to place a waterbody segment on the 303(d) List are made in conformance with the Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List, commonly referred to as the Listing Policy (SWRCB, 2015). The Listing Policy establishes a standardized approach for developing California's section 303(d).

The Listing Policy states that all readily available data and information shall be reviewed. Readily available data and information is defined as data and information that can be submitted to the California Environmental Data Exchange Network (CEDEN), unless the data type cannot be accepted by CEDEN. Data types that CEDEN cannot accept can be submitted directly to the State Water Board following a procedure established during the data solicitation process.

The Listing Policy also establishes requirements for data quality, data quantity, and administration of the listing process. Listing and delisting factors 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;

[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.

nutrients; water and sediment toxicity; adverse biological response; degradation of aquatic life populations and communities; trends in water quality; and weight of evidence.

The Listing Policy requires the water quality assessments and listing decisions to be documented in waterbody Fact Sheets. Fact Sheets contain Lines of Evidence (LOEs) for each data type which are used to make listing Decisions for each waterbody-pollutant combination. The Fact Sheets supporting the recommended changes to the 303(d) List in the Central Valley Region are provided in Appendix A.

Integrated Report Cycles

The Integrated Report is released in "cycles" with each cycle occurring every two years, on even numbered years. Each Integrated Report cycle consists primarily of assessments from the three Regional Boards that are "on-cycle" (see Table 1 below). The other six Regional Boards that are "off-cycle" may also assess new high-priority data and make new listing or delisting decisions. Following adoption by the off-cycle Regional Water Board, the new listing/delisting decisions will be transmitted to the State Water Board for approval and inclusion with the statewide on-cycle 2018 303(d) List and Integrated Report. Because the Central Valley Water Board is not on-cycle for the 2018 cycle, it is not preparing a full integrated report but is rather making a small number of changes to the 303(d) List. According to this Integrated Report schedule, the Central Valley Water Board would again be on-cycle to develop and approve its next full Integrated Report in 2020. The last time this region prepared 303(d) listing recommendations for the Central Valley Water Board was for the 2014/2016 Integrated Report.

Table 1: Integrated Report Schedule

Year	Regional Boards
2018	North Coast (Region 1) Lahontan (Region 6) Colorado River Basin (Region 7)
2020	Central Coast (Region 3) **Central Valley (Region 5)** San Diego (Region 9)
2022	San Francisco Bay (Region 2) Los Angeles (Region 4) Santa Ana (Region 8)

Data Solicitation

On November 3, 2016, the State Water Board solicited data from the public with the Notice of Public Solicitation of Water Quality Data and Information for the California Integrated Report sent to interested parties subscribed to the Integrated Report e-mailing list. This Notice listed the types of data that would be accepted and described the procedure for submitting data for consideration for the Integrated Report. For the 2018 Integrated Report cycle, data were required to be submitted via the California Environmental Exchange Data Network (CEDEN), unless as otherwise noted in the solicitation. Data submitted prior to May 3, 2017, were considered for the 2018 cycle.

Data and information used for the Central Valley Water Board's off-cycle assessments were primarily received from the following data sources:

a. Surface Water Ambient Monitoring Program (SWAMP)
b. Irrigated Lands Regulatory Program
c. California Department of Pesticide Regulation
d. 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
e. Other sources of data and information that became readily available to Regional Water Board staff

Data Processing

As noted previously, Regional Water Boards that are off-cycle during each two-year Integrated Report cycle have the discretion to assess new "high-priority" data and make new listing/delisting decisions. For the 2018 303(d) List, we are exercising this discretion to evaluate only those data necessary to make a limited number of 303(d) List revisions.

Assessments of Central Valley Water Board waterbodies during the 2018 Integrated Report cycle were limited to high priority impaired waterbodies currently being addressed by a U.S. EPA approved TMDL or by another approved regulatory program. These assessments were completed to reflect the current status of the impairments being addressed. A full assessment of all readily available data for surface waters in the Central Valley Water Board will be completed during the 2020 Integrated Report cycle.

Data and information were processed and evaluated as required by the Listing Policy. Data were aggregated by waterbody segments and assessments were performed by pollutant on each waterbody segment. Waterbodies were segmented to account for hydrologic features or as described in the Basin Plans. Some waterbodies may have been re-segmented, split into additional segments, or had a modification to the waterbody name since the last 303(d) List was approved.

