

Draft California 2010 Integrated Report(303(d) List/305(b) Report)

Supporting Information

Regional Board 5 - Central Valley Region

Water Body Name: [Sacramento River \(Keswick Dam to Cottonwood Creek\)](#)
Water Body ID: CAR5081000019990126144739
Water Body Type: River & Stream

DECISION ID 4125 **Region 5**

Pollutant: Cadmium
Final Listing Decision: Delist from 303(d) list (being addressed by USEPA approved TMDL)
Last Listing Cycle's Final Listing Decision: List on 303(d) list (being addressed by USEPA approved TMDL)(2006)
Revision Status Revised
Reason for Delisting: State determines water quality standard is being met
TMDL Name: Sacramento Watershed Modeling
TMDL Project Code: 603
Date TMDL Approved by USEPA: 01/01/2002
Impairment from Pollutant or Pollution: Pollutant

Conclusion: This pollutant is being considered for removal from the section 303(d) list under section 4.1 of the Listing Policy. Under this section a single line of evidence is necessary to assess listing status.

One lines of evidence are available in the administrative record to assess this pollutant. None of samples exceeded the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification for removing this water segment-pollutant combination from the section 303(d) list.

This conclusion is based on the staff findings that:

1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. None of 31 samples exceeded the chronic or acute criteria and this does not exceed the allowable frequency listed in Table 4.1 of the Listing Policy.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

RWQCB Board Staff Recommendation: After review of the available data and information, RWQCB staff concludes that the water body-pollutant combination should be removed from the section 303(d) list because applicable water quality standards for the pollutant are not being exceeded.

SWRCB Board Staff Recommendation: After review of this Regional Board decision, SWRCB staff recommend the decision be approved by the State Board.

USEPA Decision:

Line of Evidence (LOE) for Decision ID 4125, Cadmium Sacramento River (Keswick Dam to Cottonwood Creek) Region 5

LOE ID: 22838

Pollutant: Cadmium
LOE Subgroup: Pollutant-Water
Matrix: Water
Fraction: Dissolved

Beneficial Use: Cold Freshwater Habitat
Aquatic Life Use: Cold Freshwater Habitat

Number of Samples: 31
Number of Exceedances: 0

Data and Information Type: PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality: Thirty-one samples were taken from the Sacramento River at Calwell Park after the completion of the Slickrock Creek Dam. Zero exceedances of the acute or chronic WQO were observed.

Data Reference: [Sacramento River Water Sampling Data for 303\(d\) Listing/Delisting Process. Letter W-101-200-000 and data files](#)

Water Quality Objective/Criterion: California Toxics Rule Criteria (USEPA, 2000) - Freshwater Aquatic Life Protection Continuous Concentration (4-day Average) calculated based on the following formula $e^{(0.7852 \cdot \ln(\text{hardness}) - 2.715)} \cdot (1.101672 - (\ln(\text{hardness}) \cdot 0.041838))$ which incorporates hardness. Basin Plan (CVRWQCB, 2007) - Maximum Contaminant Level Acute WQO based on the following formula $e^{((1.160) \cdot (\ln(\text{hardness}) - 5.777))}$ which incorporates hardness.

Objective/Criterion Reference: [Water Quality Standards 2000. Establishment of numeric criteria for priority toxic pollutants for the State of California: Rules and regulations. Federal Register Vol. 65, No. 97. Washington, D.C.: Environmental Protection Agency](#)
[Central Valley Regional Water Quality Control Board. Water Quality Control Plan \(Basin Plan\) for the California Regional Water Quality Control Board - Central Valley Region](#)

Evaluation Guideline:
Guideline Reference:

Spatial Representation: Samples were collected in one location at the Caldwell Park Boat Ramp on the Sacramento River between Keswick Dam and Cottonwood Creek.

Temporal Representation: Samples were collected monthly from June 2004 to December 2006.

Environmental Conditions:

QAPP Information: Frontier Geosciences; Data quality requirements acceptable. City of Redding monitoring QAP (Redding, 2007)

QAPP Information Reference(s):

Line of Evidence (LOE) for Decision ID 4125, Cadmium Sacramento River (Keswick Dam to Cottonwood Creek) Region 5

LOE ID: 2583

Pollutant: Cadmium

LOE Subgroup: Pollutant-Sediment

Matrix: Sediment

Fraction: Not Recorded

Beneficial Use: Warm Freshwater Habitat

Number of Samples: 0

Number of Exceedances: 0

Data and Information Type: Not Specified

Data Used to Assess Water Quality: Unspecified--This LOE is a placeholder to support a 303(d) listing decision made prior to 2006.

