

LATE REVISIONS – 5 December 2016
Regional Water Quality Control Board, Central Valley Region
Board Meeting – 5/6 December 2016

Item #8: Clean Water Action Sections 305(b) and 303(d) Integrated Report for the Central Valley Region – Board Hearing to Consider a Resolution to Approve the Integrated Report and Revisions to the 303(d) List of Impaired Waters

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REVISIONS TO DRAFT FINAL STAFF REPORT

Deletions in ~~strikeout~~. Additions in **bold underline**.

Page ii (under Executive Summary, Summary of Proposed Updates to the 2012 303(d) List).
Edit text as follows:

The proposed updates for the 303(d) List include:

- New delistings (water bodies meeting standards for previously listed pollutants): **3845**
- Newly identified impairments (303(d) listings) that:
 - Require TMDL development: **257244**
 - Are being addressed by an action other than a TMDL: 24

For comparison, the previous listing process added 389 new 303(d) listings and delisted 23 water body-pollutant combinations, for a total of 707 listings. We are proposing to add **2684** new 303(d) listings and to delist **4538** water body-pollutant combinations, for a total of **93054** listings and net increase of about **325**%. Of these **93054** listings, 152 are already being addressed by either an existing TMDL or another regulatory control program.

The **4538** proposed delistings address the following:

- Pesticides: 24, including diuron (4), chlorpyrifos (6), diazinon (7), dimethoate (7)
- Bacteria: 4

- Metals: 532, including aluminum (1), iron (1), manganese (1), mercury (1) and zinc (1)
- Others: 128, including boron (37), pH (2), electrical conductivity (2), and toxicity (1)

Pages 20-21 (under Summary of Proposed Changes to the 2012 303(d) List). Edit text as follows:

Proposed new listings (impaired/not meeting standards) include:

- List on 303(d) List (TMDL required): 244257

Proposed new delistings from the 2012 303(d) List include water body segment-pollutant combinations where water bodies now meet standards for previously-listed pollutants.

Appendix A identifies 4538 new delistings address the following:

- Pesticides: 24, including diuron (4), chlorpyrifos (6), diazinon (7), and dimethoate (7)
- Bacteria: 4
- Metals: 532, including aluminum (1), iron (1), manganese (1), mercury (1) and zinc (1)
- Others: 128, including boron (37), pH (2), electrical conductivity (2), and toxicity (1)

In summary, the 2012 California 303(d) list identified 707 water body-pollutant impairments in the Central Valley. The updated 2014 assessment proposes adding 2684 new 303(d) listings and delisting 4538 water body-pollutant combinations for a total of 93054 listings. Of these 93054 listings, 152 are being addressed either by an existing TMDL (75) or regulatory control programs (77).

REVISIONS TO DRAFT FINAL STAFF REPORT APPENDIX A: PROPOSED CHANGES TO THE 2012 CENTRAL VALLEY 303(d) LIST

Table 1 in this document provides the late revisions to the table in Appendix A that shows the proposed additions to and deletions from the 303(d) List for the Central Valley Region.

REVISIONS TO DRAFT FINAL STAFF REPORT APPENDIX G: FACT SHEETS

Staff revised numerous fact sheets, as described in the next two sections that identify revisions to Appendices K and L.

REVISIONS TO DRAFT FINAL STAFF REPORT APPENDIX K: RESPONSE TO COMMENTS

Deletions in ~~strikeout~~. Additions in **bold underline**.

Pages K-6 and K-7 (under Introduction). Edit Table K-2 as follows:

Table K-2: Summary of changes to the proposed 303(d) List (Appendix A) and Category Reports (Appendices B through F) made in response to public comments

Commenter and Comment #	Water Body Segment	Constituent	Change Made
Central Valley Clean Water Association Comments 9-11	Delta Waterways (southern portion)	Aluminum, <u>Iron, Manganese</u>	Add comment to 303(d) List and Fact Sheet: Area of impairment is Grant Line Canal, based on available data <u>Removed from the proposed 303(d) List.</u>
<u>Central Valley Clean Water Association Comment 27</u>	<u>Old River (San Joaquin River to Delta-Mendota Canal; in Delta Waterways, southern portion):</u>	<u>Aluminum, Iron, Manganese</u>	<u>Removed from the proposed 303(d) List.</u>

Page K-23 (under Section B.2, William and Mary Crook Family (Crook Family) Letter). Edit staff response to Crook Family Letter Comment 5 as follows:

Crook Family Letter Comment 5:

Specific to the Jawbone unnamed tributary/Bogge Meadow site, the meadow management practice pursued by CSERC with the USFS created an artificial situation that concentrated cattle grazing at the target sample site. CSERC fenced this meadow after gaining agreement from the USFS to use as a control site for cattle grazing. By nature, cattle would circle the meadow looking for access to the meadow grass. It needs to be noted that the vast majority of cattle “grazing” in this range is browsing on brush, particularly Deer Brush (*Ceanothus integrerrimus*.) Under normal conditions, cattle would graze the meadow and then move on. The fenced meadow created the artificial concentration of cattle around the meadow, which logically would result in higher concentrations of fecal matter. This resulted in creating the problem, then taking samples and then declaring that a problem exists.

