

Staff Report

Evaluation of Data and Information Related to the Clean Water Act Section 303(d) List of Water Quality Limited Segments

Water Body Fact Sheets Supporting
“Do Not Delist” Recommendations



State Water Resources Control Board
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

Division of Water Quality

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DRAFT

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STATE WATER RESOURCES CONTROL BOARD
DIVISION OF WATER QUALITY

STAFF REPORT

EVALUATION OF DATA AND INFORMATION RELATED
TO THE CLEAN WATER ACT SECTION 303(d)
LIST OF WATER QUALITY LIMITED SEGMENTS

WATER BODY FACT SHEETS SUPPORTING
THE “DO NOT DELIST” RECOMMENDATIONS

DRAFT FINAL |
September 2006

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

**EVALUATION OF DATA AND INFORMATION RELATED TO
THE CLEAN WATER ACT SECTION 303(d)
LIST OF WATER QUALITY LIMITED SEGMENTS**

***Water Body Fact Sheets Supporting the
“Do Not Delist” Recommendations***

This Staff Report summarizes the assessment of data and information that did not result in a recommended change to the section 303(d) list for waters and pollutants already on the list. Data and information used to develop these fact sheets included ~~(1)~~ data used to support the original listing, and ~~(2)~~ new data not previously available.

The Staff Report contains only those fact sheets where the recommendation is to not remove a water body-pollutant combination from the section 303(d) list. Some of the fact sheets in the September 30, 2005 draft of this Staff Report have been changed in response to comments. If a fact sheet was modified, it is now grouped with other changed fact sheets in a “New or Revised” fact sheets section. Fact sheets that were not revised are grouped in their own section with the original fact sheet summaries presented in the September 2005 version. References for all data and information used are presented in Appendix 2 of Volume I of the Staff Report: *Revision of the Clean Water Act Section 303(d) List of Water Quality Limited Segments*.

Fact sheets are included for the following regions:

- North Coast (Region 1)
- San Francisco Bay (Region 2)
- Central Coast (Region 3)
- Los Angeles (Region 4)
- Central Valley (Region 5)
- Lahontan (Region 6)
- Colorado River Basin (Region 7)
- Santa Ana (Region 8)
- San Diego (Region 9)

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Fact Sheets Supporting
“Do Not Delist” Recommendations



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New or Revised Fact Sheets

New or Revised Fact Sheets

Region 1

Water Segment: Russian River HU, Middle Russian River HA, Laguna de Santa Rosa

Pollutant: Nitrogen

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.11 of the Listing Policy. Under this section a single line of evidence is necessary to assess listing status. Fourteen lines of evidence are available in the administrative record to assess this pollutant. They cover TIN:TP ratio, TIN, Nitrate-Nitrogen, Ammonia-Nitrogen, and Nitrate.

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

This conclusion is based on the staff findings that:

1. While no numeric water quality objective is available for nitrogen, USEPA provided guidelines that were used to assess the magnitude of the observed nitrogen concentrations.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Assessment of nitrogen measurements show that many measurements are an order of magnitude higher than the USEPA-provided thresholds.
5. The Laguna is infested with exotic aquatic vegetation (Ludwigia) that thrives in oxygen poor, nutrient rich waters. This plant prevents effective mosquito control efforts.
6. It appears that the nutrient concentrations and loads have a reasonable potential to be a promoting factor in the observed infestation of Ludwigia. Nitrogen therefore poses a risk to the maintenance of the narrative water quality standard in the Laguna.

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: WA - Warm Freshwater Habitat

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: Water shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such

growths cause nuisance or adversely affect beneficial uses.

Evaluation Guideline: USEPA provided testimony that nitrogen levels should be compared to nutrient assessment guidelines for the protection of aquatic life (USEPA, 2006). Many values are available and potentially could be used to evaluate Laguna de Santa Rosa nitrogen data. The threshold values ranged from 0.22 to 1.5 mg/L.

Data Used to Assess Water Quality: Data were provided in comments by USEPA (Strauss, 2006). Data were evaluated from two sources (Whickhan and Rawson, 2000 and Scoles, 2006 as referenced in USEPA, 2006).