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.

Water Quality Standards Used in Assessments

As defined in CWA and federal regulations, water quality standards include the designated uses of a water segment, the adopted water quality criteria, and the state's Antidegradation Policy (State Water Resources Control Board (Resolution No. 68-16)). Under State law (Porter-Cologne Water Quality Control Act, California Water Code § 13300 et seq.), water quality standards are beneficial uses of a water segment, the established water quality objectives (both narrative and numeric), and the state's Antidegradation Policy.

Beneficial uses of the Central Valley Water Board waterbodies are identified in Tables 2-1 of the Water Quality Control Plan for the Sacramento River and San Joaquin River Basin and the Water Quality Control Plan for the Tulare Lake Basin (Basin Plans) (CVRWQCB, 2018a, b). If beneficial uses were not identified for a water segment in the Basin Plan, but it is determined

that the use exists in the waterbody, then the waterbody segment was assessed for the existing uses of the water.

Staff assessed data using regulatory limits when available. The most common regulatory limits used include water quality objectives in the Basin Plans or any statewide Water Quality Control Plans applicable to the waterbody, and criteria for toxic chemicals promulgated by the U.S. EPA under the California Toxics Rule (40 C.F.R §131.27). When numeric regulatory limits were not available, evaluation guidelines were used to interpret narrative water quality objectives.

Evaluation guidelines are selected in conformance with section 6.1.3 of the Listing Policy.

Waterbody Fact Sheets

A waterbody Fact Sheet is comprised of Lines of Evidence (LOEs) and beneficial use support decisions based on available water quality data and information collected within the waterbody.

A LOE was developed for each unique combination of a waterbody, pollutant, matrix and fraction. The term “matrix” refers to the sample medium used in an LOE. The “fraction” is the analyzed portion of the sample medium. For example, if the matrix of a sample is water, then the fraction can be either the total constituent or the dissolved ratio of the constituent.

A beneficial use support decision was made for each pollutant based on the available LOEs for that pollutant. Each decision is given a rating of supporting, not supporting or insufficient information based on assessment of beneficial use support. If the number of samples exceeding regulatory limits was greater than the allowable exceedance count, the pollutant combination is rated as not supporting (impaired) and recommended for a 303(d) listing. In each waterbody, data from multiple pollutants may be assessed, resulting in more than one decision.

A Fact Sheet is prepared for each waterbody that summarizes the decisions and supporting LOEs for each waterbody. Figure 1 below illustrates how LOEs and decisions are combined into the waterbody Fact Sheets. Detailed Fact Sheets for all waterbodies assessed for the 2018 Integrated Report are available in Appendix A.

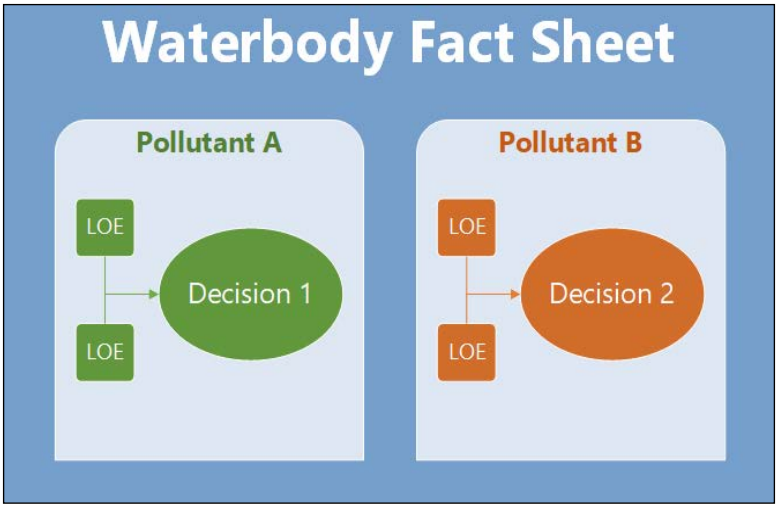

Figure 1: Waterbody Fact Sheets

Potential sources are only identified in Fact Sheets when a specific source analysis has been performed as part of a TMDL or other regulatory process. Otherwise, the potential source was marked “Source Unknown.”