RESPONSE: Staff of the U.S. Forest Service Stanislaus National Forest submitted comments on the draft Integrated Report and 303(d) List but did not identify this concern. **There is potential that the fenced conditions identified by the commenter may have altered the conditions at the unnamed tributary/Bogge Meadow site; however, staff does not have any specific information on the area fenced, number of cattle contained or overall duration of the management practice study.** The USFS and public will have additional opportunities to provide feedback on Integrated Report and 303(d) List development during the Central Valley Water Board hearing in December 2016, as well as when the State Water Board considers the 2014 303(d) List for approval and when the USEPA Region 9 considers final approval of California’s 303(d) list in 2017. If the USFS staff submits documentation **is submitted** indicating an artificial concentration of cattle was

created for the purpose of research for a limited duration, the information will be evaluated in order to consider excluding the related water quality data from the Integrated Report assessment **when the State Water Board considers the 2014 303(d) List for approval and when the USEPA Region 9 considers final approval of California's 303(d) list in 2017.**

Page K-27 (under Section B.2, United States Forest Service Stanislaus National Forest). Edit staff response to USFS Comment 5 as follows:

USFS SNF Comment 5

USFS staff are unclear as to what criterion was evaluated, and whether this criterion are applied consistently. For example, several of the factsheets list the pollutant as *E. coli*, but show that the Water Quality Objective or Criterion applied was the Basin Plan narrative objective for toxicity ("The narrative toxicity objective states, 'All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life. This objective applies regardless of whether the toxicity is caused by a single substance or the interactive effect of multiple substances.'). Many of the factsheets do not list the evaluation guideline used.

RESPONSE: ~~The narrative toxicity Water Quality Objective in the Basin Plans includes text that provides the link between the narrative objective and the numerical evaluation guideline used for assessing *E. coli* data. The LOEs created by staff did not use the entire text of the lengthy toxicity objective. One sentence in the complete toxicity objective is "Compliance with this objective will be determined by analyses of **indicator organisms** [emphasis added], species diversity, population density, growth anomalies, and biotoxicity tests of appropriate duration or other methods as specified by the Regional Water Board." *E. coli* is one of several organisms (including fecal coliform) that indicate the bacterial condition of a water body. The additional sentence from the narrative toxicity objective could be added to the *E. coli* LOEs to clarify that *E. coli* bacteria data are one surrogate for assessing overall indicator bacteria conditions. **The narrative toxicity objective had been utilized for the evaluation of indicator bacteria. For consistency, all LOEs assessing indicator bacteria are being revised to utilize the narrative Chemical Constituent objective which includes the following statement: "Waters shall not contain chemical constituents in concentrations that adversely affect beneficial uses." The change does not affect any of the listing decisions.**~~

Two numerical evaluation guidelines for *E. coli* concentrations were used to interpret the narrative objective and to numerically assess the *E. coli* concentrations in a water body. The applicable evaluation guideline for a single sample maximum allowable density in freshwater designated beach areas (water contact recreation) is 235 MPN/100ml (USEPA, 1986). The applicable evaluation guideline for the geometrical mean of *E. coli* densities in freshwater (also for water contact recreation) is 126 MPN/100ml (USEPA, 1986¹).

Staff reviewed several dozen *E. coli* LOEs, including many for water bodies in the National Forest, and did not find any that were missing evaluation guideline values or their reference information. It should be noted that the Basin Plan for the Sacramento

¹ USEPA. 1986. Ambient Water Quality for Bacteria-1986. United States Environmental Protection Agency (USEPA) Office of Water Regulations and Standards, Criteria and Standards Division. Washington, D.C. EPA 440/5-84-002.

River and San Joaquin River Basins includes a numerical water quality objective specifically for fecal coliform that is protective of the water contact recreation beneficial use; a numerical water quality objective does not require an interpretative evaluation guideline so the 'Evaluation Guideline' field is blank for LOEs for fecal coliform data.

Page K-39 (under Section C, Central Valley Clean Water Association). Edit staff response to CVCWA Comment 9 as follows:

CVCWA Comment 9:

Delta Waterways (southern portion): Aluminum. Listings were inappropriately based on the use of ambient total recoverable data for aluminum. The proposed impairment listing is based on four of four samples above the California secondary maximum contamination level (MCL) or consumer acceptance level (200 ug/L), which were collected by the City of Tracy for NPDES permit No. CA 0079154 (Order No. R5-2007-0036) in 2007, 2008, 2009, and 2010). The single Line of Evidence (LOE ID: 62742) states that samples were collected from "stations R-6" (i.e., according to the permit, "R-006" is located at Grant Line Canal). Appendix J of the Draft 2014 Integrated Report specifies that this Delta portion includes the San Joaquin River and Old River among others. Additional data within the southern portion of the Delta Waterways should be considered in the evaluation to make a more robust assessment. For instance, monitoring data is collected from water bodies within this area in support of the NPDES program for multiple agencies.