Nitrogen levels are significantly higher than the range of assessment levels provided by USEPA (USEPA, 2006). Approximately 30% of the samples exceeded the thresholds. At least 18 samples exceeded by a factor 10.

The nitrogen data reported by Scoles also was expressed in terms of individual nitrogen components, Forty-three percent of the samples exceeded the screening threshold and about 10% of samples exceeded this threshold by a factor or at least 4.

Numeric Line of Evidence Pollutant-Water

Beneficial Use: WA - Warm Freshwater Habitat

Matrix: Water

Water Quality Objective/ Water Quality Criterion: Basin Plan: Water shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.

Evaluation Guideline: Data is recorded as TIN:TP ratio. TIN:TP ratio is considered in the narrative objective for biostimulatory substances. However, there is no numeric water quality objective for TIN:TP ratio. Therefore, it is difficult to determine that the concentration of TIN:TP ratio exceeds standards.

Data Used to Assess Water Quality: Twenty-five sampling events were completed by the City of Santa Rosa NPDES Program. The TIN:TP ratios for the 101 samples taken ranged from 2.5 to 29.1667 with an average value of 4.365 and a standard deviation of 3.282. There was a 99% confidence interval of 0.841. Even though there is a narrative objective for biostimulatory substance there is not a numeric objective or criteria to compare to the TIN:TP ratios. Therefore, it is difficult to determine whether the decrease in dissolved oxygen is due solely to the TIN:TP ratio levels (Scoles, 2004).

Spatial Representation: Samples were collected from 4 sampling sites: Laguna at Todd Road, Upstream at Delta, Laguna upstream of D-Pond Incline pump, and Laguna approximately 100 feet upstream of Llano Rd. Bridge.

Temporal Representation: Samples were collected between 1/2003 and 12/2003.

Data Quality Assessment: City of Santa Rosa Quality Assurance Manual.

Numeric Line of Evidence Pollutant-Water

Beneficial Use: WA - Warm Freshwater Habitat

<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Water shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.
<i>Evaluation Guideline:</i>	Total Inorganic Nitrogen was measured and is considered in the narrative objective for biostimulatory substances. However, there is no numeric water quality objective for total inorganic nitrogen. Therefore, it is difficult to determine that the concentration of total inorganic nitrogen exceeds standards.
<i>Data Used to Assess Water Quality:</i>	Sixty sampling events were completed by the City of Santa Rosa NPDES Program. The values of the total inorganic nitrogen ranged from 0.3 to 12.2. Even though there is a narrative objective for biostimulatory substance there is not a numeric objective or criteria to compare to the concentration of total inorganic nitrogen (Scoles, 2004).
<i>Spatial Representation:</i>	Samples were collected from 12 sites: Laguna at Llano Road, Laguna at Todd Road, Laguna at Hwy 12, and Laguna at Occidental Bridge, Laguna 100 feet upstream of D-Pond Incline Pump, Laguna 150 feet downstream of D-Pond Incline Pump, Laguna at La Franchi, Laguna approximately 100 feet upstream of Llano Rd. Bridge, Laguna upstream of D-Pond 36, upstream Laguna at Delta, Russian River at Wohler Bridge, Russian River at Mirabel, upstream Roseland Cr. at Llano Rd., downstream Roseland Cr. at Summer Crossing/South of Alpha Bldg., upstream Kelly-downstream confluence of Duer Creek and Kelly Farm Drainage, downstream Duer Creek at Kelly, Colgan Creek upstream confluence with Laguna.
<i>Temporal Representation:</i>	Samples were collected between 10/1995 and 3/2004.
<i>Data Quality Assessment:</i>	City of Santa Rosa Quality Assurance Manual.