Proposed Changes to the 303(d) List

Under CWA section 303(d), states are required to review, make changes as necessary, and submit to U.S. EPA a list identifying waterbodies not meeting water quality standards and the water quality parameter (i.e., pollutant) not being met. This is referred to as the 303(d) List. The 303(d) List must include a description of the pollutants causing lack of attainment of water quality standards 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 (40 C.F.R. § 130.7(b)(iii)(4)). Federal regulation defines a “water quality limited segment” as “any segment 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 C.F.R. § 130.2(j)). To restore water quality, a TMDL or other planning tool must be developed for water quality limited segments on the 303(d) List.

The 303(d) List includes all waterbody-pollutant combinations that are recommended for listing or delisting based on assessments conducted by Water Board staff. Note that the 303(d) list decisions are made at the pollutant level, and there may be multiple listing decisions within one waterbody.

The following assessments were completed as part of the Central Valley Water Board’s 2018 Integrated Report:

Waterbodies removed from the CWA section 303(d) list of impaired waterbodies due to attainment of water quality standards

Assessment of readily available data indicate that 33 impairments identified on the 2016 303(d) list of impaired waterbodies are now meeting water quality standards. The following waterbody-pollutant combinations are now proposed for removal from the 303(d) list:

Table 1: Proposed waterbody-pollutant combination delistings

Waterbody Segment	Pollutant(s)
Colusa Basin Drain	Carbofuran, malathion
Del Puerto Creek	Diazinon
Delta Waterways (export area)	Chlorpyrifos, diazinon
Dry Creek (tributary to Tuolumne River at Modesto, E Stanislaus County)	Diuron
Duck Slough (Merced County)	Chlorpyrifos
French Camp Slough (confluence of Littlejohns and Lone Tree Creeks to San Joaquin River, San Joaquin Co; partly in Delta Waterways, eastern portion)	Diazinon
Highline Canal (from Mustang Creek to Lateral No 8, Merced and Stanislaus Counties)	Chlorpyrifos, simazine

Waterbody Segment	Pollutant(s)
Ingram Creek (from confluence with Hospital Creek to Hwy 33 crossing)	Simazine
Lone Tree Creek	Diazinon
Merced River, Lower (McSwain Reservoir to San Joaquin River)	Chlorpyrifos
Mokelumne River, Lower (in Delta Waterways, eastern portion)	Chlorpyrifos
Natomas East Main Drainage Canal (aka Steelhead Creek, downstream of confluence with Arcade Creek)	Diazinon
Newman Wasteway	Chlorpyrifos, Simazine
Orestimba Creek (above Kilburn Road)	Diuron
Orestimba Creek (below Kilburn Road)	Diazinon
Ramona Lake	Diuron
San Joaquin River (Mendota Pool to Bear Creek)	Chlorpyrifos
San Joaquin River (Bear Creek to Mud Slough)	Diuron
San Joaquin River (Merced River to Tuolumne River)	Chlorpyrifos
San Joaquin River (Tuolumne River to Stanislaus River)	Chlorpyrifos, Diazinon
San Joaquin River (Stanislaus River to Delta Boundary)	Chlorpyrifos
Sand Creek (tributary to Marsh Creek, Contra Costa County; partly in Delta Waterways, western portion)	Disulfoton

Impairments being addressed by the U.S. EPA approved TMDL pyrethroid pesticides

On 8 June 2017 the Central Valley Water Board adopted a Basin Plan amendment that included a TMDL and control program for pyrethroid pesticides (R5-2017-0057). The amendment was subsequently approved by the State Water Board on 10 July 2018 (Res. 2018-0031) and by U.S. EPA on 22 April 2019.