RESPONSE: The reviewer is correct that the total recoverable aluminum concentrations were compared to Title 22 secondary maximum contamination levels (SMCLs). Title 22 does not include direction that samples be filtered prior to analysis **and states that compliance with SMCLs found in Table 64449-A (which includes aluminum, iron and manganese) will be based on a "running annual average of four quarterly samples".** The Basin Plan identifies the numeric SMCLs as the objectives for use in protecting municipal and domestic supply, but is silent on use of filtered samples or appropriate averaging periods. In the absence of such direction the assessments were based on **the more conservative total recoverable concentrations which can identify water bodies that are not impaired but may be overly conservative to identify impairment.** ~~Staff concludes that the assessment of aluminum in *Delta Waterways (southern portion)* was completed correctly.~~ Note, as part of the CVSALTS Program, Central Valley Water Board staff and stakeholders are evaluating potential Basin Plan amendments that include an option for assessing compliance with water quality objectives for aluminum, manganese, and several other constituents from filtered water samples when evaluating source water protection for municipal and domestic supply use. During future Integrated Report cycles, staff will consider any new objectives and assessment methods to select an appropriate criterion and method for the assessment of aluminum.

The commenter is correct in that the data were collected at station R-6 ("R-006") for the City of Tracy NPDES permit No. CA 0079154 and that this location is on Grant Line Canal, a water body within the Delta Waterways (southern portion). Staff has added a comment to the aluminum Fact Sheet (Appendix G of the staff report) and ~~proposed 303(d) List (Appendix A of the staff report)~~ for the Delta Waterways (southern portion) noting that ~~the area of impairment is Grant Line Canal, based on available data~~ **the samples were collected from Grant Line Canal. In addition, 40 CFR Part 122 Appendix D identifies aluminum on its list of "Conventional & Nonconventional Pollutants" and not as a "Toxic Pollutant". Consequently,**

aluminum should have been assessed using Table 3.2 of the Listing Policy rather than Table 3.1. Staff updated the language in the Fact Sheet to reflect Table 3.2. In addition, Table 3.2 states a minimum of five samples is required to list a water body. The Delta Waterways (southern portion) has four samples with four exceedances, and this does not exceed the allowable frequency listed in Table 3.2. As a result, staff changed the listing recommendation to 'Do Not List'.

Staff considered all readily available data for the 2014 Integrated Report. Data submitted to the State Water Board according to their ongoing and future public solicitations for data and information will be considered in future Integrated Report cycles. NPDES data submitted via the CIWQS/eSMR system will be transmitted to the State Water Board automatically. Staff encourages all stakeholders to submit their data with required quality assurance information to the State Water Board for the 2018 Integrated Reporting process as soon as possible. Please see the following website for the recently released Public Data Solicitation Notice and data requirements: http://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/#impaired

Pages K-39 and K-40 (under Section C, Central Valley Clean Water Association). Edit staff response to CVCWA Comments 10 and 11 as follows:

CVCWA Comment 10:

Delta Waterways (southern portion): Iron. Same comment as similar listing above, "Delta Waterways (southern portion)" for Aluminum.

RESPONSE: See staff response to Comment 9. **Staff has changed the listing recommendation to 'Do Not List' due to limited number of samples for a conventional pollutant and conservative use of total concentrations and daily samples.**

CVCWA Comment 11:

Delta Waterways (southern portion): Manganese. Same comment as similar listing above, "Delta Waterways (southern portion)" for Aluminum.

RESPONSE: See staff response to Comment 9. **Staff has changed the listing recommendation to 'Do Not List' due to limited number of samples for a conventional pollutant and conservative use of total concentrations and daily samples.**

Page K-44 (under Section C, Central Valley Clean Water Association). Edit staff response to CVCWA Comment 27 as follows:

CVCWA Comment 27:

Old River (San Joaquin River to Delta-Mendota Canal; in Delta Waterways, southern portion): Aluminum. The conclusion is based on a total number of 16 samples from four monitoring locations along Old River which were collected by the City of Tracy to fulfill requirements of NPDES permit No. CA 0079154 (Order No. R5-2007-0036). Only fourteen samples appear to be included in the Data Reference files. The new proposed Old River listing for Iron includes the following statement, "Samples were collected annually on 12/26/2007, 8/18/2008, 9/8/2009 and 8/3/2010 (except samples were not collected from

stations R-002 and R-005 on 8/3/2010)." The number of exceedances and total samples stated both in the Regional Board Staff conclusion and single Line of Evidence for this listing (i.e., Aluminum) appear to need to be revised. It is important to note that the Listing Policy requires data used in the assessment to be temporally independent and the referenced dataset appears to have been collected during four annual events from 2007 to 2010. Additional data should be considered in the evaluation to make a more robust assessment. For instance, monitoring data is collected by other agencies within this area in support of the NPDES program.