Data Reference: [Placeholder reference 2006 303\(d\)](#)

Water Quality Objective/Criterion: Objective/Criterion Reference:

Evaluation Guideline: Guideline Reference:

Spatial Representation:

Temporal Representation:

Environmental Conditions:

QAPP Information: QA Info Missing

QAPP Information Reference(s):

DECISION ID 4124 Region 5

Pollutant: Copper

Final Listing Decision: Delist from 303(d) list (being addressed by USEPA approved TMDL)

Last Listing Cycle's Final Listing Decision: List on 303(d) list (being addressed by USEPA approved TMDL)(2006)

Revision Status: Revised

Reason for Delisting: State determines water quality standard is being met

TMDL Name: Sacramento Watershed Modeling

TMDL Project Code: 603
Date TMDL Approved by USEPA: 01/01/2002
Impairment from Pollutant or Pollution: Pollutant

Conclusion: This pollutant is being considered for removal from the section 303(d) list under section 4.1 of the Listing Policy. Under this section a single line of evidence is necessary to assess listing status.

One lines of evidence are available in the administrative record to assess this pollutant. None of samples exceeded the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification for removing this water segment-pollutant combination from the section 303(d) list.

This conclusion is based on the staff findings that:

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2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
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SWRCB Board Staff Recommendation: After review of this Regional Board decision, SWRCB staff recommend the decision be approved by the State Board.

USEPA Decision:

Line of Evidence (LOE) for Decision ID 4124, Copper Sacramento River (Keswick Dam to Cottonwood Creek) Region 5

LOE ID: 2582
Pollutant: Copper
LOE Subgroup: Pollutant-Water
Matrix: Water
Fraction: Total Dissolved
Beneficial Use: Warm Freshwater Habitat
Aquatic Life Use: Wildlife Habitat
Number of Samples: 0

Number of Exceedances: 0

Data and Information Type: Not Specified

Data Used to Assess Water Quality: Unspecified--This LOE is a placeholder to support a 303(d) listing decision made prior to 2006.

Data Reference: [Placeholder reference 2006 303\(d\)](#)

Water Quality Objective/Criterion:
Objective/Criterion Reference:

Evaluation Guideline:
Guideline Reference:

Spatial Representation:
Temporal Representation:
Environmental Conditions:
QAPP Information: QA Info Missing
QAPP Information Reference(s):

**Line of Evidence (LOE) for Decision ID 4124, Copper
Sacramento River (Keswick Dam to Cottonwood Creek)**

Region 5

LOE ID: 22839

Pollutant: Copper
LOE Subgroup: Pollutant-Water
Matrix: Water
Fraction: Dissolved

Beneficial Use: Cold Freshwater Habitat
Aquatic Life Use: Cold Freshwater Habitat

Number of Samples: 31
Number of Exceedances: 0

Data and Information Type: PHYSICAL/CHEMICAL MONITORING

Data Used to Assess Water Quality: Thirty-one samples were taken from the Sacramento River at Calwell Park after the completion of the Slickrock Creek Dam. Zero exceedances of the acute or chronic WQO were observed.

Data Reference: [Sacramento River Water Sampling Data for 303\(d\) Listing/Delisting Process. Letter W-101-200-000 and data files](#)

Water Quality Objective/Criterion: California Toxics Rule Criteria (USEPA, 2000) - Freshwater Aquatic Life Protection Continuous Concentration (4-day Average) calculated based on the following formula $e^{(0.8545 \cdot \ln(\text{hardness}) - 1.702)} \times (0.96)$ which incorporates hardness. Basin Plan (CVRWQCB, 2007) - Maximum Contaminant Level Acute WQO based on the following formula $e^{((0.905) \times (\ln(\text{hardness}) - 1.612))}$ which incorporates hardness.

Objective/Criterion Reference: [Water Quality Standards 2000. Establishment of numeric criteria for priority toxic pollutants for the State of California: Rules and regulations. Federal Register Vol. 65, No. 97. Washington, D.C.: Environmental Protection Agency](#)

Central Valley Regional Water Quality Control Board. Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board - Central Valley Region

Evaluation Guideline:
Guideline Reference:

Spatial Representation: Samples were collected in one location at the Caldwell Park Boat Ramp on the Sacramento River between Keswick Dam and Cottonwood Creek.

Temporal Representation: Samples were collected monthly from June 2004 to December 2006.