The following 41 impairments are being addressed by the proposed TMDL for:

Table 2: Impairments being addressed by the Pyrethroid TMDL

Waterbody Segment	Pollutant(s)
Arcade Creek	Pyrethroids
Chicken Ranch Slough	Pyrethroids
Curry Creek (Placer and Sutter Counties)	Pyrethroids
Elder Creek	Pyrethroids
Kaseberg Creek (tributary to Pleasant Grove Creek, Placer County)	Bifenthrin; cyfluthrin; cyhalothrin, lambda; cypermethrin; pyrethroids
Kaseberg Creek, unnamed eastern tributary (from Green Grove Ln to Del Webb Blvd)	Bifenthrin; cyfluthrin; cyhalothrin, lambda; cypermethrin

Waterbody Segment	Pollutant(s)
Kaseberg Creek, unnamed southeastern tributary (from Silverado Middle School to Timber Creek Golf Course, Placer County)	Bifenthrin; cyfluthrin; cyhalothrin, lambda; cypermethrin
Kaseberg Creek, unnamed southern tributary (from Baseline Road to Timber Creek Golf Course, Placer County)	Bifenthrin; cyfluthrin; cyhalothrin, lambda; cypermethrin
Morrison Creek	Pyrethroids
Pleasant Grove Creek	Bifenthrin; cypermethrin; pyrethroids
Pleasant Grove Creek, South Branch	Bifenthrin; cyfluthrin; cypermethrin; pyrethroids
Pleasant Grove Creek, South Branch, unnamed southeastern trib (from east of Sierra View Country Club to confl with Pleasant Grove Cr, South Branch)	Bifenthrin; cyfluthrin; cypermethrin
Pleasant Grove Creek, unnamed northern tributary (from Greywood Circle to confluence with Pleasant Grove Creek)	Bifenthrin; cyfluthrin; cypermethrin
Pleasant Grove Creek, unnamed northern tributary (from Mt Tamalpais Dr to confluence with Pleasant Grove Creek)	Bifenthrin; cyfluthrin; cyhalothrin, lambda; cypermethrin; permethrin, total
Strong Ranch Slough	Pyrethroids

Impairments being addressed by existing pollutant control requirements other than a TMDL

In general, the federal Clean Water Act requires states to establish TMDLs to address pollutant exceedances that result in water quality impairments (e.g., for water-body-pollutant combinations that are on the federal 303(d) List). However, a 2005 U.S. EPA guidance document for the 2006 list assessment recognizes that alternative pollution control requirements may obviate the need for a TMDL for some waterbody segments:

> *"[S]egments are not required to be included on the section 303(d) list if technology-based effluent limitations required by the Act, more stringent effluent limitations required by state, local, or federal authority, or "[o]ther pollution control requirements (e.g., best management practices) required by local, State or Federal authority" are stringent enough to implement applicable water quality standards (see 40 CFR 130.7(b)(1)) within a reasonable period of time. This guidance acknowledges that the most effective method for achieving water quality standards for some water quality impaired segments may be through controls developed and implemented without TMDLs (referred to as a <Category> "4b alternative").*" (U.S. EPA, 2005, page 54)

Because the overriding objective of the Category 4b alternative is to promote implementation activities designed to achieve water quality standards in a reasonable period of time, U.S. EPA evaluates each Category 4b alternative on a case-by-case basis including, in particular, the existence of identifiable consequences for the failure to implement the proposed pollution controls (U.S. EPA, 2005). U.S. EPA expects states to address six elements to demonstrate support for Category 4b designations:

1. A statement of the problem causing the impairment

2. A description of the proposed implementation strategy and supporting pollution controls necessary to achieve water quality standards, including the identification of point and nonpoint source loadings that when implemented assure the attainment of all applicable water quality standards
3. An estimate or projection of the time when water quality standards will be met
4. A reasonable schedule for implementing the necessary pollution controls
5. A description of, and schedule for, monitoring milestones for tracking and reporting progress to U.S. EPA on the implementation of pollution controls
6. A commitment to revise, as necessary, the implementation strategy and corresponding pollution controls if progress towards meeting water quality standards is not being shown.

During the 2018 Integrated Report cycle, assessments have been completed to reflect impairments being addressed by regulatory requirements specified within waste discharge requirements (WDRs) under the Central Valley Water Board's Irrigated Lands Regulatory Program or by a U.S. EPA control program for pyrethroid pesticides (R5-2017-0057). The weight of evidence indicates these waterbodies are not meeting standards; but the impairments are being addressed by an enforceable regulatory program, other than a TMDL, that is reasonably expected to result in attainment of the water quality standards within a reasonable, specified time frame. The fact sheets in Appendix A contain documentation of how existing regulatory requirements address U.S. EPA's six elements for Category 4b designations for each waterbody segment.