RESPONSE: Staff revised the sample and exceedance counts to fourteen and thirteen, respectively, in LOE 68402 and in Decision 50448. **In addition, 40 CFR Part 122 Appendix D identifies aluminum on its list of “Conventional & Nonconventional Pollutants” and not as a “Toxic Pollutant”. Consequently, aluminum should have been assessed using Table 3.2 of the Listing Policy rather than Table 3.1. Staff updated the language in the Fact Sheet to reflect Table 3.2.** However, the available data supports the recommendation to place *Old River (San Joaquin River to Delta-Mendota Canal; in Delta Waterways, southern portion)* on the 303(d) List for aluminum.

The reviewer is correct that the total recoverable aluminum concentrations were compared to Title 22 secondary maximum contamination levels (SMCLs). Title 22 does not include direction that samples be filtered prior to analysis and states that compliance with SMCLs found in Table 64449-A (which includes aluminum, iron and manganese) will be based on a “running annual average of four quarterly samples”. The Basin Plan identifies the numeric SMCLs as the objectives for use in protecting municipal and domestic supply, but is silent on use of filtered samples or appropriate averaging periods. In the absence of such direction assessments were based on the more conservative total recoverable concentrations which can identify water bodies that are not impaired but may be overly conservative to identify impairment. In addition, as part of the CVSALTS Program, Central Valley Water Board staff and stakeholders are evaluating potential Basin Plan amendments that include an option for assessing compliance with water quality objectives for aluminum, manganese, iron and several other constituents from filtered water samples and clarifying the compliance assessment time period when evaluating source water protection for municipal and domestic supply use. Consequently, when exceedances have been noted using the total recoverable fraction or did not use an annual average, staff has changed the listing recommendation to “Do Not List”. During future Integrated Report cycles, staff will consider any new objectives and assessment methods to select an appropriate criterion and method for the assessment of aluminum and other secondary MCLs.

When preparing the Integrated Report, staff considered all data received during the data solicitation period that ended 30 August 2010. Staff further considered readily available data collected through Water Board programs such as the Surface Water Ambient Monitoring Program and the Central Valley Irrigated Lands Regulatory Program. The data utilized in this assessment meet the Listing Policy requirements for temporal independence, as they were collected over a period of four years, and not at the same location on the same day.

Page K-45 (under Section C, Central Valley Clean Water Association). Edit staff response to CVCWA Comment 28 as follows:

CVCWA Comment 28:

Old River (San Joaquin River to Delta-Mendota Canal; in Delta Waterways, southern portion): Iron. The conclusion is based on a total number of 14 samples from four monitoring locations along Old River which were collected by the City of Tracy to fulfill requirements of NPDES permit No. CA 0079154 (Order No. R5-2007-0036). It is important to note that the Listing Policy requires data used in the assessment to be temporally independent and the referenced dataset appears to have been collected during four annual events from 2007 to 2010. Additional data should be considered in the evaluation to make a more robust assessment. For instance, monitoring data is collected by other agencies within this area in support of the NPDES program.

RESPONSE: See staff response to CVCWA Comment 27 regarding readily available data and temporal independence and assessment of secondary MCLs. Consequently, staff changed the listing recommendation to 'Do Not List'.

Page K-45 (under Section C, Central Valley Clean Water Association). Edit staff response to CVCWA Comment 30 as follows:

CVCWA Comment 30:

Old River (San Joaquin River to Delta-Mendota Canal; in Delta Waterways, southern portion): Manganese. Same comment as similar listing above for iron for the "Old River (San Joaquin River to Delta- Mendota Canal; in Delta Waterways, southern portion)."

RESPONSE: See staff response to CVCWA Comment 27 regarding readily available data and temporal independence and assessment of secondary MCLs. Consequently, staff changed the listing recommendation to 'Do Not List'.

REVISIONS TO DRAFT FINAL STAFF REPORT APPENDIX L: REVISIONS TO THE INTEGRATED REPORT SINCE SEPTEMBER 2016

Table 2 in this document provides the late revisions made to the table in Appendix L that summarizes revisions made to the draft Integrated Report since the release of the draft report in September 2016 for public review.

TABLE 1: LATE REVISIONS TO APPENDIX A

The below table includes late revisions to the table in Appendix A that shows the proposed additions to and deletions from the 303(d) List for the Central Valley Region. Deletions in ~~strikeout~~. Additions in **underline**.