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	WA - Warm Freshwater Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Water shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.
<i>Evaluation Guideline:</i>	Total Organic Nitrogen was measured and is considered in the narrative objective for biostimulatory substances. However, there is no numeric water quality objective for total organic nitrogen. Therefore, it is difficult to determine that the concentration of total organic nitrogen exceeds standards.
<i>Data Used to Assess Water Quality:</i>	Twenty-five sampling events were conducted by the City of Santa Rosa NPDES Program. The samples ranged from values of 0.2 mg/L to 2.3 mg/L total organic nitrogen. Even though there is a narrative objective for biostimulatory substance there is not a numeric objective or criteria to compare to the concentration of total organic nitrogen (Scoles, 2004).
<i>Spatial Representation:</i>	Sample were collected from 4 sites: Laguna at Todd Road, Upstream at Delta, Laguna upstream of D-Pond Incline pump, and Laguna upstream of Llano Rd. Bridge.

Temporal Representation: Samples were collected between 1/2003 and 12/2003.
Data Quality Assessment: City of Santa Rosa Quality Assurance Manual.

Numeric Line of Evidence Pollutant-Water
Beneficial Use: WA - Warm Freshwater Habitat
Matrix: Water
*Water Quality Objective/
 Water Quality Criterion:* Basin Plan: Water shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.
Evaluation Guideline: Data is reported in TIN: 0.80 TP (Bioavailable N:P ratio). TIN: 0.80 TP is considered in the narrative objective for biostimulatory substances. However, there is no numeric water quality objective for TIN: 0.80 TP. Therefore, it is difficult to determine that the concentration of TIN: 0.80 TP exceeds standards.
Data Used to Assess Water Quality: Sixty sampling events were completed by the City of Santa Rosa NPDES Program. The range of measured values for the ratio of TIN: 0.80 TP was from 0.3 to 16.9. Even though there is a narrative objective for biostimulatory substance there is not a numeric objective or criteria to compare to the concentration of TIN: 0.80 TP (Scoles, 2004).
Spatial Representation: Samples were collected from 12 sites: Laguna at Llano Road, Laguna at Todd Road, Laguna at Hwy 12, and Laguna at Occidental Bridge, Laguna 100 feet upstream of D-Pond Incline Pump, Laguna 150 feet downstream of D-Pond Incline Pump, Laguna at La Franchi, Laguna-approximately 100 feet upstream of Llano Rd. Bridge, Laguna upstream of D-Pond 36, upstream Laguna at Delta, Russian River at Wohler Bridge, Russian River at Mirabel, upstream Roseland Cr. at Llano Rd., downstream Roseland Cr. at Summer Crossing/South of Alpha Bldg., upstream Kelly-downstream confluence of Duer Creek and Kelly Farm Drainage, downstream Duer Creek at Kelly, Colgan Creek upstream confluence with Laguna.
Temporal Representation: Samples were collected between 10/1995 and 3/2004.
Data Quality Assessment: City of Santa Rosa Quality Assurance Manual.

Numeric Line of Evidence Pollutant-Water
Beneficial Use: WA - Warm Freshwater Habitat
Matrix: Water
*Water Quality Objective/
 Water Quality Criterion:* Basin Plan: Water shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.
Evaluation Guideline: Data is reported in TIN: 0.80 TP (Bioavailable N:P ratio). TIN: 0.80 TP is considered in the narrative objective for biostimulatory substances. However, there is no numeric water quality objective for TIN: 0.80 TP. Therefore, it is difficult to determine that the concentration of TIN: 0.80 TP exceeds standards.

Data Used to Assess Water Quality: Eighty-six sampling events were conducted by the RWQCB Nutrient TMDL Program. The values of the TIN: 0.80 TP recorded ranged from 0.03 up to 20.02. Even though there is a narrative objective for biostimulatory substance there is not a numeric objective or criteria to compare to the measurement of TIN: 0.80 TP (Scoles, 2004).

Spatial Representation: Four sample sites: Laguna at Guerneville Road, Laguna at Occidental Road, Laguna at Stony Point Road and Laguna at Trenton-Healdsburg Road.

Temporal Representation: Samples were collected between 7/1997 and 11/2000.

Data Quality Assessment: Nutrient TMDL Program.

Numeric Line of Evidence Pollutant-Water

Beneficial Use: MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix: Water

Water Quality Objective/ Water Quality Criterion: Basin Plan: Water shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.