Environmental Conditions:

QAPP Information: Frontier Geosciences; Data quality requirements acceptable. City of Redding monitoring QAP (Redding, 2007)

QAPP Information Reference(s):

DECISION ID 4070 **Region 5**

Pollutant: Zinc
Final Listing Decision: Delist from 303(d) list (being addressed by USEPA approved TMDL)
Last Listing Cycle's Final Listing Decision: List on 303(d) list (being addressed by USEPA approved TMDL)(2006)
Revision Status Revised
Reason for Delisting: State determines water quality standard is being met
TMDL Name: Sacramento Watershed Modeling
TMDL Project Code: 603
Date TMDL Approved by USEPA: 01/01/2002
Impairment from Pollutant or Pollution: Pollutant

Conclusion: This pollutant is being considered for removal from the section 303(d) list under section 4.1 of the Listing Policy. Under this section a single line of evidence is necessary to assess listing status.

One lines of evidence are available in the administrative record to assess this pollutant. None of samples exceeded the water quality objective.

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3. None of 31 samples exceeded the chronic or acute criteria and this does not exceed the allowable frequency listed in Table 4.1 of the Listing Policy.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and

information are available indicating that standards are not met.

RWQCB Board Staff Recommendation: After review of the available data and information, RWQCB staff concludes that the water body-pollutant combination should be removed from the section 303(d) list because applicable water quality standards for the pollutant are not being exceeded.

SWRCB Board Staff Recommendation: After review of this Regional Board decision, SWRCB staff recommend the decision be approved by the State Board.

USEPA Decision:

Line of Evidence (LOE) for Decision ID 4070, Zinc Sacramento River (Keswick Dam to Cottonwood Creek) Region 5

LOE ID: 2584

Pollutant: Zinc
LOE Subgroup: Pollutant-Water
Matrix: Water
Fraction: Total Dissolved

Beneficial Use: Warm Freshwater Habitat

Number of Samples: 0
Number of Exceedances: 0

Data and Information Type: Not Specified
Data Used to Assess Water Quality: Unspecified--This LOE is a placeholder to support a 303(d) listing decision made prior to 2006.
Data Reference: [Placeholder reference 2006 303\(d\)](#)

Water Quality Objective/Criterion:
Objective/Criterion Reference:

Evaluation Guideline:
Guideline Reference:

Spatial Representation:
Temporal Representation:
Environmental Conditions:
QAPP Information: QA Info Missing
QAPP Information Reference(s):

Line of Evidence (LOE) for Decision ID 4070, Zinc Sacramento River (Keswick Dam to Cottonwood Creek) Region 5

LOE ID: 22840

Pollutant: Zinc
LOE Subgroup: Pollutant-Water

Matrix:	Water
Fraction:	Dissolved
Beneficial Use:	Cold Freshwater Habitat
Aquatic Life Use:	Cold Freshwater Habitat
Number of Samples:	31
Number of Exceedances:	0
Data and Information Type:	PHYSICAL/CHEMICAL MONITORING
Data Used to Assess Water Quality:	Thirty-one samples were taken from the Sacramento River at Calwell Park after the completion of the Slickrock Creek Dam. Zero exceedances of the acute or chronic WQO were observed.
Data Reference:	Sacramento River Water Sampling Data for 303(d) Listing/Delisting Process. Letter W-101-200-000 and data files
Water Quality Objective/Criterion:	California Toxics Rule Criteria (USEPA, 2000) - Freshwater Aquatic Life Protection Continuous Concentration (4-day Average) calculated based on the following formula $e^{(0.8473 \cdot \ln(\text{hardness}) + 0.884)} \times (0.986)$ which incorporates hardness. Basin Plan (CVRWQCB, 2007) - Maximum Contaminant Level Acute WQO based on the following formula $e^{((0.830) \times (\ln(\text{hardness}) - 0.289))}$ which incorporates hardness.
Objective/Criterion Reference:	Water Quality Standards 2000. Establishment of numeric criteria for priority toxic pollutants for the State of California: Rules and regulations. Federal Register Vol. 65, No. 97. Washington, D.C.: Environmental Protection Agency Central Valley Regional Water Quality Control Board. Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board - Central Valley Region
Evaluation Guideline:	
Guideline Reference:	
Spatial Representation:	Samples were collected in one location at the Caldwell Park Boat Ramp on the Sacramento River between Keswick Dam and Cottonwood Creek.
Temporal Representation:	Samples were collected monthly from June 2004 to December 2006.
Environmental Conditions:	
QAPP Information:	Frontier Geosciences; Data quality requirements acceptable. City of Redding monitoring QAP (Redding, 2007)
QAPP Information Reference(s):	