Water Body / Pollutant	No Change from 2012 List:		New Listings:		Change from "TMDL Required" to:		New Delistings:	
	TMDL Required	Addressed by USEPA-Approved TMDL	TMDL Required	Addressed by Other Action	Addressed by USEPA-Approved TMDL	Addressed by Other Action	Delist from "303(d) list (TMDL required list)" Category	Delist from "303(d) list (being addressed by USEPA approved TMDL" Category
TOTAL:	5421	54	<u>2586</u>	24	21	53	334	5
Garson Creek (from WWTP to Deer Creek)								
Aluminum	X						X	
Manganese	X							
Cantua Creek								
Boron			X					
Deer Creek (Sacramento County)								
Iron	X							
Delta Waterways (southern portion)								
Aluminum ^(a)			X					
Iron			X					
Manganese			X					
Kentucky Creek (Nevada County)								
Iron			X					
Knights Landing Ridge Cut (Yolo County)								
Boron	X							
Los Banos Creek (below Los Banos Reservoir, Merced County)								
Boron	X							
Los Gatos Creek (Fresno County)								
Boron			X					
Newman Wasteway								
Boron	X							
Old River (San Joaquin River to Delta-Mendota Canal; in Delta Waterways, southern portion)								
Aluminum			X					
Iron			X					
Manganese			X					
Oregon Creek (Yuba and Sierra Counties)								
Iron			X					
Pleasant Grove Creek								
Oxygen, Dissolved ^(a)	X							
Putah Creek (Solano Lake to Putah Creek Sinks; partly in Delta Waterways, northwestern portion)								
Boron	X							

Water Body / Pollutant	No Change from 2012 List:		New Listings:		Change from "TMDL Required" to:		New Delistings:	
	TMDL Required	Addressed by USEPA-Approved TMDL	TMDL Required	Addressed by Other Action	Addressed by USEPA-Approved TMDL	Addressed by Other Action	Delist from "303(d) list (TMDL required list)" Category	Delist from "303(d) list (being addressed by USEPA approved TMDL" Category
Scotchman Creek (Nevada County)								
Iron			X					
Spring Creek (Nevada County)								
Iron			X					
Yuba River, South Fork (Spaulding Reservoir to Englebright Reservoir)								
Iron			X					

(a) ~~Aluminum in Delta Waterways (southern portion): The area of aluminum impairment is Grant Line Canal, based on available data.~~

(~~ba~~) Dissolved oxygen in Pleasant Grove Creek: This listing is for Pleasant Grove Creek upstream of Fiddymment Road.

(~~eb~~) Pyrethroids in Pleasant Grove Creek: This listing is for Pleasant Grove Creek upstream of Fiddymment Road.

TABLE 2: LATE REVISIONS TO APPENDIX L

The below table shows late revisions to the table in Appendix L that summarizes revisions made to the draft Integrated Report since the release of the draft report in September 2016 for public review. Deletions in ~~strikeout~~. Additions in **bold underline**.

Water Body Segment	Pollutant	Decision #	LOE #	Revision made in response to:	Revision	Staff report section where revision was made	Revision made to 303(d) List since September 2016 draft report?
<u>Cantua Creek</u>	<u>Boron</u>	<u>55205</u>		<u>Central Valley Water Board Staff Internal Quality Control</u>	<u>40 CFR Part 122 Appendix D identifies boron on its list of “Conventional & Nonconventional Pollutants” and not as a “Toxic Pollutant”. Consequently, boron should have been assessed using Table 3.2 of the Listing Policy rather than Table 3.1. Staff updated the language in the Fact Sheet to reflect Table 3.2. In addition, Table 3.2 states a minimum of five exceedances is required to list a water body. Cantua Creek has seven samples with three exceedances, and this does not exceed the allowable frequency listed in Table 3.2. As a result, staff changed the listing recommendation to ‘Do Not List’.</u>	<u>Appendices A & G</u>	<u>Yes</u>
<u>Carson Creek (from WWTP to Deer Creek)</u>	<u>Aluminum, Manganese</u>	<u>44575, 33274</u>		<u>Central Valley Water Board Staff Internal Quality Control</u>	<u>Carson Creek (from WWTP to Deer Creek) was listed for aluminum and manganese by the 2012 Integrated Report based on Table 3.1 in the Listing Policy. However, 40 CFR Part 122 Appendix D identifies aluminum and manganese on its list of “Conventional & Nonconventional Pollutants” and not as a “Toxic Pollutant”. Consequently, aluminum and manganese should have been assessed using Table 3.2 of the Listing Policy rather than Table 3.1. Staff updated the language in the Fact Sheets to reflect Table 3.2. In addition, Table 3.2 states a minimum of five exceedances is required to list a water body. Two of 11 aluminum samples, and 3 of 4 manganese samples for Carson Creek exceed the secondary MCL, and these do not exceed the allowable frequency listed in Table 3.2. As a result, staff changed the listing recommendations to ‘Delist’ for aluminum and manganese.</u>	<u>Appendices A & G</u>	<u>Yes</u>