The following thirteen impairments are being addressed by regulatory requirements implemented under the Irrigated Lands Regulatory Program (ILRP):

Table 3: Impairments being addressed under ILRP

Waterbody Segment	Pollutant(s)
Del Puerto Creek	Toxicity
Hospital Creek (San Joaquin and Stanislaus Counties)	Toxicity
Ingram Creek (from confluence with Hospital Creek to Hwy 33 crossing)	Toxicity
Los Banos Creek (below Los Banos Reservoir, Merced County)	Toxicity
Mud Slough, North (upstream of San Luis Drain)	Toxicity
Orestimba Creek (above Kilburn Road)	Toxicity
Orestimba Creek (below Kilburn Road)	Toxicity
Poso Slough	Toxicity
Ramona Lake	Toxicity
Salt Slough (Mud Slough to Sand Dam, Merced County)	Toxicity
Salt Slough (upstream from confluence with San Joaquin River)	Toxicity
San Joaquin River (Bear Creek to Mud Slough)	Toxicity
Willow Slough Bypass (Yolo County)	Malathion

The following nine impairments are being addressed by the proposed control program for pyrethroid pesticides:

Table 4: Impairments being addressed under control program for pyrethroid pesticides

Waterbody Segment	Pollutant(s)
Del Puerto Creek	Bifenthrin; cyfluthrin; cyhalothrin, lambda; esfenvalerate/fenvalerate; pyrethroids
Hospital Creek (San Joaquin and Stanislaus Counties)	Pyrethroids
Ingram Creek (from confluence with Hospital Creek to Hwy 33 crossing)	Pyrethroids
Ingram Creek (from confluence with San Joaquin River to confluence with Hospital Creek)	Pyrethroids
Mustang Creek (Merced County)	Cis-permethrin

Table 5 summarizes the Central Valley Water Board's proposed changes to the 303(d) List for the 2018 cycle.

Table 5: Summary of proposed changes to the 303(d) list

Changes in Impairment Status		Removal from 303(d)		
Addressed by a TMDL	**Addressed by an approved regulatory program**	**Addressed by a TMDL**	**Addressed by an approved regulatory program**	**Reason for recovery unknown**
41	22	9	14	5

Additional information, including the rationale for each listing and delisting decision are documented in the Fact Sheets in Appendix A.

Public Review and Board Approval

Pursuant to section 6.2 of the Listing Policy, decisions concerning waterbodies listed in Category[2] 4a, 4b, or 5, require public review and approval by the Regional Water Board during a public Board hearing. They are then submitted to the State Water Board for compiling into the statewide 303(d) List. Once compiled, the California Integrated Report is noticed for additional public review and approval by the State Water Board Executive Director or the State Water Board, as outlined in section 6.3 of the Listing Policy. The 303(d) List of impaired waters will require final approval by the U.S. EPA. If U.S. EPA determines that changes are needed to the submitted report, they will initiate further public review before finalizing and publishing the report.

[2] Category 4a/4b signify that data suggest that at least one designated use is not being supported but that a TMDL is not needed because one has already been approved or established by U.S. EPA (category 4a) or that other required control measures are expected to result in the attainment of an applicable water quality standard in a reasonable period of time (category 4b). Category 5 signifies that at least one designated use is not being supported and that a TMDL is necessary.

References

For a complete list of references (data, QAPPs, evaluation guidelines, etc.) used in all the waterbody Fact Sheets, see Appendix B.

Central Valley Regional Water Quality Control Board (CVRWQCB). 2018a. Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basin. Fifth Edition, revised May 2018.

Central Valley Regional Water Quality Control Board (CVRWQCB). 2018b. Water Quality Control Plan for the Tulare Lake Basin. Third Edition, revised May 2018.

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U.S. EPA. 2005. Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b), and 314 of the Clean Water Act. U.S. EPA. Washington, D.C.

Links to Appendix Webpages

Appendix A: Waterbody Fact Sheets
Available on the Central Valley Water Board's Integrated Report webpage

Appendix B: Reference Report
Available on the Central Valley Water Board's Integrated Report webpage

Appendix C: Response to Comments
Available on the Central Valley Water Board's Integrated Report webpage

Appendix D: Revisions to Draft Staff Report
Available on the Central Valley Water Board's Integrated Report webpage