Evaluation Guideline: Nitrate-Nitrogen is considered in the narrative objective for biostimulatory substances. However, there is no numeric water quality criterion for nitrate-nitrogen. Therefore, it is difficult to determine that the concentration of nitrate-nitrogen exceeds standards.

Data Used to Assess Water Quality: Sixty sampling events were conducted by the City of Santa Rosa NPDES Program. The sample values ranged from 0.2 mg/L to 9.7 mg/L and the values were presented as monthly averages of weekly observations. Even though there is a narrative objective for biostimulatory substance there is not a numeric objective or criteria to compare to the concentration of nitrate-nitrogen (Scoles, 2004).

Spatial Representation: Samples were collected from up to 12 sites: Laguna at Llano Road, Laguna at Todd Road, Laguna at Hwy 12, and Laguna at Occidental Bridge, Laguna 100 feet upstream of D-Pond Incline Pump, Laguna 150 feet downstream of D-Pond Incline Pump, Laguna at La Franchi, Laguna approximately 100 feet upstream of Llano Rd. Bridge, Laguna upstream of D-Pond 36, upstream Laguna at Delta, Russian River at Wohler Bridge, Russian River at Mirabel, upstream Roseland Cr. at Llano Rd., downstream Roseland Cr. at Summer Crossing/South of Alpha Bldg., upstream Kelly-downstream confluence of Duer Creek and Kelly Farm Drainage, downstream Duer Creek at Kelly, Colgan Creek upstream confluence with Laguna.

Temporal Representation: Samples were collected between 10/1995 and 3/2004.

Data Quality Assessment: City of Santa Rosa QA Manual.

Numeric Line of Evidence Pollutant-Water

Beneficial Use: MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	There are no applicable criteria available for Ammonia-Nitrogen.
<i>Data Used to Assess Water Quality:</i>	Twenty-five sampling events were completed by the City of Santa Rosa NPDES Program. There were 101 samples taken for Ammonia-Nitrogen, the values ranged from 0.2 mg/L to 1.1mg/L. The number of exceedances of the standard was not possible to calculate due to the lack of an applicable criterion for Ammonia-Nitrogen to compare to the measured values (Scoles, 2004).
<i>Spatial Representation:</i>	Samples were collected at up to 4 sampling sites: Laguna at Todd Road, Upstream at Delta, Laguna upstream of D-Pond Incline pump, and Laguna upstream of Llano Rd. Bridge.
<i>Temporal Representation:</i>	Samples were collected between 1/2003 and 12/2003.
<i>Data Quality Assessment:</i>	City of Santa Rosa QA Manual.

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	CO - Cold Freshwater Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	There are no applicable criteria available for Ammonia-Nitrogen.
<i>Data Used to Assess Water Quality:</i>	There were 86 sampling events completed by the RWQCB TMDL Monitoring Program. The range of values measured was from 0.025 mg/L to 3.24 mg/L. There is not a numeric objective or criteria to compare to the concentration of ammonia-nitrogen in the samples. Therefore, it is difficult to determine whether the decrease in dissolved oxygen is due solely to the ammonia-nitrogen concentration levels (Scoles, 2004).
<i>Spatial Representation:</i>	Up to four sample sites: Laguna at Guerneville Road, Laguna at Occidental Road, Laguna at Stony Point Road and Laguna at Trenton-Healdsburg Road.
<i>Temporal Representation:</i>	Samples were collected between 7/1997 and 11/2000.
<i>Data Quality Assessment:</i>	RWQCB Nutrient TMDL Program.

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	CO - Cold Freshwater Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	There are no applicable criteria available for Ammonia-Nitrogen.
<i>Data Used to Assess Water Quality:</i>	Twenty-five sampling events were conducted by the City of Santa Rosa NPDES Program. The values of the measurements ranged from 0.2 mg/L to 1.1 mg/L. The number of exceedances of the standard was not calculated due to the lack of an applicable criterion for Ammonia-Nitrogen to compare to the measured values (Scoles, 2004).

Spatial Representation: Samples were collected at up to 4 sites: Laguna at Todd Road, Upstream at Delta, Laguna upstream of D-Pond Incline pump, and Laguna upstream of Llano Rd. Bridge.