Water Body Segment	Pollutant	Decision #	LOE #	Revision made in response to:	Revision	Staff report section where revision was made	Revision made to 303(d) List since September 2016 draft report?
<u>Deer Creek (Sacramento County)</u>	<u>Iron</u>	<u>39792</u>		<u>CVCWA Comments 9-11 & Central Valley Water Board Staff Internal Quality Control</u>	<u>40 CFR Part 122 Appendix D identifies aluminum on its list of “Conventional & Nonconventional Pollutants” and not as a “Toxic Pollutant”. Consequently, aluminum should have been assessed using Table 3.2 of the Listing Policy rather than Table 3.1. Staff updated the language in the Fact Sheet to reflect Table 3.2. In addition, while all initial secondary MCL assessments were based on more conservative total recoverable values and daily samples, Title 22 is silent on whether to utilize total or dissolved concentrations or the time period for assessment. CV-SALTS is currently proposing guidance for the use of secondary MCLs in source water evaluation. As a result, staff changed the listing recommendation to ‘Delist’.</u>		
Delta Waterways (southern portion)	Aluminum, <u>Iron</u> , <u>Manganese</u>	60683, <u>49278</u> , <u>60684</u>		CVCWA Comments <u>9-11</u>	Staff added a comment to the aluminum Fact Sheet and proposed 303(d) List for the Delta Waterways (southern portion) noting that <u>the samples were collected from Grant Line Canal</u> . the area of impairment is Grant Line Canal, based on available data. <u>In addition, 40 CFR Part 122 Appendix D identifies aluminum on its list of “Conventional & Nonconventional Pollutants” and not as a “Toxic Pollutant”. Consequently, aluminum, iron and manganese should have been assessed using Table 3.2 of the Listing Policy rather than Table 3.1. Staff updated the language in the Fact Sheets to reflect Table 3.2. In addition, Table 3.2 states a minimum of five exceedances is required to list a water body. The Delta Waterways (southern portion) has four samples with four exceedances each for aluminum, iron and manganese, and these does not exceed the allowable frequency listed in Table 3.2. As a result, staff changed the listing recommendations to ‘Do Not List’.</u>	Appendix <u>ices</u> <u>A & G</u>	Yes
<u>Kentucky Creek (Nevada County)</u>	<u>Iron</u>	<u>54617</u>		<u>Central Valley Water Board Staff Internal Quality Control</u>	<u>40 CFR Part 122 Appendix D identifies iron on its list of “Conventional & Nonconventional Pollutants” and not as a “Toxic Pollutant”. Consequently, iron should have been assessed using Table 3.2 of the Listing Policy rather than Table 3.1. Staff updated the language in the Fact Sheet to reflect Table 3.2. In addition, Table 3.2 states a minimum</u>	<u>Appendices A & G</u>	<u>Yes</u>

Water Body Segment	Pollutant	Decision #	LOE #	Revision made in response to:	Revision	Staff report section where revision was made	Revision made to 303(d) List since September 2016 draft report?
					<u>of five exceedances is required to list a water body. Kentucky Creek has two samples with two exceedances, and this does not exceed the allowable frequency listed in Table 3.2. As a result, staff changed the listing recommendation to 'Do Not List'.</u>		
<u>Knights Landing Ridge Cut (Yolo County)</u>	<u>Boron</u>	<u>40762</u>		<u>Central Valley Water Board Staff Internal Quality Control</u>	<u>40 CFR Part 122 Appendix D identifies boron on its list of "Conventional & Nonconventional Pollutants" and not as a "Toxic Pollutant". Consequently, boron should have been assessed using Table 3.2 of the Listing Policy rather than Table 3.1. Staff updated the language in the Fact Sheet to reflect Table 3.2. In addition, Table 3.2 states a minimum of five exceedances is required to list a water body. Knights Landing Ridge Cut has six samples with four exceedances, and this does not exceed the allowable frequency listed in Table 3.2. As a result, staff changed the listing recommendation to 'Delist'.</u>	<u>Appendices A & G</u>	<u>Yes</u>
<u>Los Banos Creek (below Los Banos Reservoir, Merced County)</u>	<u>Boron</u>	<u>39208</u>		<u>Central Valley Water Board Staff Internal Quality Control</u>	<u>40 CFR Part 122 Appendix D identifies boron on its list of "Conventional & Nonconventional Pollutants" and not as a "Toxic Pollutant". Consequently, boron should have been assessed using Table 3.2 of the Listing Policy rather than Table 3.1. Staff updated the language in the Fact Sheet to reflect Table 3.2. In addition, Table 3.2 states a minimum of five exceedances is required to list a water body. Los Banos Creek has four samples with two exceedances, and this does not exceed the allowable frequency listed in Table 3.2. As a result, staff changed the listing recommendation to 'Delist'.</u>	<u>Appendices A & G</u>	<u>Yes</u>
<u>Los Gatos Creek (Fresno County)</u>	<u>Boron</u>	<u>58337</u>		<u>Central Valley Water Board Staff Internal Quality Control</u>	<u>40 CFR Part 122 Appendix D identifies boron on its list of "Conventional & Nonconventional Pollutants" and not as a "Toxic Pollutant". Consequently, boron should have been assessed using Table 3.2 of the Listing Policy rather than Table 3.1. Staff updated the language in the Fact Sheet to reflect Table 3.2. In addition, Table 3.2 states a minimum of five exceedances is required to list a water body. Los Gatos Creek has six samples with two exceedances, and this does not exceed the allowable frequency listed in</u>	<u>Appendices A & G</u>	<u>Yes</u>

Water Body Segment	Pollutant	Decision #	LOE #	Revision made in response to:	Revision	Staff report section where revision was made	Revision made to 303(d) List since September 2016 draft report?
					<u>Table 3.2. As a result, staff changed the listing recommendation to 'Do Not List'.</u>		
<u>Newman Wasteway</u>	<u>Boron</u>	<u>39562</u>			<u>40 CFR Part 122 Appendix D identifies boron on its list of "Conventional & Nonconventional Pollutants" and not as a "Toxic Pollutant". Consequently, boron should have been assessed using Table 3.2 of the Listing Policy rather than Table 3.1. Staff updated the language in the Fact Sheet to reflect Table 3.2. In addition, Table 3.2 states a minimum of five exceedances is required to list a water body. Newman Wasteway has four samples with two exceedances, and this does not exceed the allowable frequency listed in Table 3.2. As a result, staff changed the listing recommendation to 'Delist'.</u>	<u>Appendices A & G</u>	<u>Yes</u>
Old River (San Joaquin River to Delta-Mendota Canal; in Delta Waterways, southern portion)	<u>Aluminum, Iron, Manganese</u>	<u>50448</u>		CVCWA Comments <u>27, 28, 30</u>	Staff revised the sample and exceedance counts to fourteen and thirteen, respectively, in LOE 68402 and in Decision 50448 <u>for aluminum</u> . The available data still support the recommendation to place Old River (San Joaquin River to Delta-Mendota Canal; in Delta Waterways, southern portion) on the 303(d) List for aluminum. <u>In addition, 40 CFR Part 122 Appendix D identifies aluminum on its list of "Conventional & Nonconventional Pollutants" and not as a "Toxic Pollutant". Consequently, aluminum, iron and manganese should have been assessed using Table 3.2 of the Listing Policy rather than Table 3.1. Staff updated the language in the Fact Sheets to reflect Table 3.2. Finally, while all initial secondary MCL assessments were based on more conservative total recoverable values and daily samples, Title 22 is silent on whether to utilize total or dissolved concentrations or the time period for assessment. CV-SALTS is currently proposing guidance for the use of secondary MCLs in source water evaluation. As a result, staff changed the listing recommendations to 'Do Not List'.</u>	<u>Appendixices A & G</u>	<u>Yes-Ne</u>
<u>Oregon Creek (Yuba and Sierra Counties)</u>	<u>Iron</u>	<u>54174</u>		<u>Central Valley Water Board Staff</u>	<u>40 CFR Part 122 Appendix D identifies iron on its list of "Conventional & Nonconventional Pollutants" and not as a "Toxic Pollutant". Consequently, iron should have been</u>	<u>Appendices A & G</u>	<u>Yes</u>

Water Body Segment	Pollutant	Decision #	LOE #	Revision made in response to:	Revision	Staff report section where revision was made	Revision made to 303(d) List since September 2016 draft report?
				<u>Internal Quality Control</u>	<u>assessed using Table 3.2 of the Listing Policy rather than Table 3.1. Staff updated the language in the Fact Sheet to reflect Table 3.2. In addition, Table 3.2 states a minimum of five exceedances is required to list a water body. Oregon Creek has 12 samples with 2 exceedances, and this does not exceed the allowable frequency listed in Table 3.2. As a result, staff changed the listing recommendation to 'Do Not List'.</u>		
<u>Putah Creek (Solano Lake to Putah Creek Sinks; partly in Delta Waterways, northwestern portion)</u>	<u>Boron</u>	<u>39326</u>		<u>Central Valley Water Board Staff Internal Quality Control</u>	<u>40 CFR Part 122 Appendix D identifies boron on its list of "Conventional & Nonconventional Pollutants" and not as a "Toxic Pollutant". Consequently, boron should have been assessed using Table 3.2 of the Listing Policy rather than Table 3.1. Staff updated the language in the Fact Sheet to reflect Table 3.2. In addition, Table 3.2 states a minimum of five exceedances is required to list a water body. Putah Creek has 6 samples with 2 exceedances, and this does not exceed the allowable frequency listed in Table 3.2. As a result, staff changed the listing recommendation to 'Delist'.</u>	<u>Appendices A & G</u>	<u>Yes</u>
<u>Sacramento River (Cottonwood Creek to Red Bluff)</u>	<u>Temperature</u>	<u>57656</u>	<u>69509</u>	<u>USEPA Comments</u> ^(a)	<u>The draft public-review version of this LOE and decision used an incorrect evaluation guideline for assessing the temperature data. The decision was revised using the appropriate water body-specific water quality objective in the Sacramento River and San Joaquin River Basin Plan to assess the available water temperature data. The revised version changed the total number of exceedances from 0 (of 1 sample) to 1 (of 1 sample). This change had no effect on staff's recommendation of 'Do Not List'.</u>	<u>Appendix G</u>	<u>No</u>
<u>Sacramento River (Knights Landing to the Delta)</u>	<u>Temperature</u>	<u>57832</u>	<u>69701, 69702</u>	<u>USEPA Comments</u> ^(a)	<u>The draft public-review, version of this LOE and decision used an incorrect evaluation guideline for assessing the temperature data. The decision was revised using the appropriate water body-specific water quality objective in the Sacramento River and San Joaquin River Basin Plan to assess the available water temperature data. The revised version changed the total number of exceedances from 6 (of 31 samples) to 21 (of 31 samples). This change had no</u>	<u>Appendix G</u>	<u>No</u>