Temporal Representation: Samples were collected between 1/2003 and 12/2003.

Data Quality Assessment: City of Santa Rosa QA Manual.

Numeric Line of Evidence Pollutant-Water

Beneficial Use: CO - Cold Freshwater Habitat

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* There are no applicable criteria available for Ammonia-Nitrogen.

Data Used to Assess Water Quality: There were sixty samples events from the City of Santa Rosa NPDES Program. The measured values ranged from 0.1 mg/L to 6.8 mg/L. The number of exceedances of the standard was not calculated due to the lack of an applicable criterion for Ammonia-Nitrogen to compare to the measured values (Scoles, 2004).

Spatial Representation: Samples were collected from 12 sites: Laguna at Llano Road, Laguna at Todd Road, Laguna at Hwy 12, and Laguna at Occidental Bridge, Laguna 100 feet upstream of D-Pond incline Pump, Laguna 150 feet downstream of D-Pond Incline Pump, Laguna at La Franchi, Laguna-approximately 100 feet upstream of Llano Rd. Bridge, Laguna upstream of D-Pond 36, upstream Laguna at Delta, Russian River at Wohler Bridge, Russian River at Mirabel, upstream Roseland Cr. at Llano Rd., downstream Roseland Cr. at Summer Crossing/South of Alpha Bldg., upstream Kelly-downstream confluence of Duer Creek and Kelly Farm Drainage, downstream Duer Creek at Kelly, Colgan Creek upstream confluence with Laguna.

Temporal Representation: Samples were collected between 12/1995 and 3/2004.

Data Quality Assessment: City of Santa Rosa QA Manual.

Numeric Line of Evidence Pollutant-Water

Beneficial Use: CO - Cold Freshwater Habitat, MU - Municipal & Domestic

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: Water shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.

Evaluation Guideline: Nitrate is considered in the narrative objective for biostimulatory substances. There is no a nitrate numeric water quality criterion for the Cold Water Beneficial Use. However, for the beneficial use of Municipal and Domestic Supply (MUN), the MCL Criteria for Nitrates is 45 mg/L (ppm) can be considered.

Data Used to Assess Water Quality: Eighty-six sampling events were conducted by the RWQCB Nutrient TMDL Monitoring Program. There were no samples that exceeded the 45 mg/L MCL criterion (Scoles, 2004).

Spatial Representation: Samples were collected from 4 sample sites: Laguna at Guerneville Road, Laguna at Occidental Road, Laguna at Stony Point Road, and Laguna at Trenton-Healdsburg Road.

Temporal Representation: Samples were collected between 7/1997 and 11/2000.

Data Quality Assessment: RWQCB TMDL Monitoring Program.

Numeric Line of Evidence Pollutant-Water

Beneficial Use: CO - Cold Freshwater Habitat, MU - Municipal & Domestic

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: Water shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.

Evaluation Guideline: Nitrite is considered in the narrative objective for biostimulatory substances. However, there is no applicable numeric water quality criterion for nitrite. Therefore, it is difficult to determine that the concentration of nitrite exceeds standards.

Data Used to Assess Water Quality: Eighty-six sampling events were completed by the RWQCB Nutrient TMDL Program. The nitrite values ranged from 0.025mg/L to 0.28 mg/L. Even though there is a narrative objective for biostimulatory substance there is not a numeric objective/criteria to compare the concentration of nitrite (Scoles, 2004).

Spatial Representation: Up to four sample sites: Laguna at Guerneville Road, Laguna at Occidental Road, Laguna at Stony Point Road, and Laguna at Trenton-Healdsburg Road.

Temporal Representation: Samples were collected between 7/1997 - 11/2000.

Data Quality Assessment: Nutrient TMDL Program.

Line of Evidence Narrative Description Data

Beneficial Use WA - Warm Freshwater Habitat

Information Used to Assess Water Quality: Ludwigia hexapetala, an exotic vegetation, is a direct threat to the diversity of native plant and animal communities in the Laguna by growing over surrounding vegetation to produce thick mats of woody perennial stems and decaying plant matter (Sears et al., 2005). This mat inhibits the recovery and recruitment of other plants, and eliminates open-water habitats that are important foraging grounds for bird and other wildlife. As Ludwigia tissue decomposes, microbes reduce dissolved oxygen in water, impacting fish and invertebrate populations.

Ludwigia is adapted to low-oxygen (anaerobic) conditions, through specialized root structures that extract oxygen and nutrients from the water column. These root structures also provide a conduit for atmospheric gases to the plant in anaerobic conditions. Along with the ability to tolerate low oxygen levels, Ludwigia appears to grow well in nutrient-rich waters. In general for this species, increased nitrogen and phosphorus concentrations in water result in increased growth and

greater plant biomass.

Non-Numeric Objective:

Basin Plan: Water shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.

Spatial Representation:

Ludwigia hexapetala covers at least 150 acres of shallow-water areas in the Laguna de Santa Rosa.

Region 1

Water Segment: Russian River HU, Middle Russian River HA, Laguna de Santa Rosa

Pollutant: Phosphorus

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.11 of the Listing Policy. Under this section at least single line of evidence is necessary to assess listing status. Six lines of evidence are available in the administrative record to assess this pollutant.

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

This conclusion is based on the staff findings that:

1. While no numeric water quality objective is available for phosphorus, USEPA provided guidelines that were used to assess the magnitude of the observed phosphorus concentrations.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Assessment of phosphorus measurements show that many measurements are an order of magnitude higher than the USEPA-provided thresholds.
5. The Laguna is infested with exotic aquatic vegetation (*Ludwigia*) that thrives in oxygen poor, nutrient rich waters. This plant prevents effective mosquito control efforts.
6. It appears that the nutrient concentrations and loads have a reasonable potential to be a promoting factor in the observed infestation of *Ludwigia*. Phosphorus therefore poses a risk to the maintenance of the narrative water quality standard in the Laguna.

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

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	CO - Cold Freshwater Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Water shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.
<i>Evaluation Guideline:</i>	USEPA provided testimony that phosphorus levels should be compared to nutrient assessment guidelines for the protection of aquatic life (USEPA, 2006). These values range from 0.010 to 0.2 mg/L.
<i>Data Used to Assess Water Quality:</i>	Data were provided in comments by USEPA (USEPA, 2006). Data were evaluated from two sources (Whickhan and Rawson, 2000 and Scoles, 2006 as referenced in USEPA, 2006). Total phosphorus data were presented in both sources and were compared to the guideline levels from USEPA. Approximately 95% of phosphorus measurements exceeded the least conservative screening threshold. Approximately 20% of measurements exceeded the 0.1 mg/L threshold by a factor of 10.

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	CO - Cold Freshwater Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Water shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.
<i>Evaluation Guideline:</i>	Phosphorus is considered in the narrative objective for biostimulatory substances. Without a numeric water quality objective it is difficult to determine whether the concentration of total phosphorus exceeded standards.
<i>Data Used to Assess Water Quality:</i>	There were 86 sampling events conducted by the RWQCB TMDL Monitoring Program at the 3 to 4 sampling sites between 7/1997 and 11/2000. The data range for values of total phosphorus was between 0.113 mg/L and 1.87 mg/L. Even though there is a narrative objective for biostimulatory substance, there is not a numeric objective or criteria to compare to the concentration of total phosphorus measured (Scoles, 2004).
<i>Spatial Representation:</i>	Three to four sample sites (Laguna at Guerneville Road, Laguna at Occidental Road, Laguna at Stony Point Road and Laguna at Trenton-Healdsburg Road).
<i>Temporal Representation:</i>	Samples were collected between 7/1997 and 11/2000.
<i>Data Quality Assessment:</i>	Nutrient TMDL Program.