Water Body Segment	Pollutant	Decision #	LOE #	Revision made in response to:	Revision	Staff report section where revision was made	Revision made to 303(d) List since September 2016 draft report?
					<u>effect on staff's recommendation of 'Do Not List'.</u>		
<u>Sacramento River (Red Bluff to Knights Landing)</u>	<u>Temperature</u>	<u>57670</u>	<u>69613, 69614</u>	<u>USEPA Comments^(a)</u>	<u>The draft public-review version of this LOE and decision used an incorrect evaluation guideline for assessing the temperature data. The decision was revised using the appropriate water body-specific water quality objective in the Sacramento River and San Joaquin River Basins Basin Plan to assess the available water temperature data. The revised version did not change the total number of exceedances (1 exceedance of 3 samples). This change had no effect on staff's recommendation of 'do not list'.</u>	<u>Appendix G</u>	<u>No</u>
<u>Scotchman Creek (Nevada County)</u>	<u>Iron</u>	<u>53986</u>		<u>Central Valley Water Board Staff Internal Quality Control</u>	<u>40 CFR Part 122 Appendix D identifies iron on its list of "Conventional & Nonconventional Pollutants" and not as a "Toxic Pollutant". Consequently, iron should have been assessed using Table 3.2 of the Listing Policy rather than Table 3.1. Staff updated the language in the Fact Sheet to reflect Table 3.2. In addition, Table 3.2 states a minimum of five exceedances is required to list a water body. Scotchman Creek has 11 samples with 2 exceedances, and this does not exceed the allowable frequency listed in Table 3.2. As a result, staff changed the listing recommendation to 'Do Not List'.</u>	<u>Appendices A & G</u>	<u>Yes</u>
<u>Spring Creek (Nevada County)</u>	<u>Iron</u>	<u>54702</u>		<u>Central Valley Water Board Staff Internal Quality Control</u>	<u>40 CFR Part 122 Appendix D identifies iron on its list of "Conventional & Nonconventional Pollutants" and not as a "Toxic Pollutant". Consequently, iron should have been assessed using Table 3.2 of the Listing Policy rather than Table 3.1. Staff updated the language in the Fact Sheet to reflect Table 3.2. In addition, Table 3.2 states a minimum of five exceedances is required to list a water body. Spring Creek has 15 samples with 2 exceedances, and this does not exceed the allowable frequency listed in Table 3.2. As a result, staff changed the listing recommendation to 'Do Not List'.</u>	<u>Appendices A & G</u>	<u>Yes</u>
<u>Yuba River, South Fork (Spaulding Reservoir to Englebright)</u>	<u>Iron</u>	<u>60690</u>		<u>Central Valley Water Board Staff Internal</u>	<u>40 CFR Part 122 Appendix D identifies iron on its list of "Conventional & Nonconventional Pollutants" and not as a "Toxic Pollutant". Consequently, iron should have been assessed using Table 3.2 of the Listing Policy rather than</u>	<u>Appendices A & G</u>	<u>Yes</u>

Water Body Segment	Pollutant	Decision #	LOE #	Revision made in response to:	Revision	Staff report section where revision was made	Revision made to 303(d) List since September 2016 draft report?
<u>Reservoir)</u>				<u>Quality Control</u>	<u>Table 3.1. Staff updated the language in the Fact Sheet to reflect Table 3.2. In addition, Table 3.2 states a minimum of five exceedances is required to list a water body. Yuba River has 20 samples with 3 exceedances, and this does not exceed the allowable frequency listed in Table 3.2. As a result, staff changed the listing recommendation to 'Do Not List'.</u>		
<u>Multiple</u>	<u>E. coli</u>	<u>Multiple</u>	<u>Multiple</u>	<u>Central Valley Water Board Staff Internal Quality Control</u>	<u>For all E. coli LOEs, staff will replace the narrative toxicity objective with the narrative chemical constituents objective. This change had no effect on listing recommendations.</u>	<u>Appendix G</u>	<u>No</u>

^{a)} The U.S. Environmental Protection Agency (USEPA) submitted written comments on 3 November 2016, after the formal public comment period closed, and consequently were not included in Appendix K: Response to Comments. The Central Valley Water Board Chair admitted the comments to the record and the Central Valley Water Board staff provided responses to the comments during the 5 December 2016 Board Hearing.