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	CO - Cold Freshwater Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Water shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.
<i>Evaluation Guideline:</i>	Phosphorus is considered in the narrative objective for biostimulatory substances. A numeric water quality objective is not available so it is difficult to determine whether the concentration of total phosphorus exceeded standards.
<i>Data Used to Assess Water Quality:</i>	There were sixty sampling events completed by the City of Santa Rosa NPDES Program at up to 12 sample sites between 12/1995 and 3/2004. The data range for values of total phosphorus was between 0.1 mg/L and 3.9 mg/L. Even though there is a narrative objective for biostimulatory substance, there is not a numeric objective or criteria to compare to the concentration of total phosphorus measured (Scoles, 2004).
<i>Spatial Representation:</i>	Samples were collected from 2 to 12 sites (Laguna at Llano Road, Laguna at Todd Road, Laguna at Hwy 12, and Laguna at Occidental Bridge, Laguna 100' upstream of D-Pond Incline Pump, Laguna 150' downstream of D-Pond Incline Pump, Laguna at La Franchi, Laguna-approx 100' upstream of Llano Rd. Bridge, Laguna upstream of D-Pond 36", upstream Laguna at Delta, Russian River at Wohler Bridge, Russian River at Mirabel, upstream Roseland Cr. at Llano Rd., downstream Roseland Cr. at Summer Crossing/South of Alpha Bldg., upstream Kelly-downstream confluence of Duer Creek and Kelly Farm Drainage, downstream Duer Creek at Kelly, Colgan Creek upstream confluence with Laguna.
<i>Temporal Representation:</i>	Samples were collected during 12/95 through 3/04.
<i>Data Quality Assessment:</i>	City of Santa Rosa QA Manual.

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	CO - Cold Freshwater Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Water shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.
<i>Evaluation Guideline:</i>	Data reported in 80% TP (total phosphorus). 80% TP is considered in the narrative objective for biostimulatory substances. There is no numeric water quality objective for 80% TP. Therefore, it is difficult to determine that the concentration of nitrate-nitrogen exceeds standards.
<i>Data Used to Assess Water Quality:</i>	Eighty-six sampling events were conducted by the RWQCB TMDL Program. The range of values of 80% TP was between 0.02 and 2.38. Even though there is a narrative objective for biostimulatory substance there is not a numeric objective or criteria to compare the concentration

of 80% TP. Therefore, it is difficult to determine whether the decrease in dissolved oxygen is solely due to the 80% TP (SWRCB, 2003).

Spatial Representation: Three to four sample sites (Laguna at Guerneville Road, Laguna at Occidental Road, Laguna at Stony Point Road and Laguna at Trenton-Healdsburg Road.

Temporal Representation: Samples were collected between 7/1997 and 11/2000.

Data Quality Assessment: NCRWQCB Nutrient TMDL Program.

Numeric Line of Evidence Pollutant-Water

Beneficial Use: CO - Cold Freshwater Habitat

Matrix: Water

Water Quality Objective/ Water Quality Criterion: Basin Plan: Water shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.

Evaluation Guideline: Phosphorus is considered in the narrative objective for biostimulatory substances. A numeric water quality objective is not available so it is difficult to determine whether the concentration of total phosphorus exceeded standards.

Data Used to Assess Water Quality: Twenty-five sampling events were completed by the City of Santa Rosa NPDES at up to 5 sample sites between 1/2003 and 12/2003. The range of values for total phosphorus measured was between 0.4 mg/L and 1.6 mg/L. Even though there is a narrative objective for biostimulatory substance there is not a numeric objective or criteria to compare to the concentration of total phosphorus (Scoles, 2004).

Spatial Representation: Samples were collected at 4 sites: Laguna at Todd Road, upstream at Delta, Laguna upstream of D-Pond Incline pump, and Laguna upstream of Llano Rd. Bridge.

Temporal Representation: Samples were collected between 1/2003 and 12/2003.

Data Quality Assessment: City of Santa Rosa QA Manual.

Line of Evidence Narrative Description Data

Beneficial Use WA - Warm Freshwater Habitat

Information Used to Assess Water Quality: Ludwigia hexapetala, an exotic vegetation, is a direct threat to the diversity of native plant and animal communities in the Laguna by growing over surrounding vegetation to produce thick mats of woody perennial stems and decaying plant matter (Sears et al., 2005). This mat inhibits the recovery and recruitment of other plants, and eliminates open-water habitats that are important foraging grounds for bird and other wildlife. As Ludwigia tissue decomposes, microbes reduce dissolved oxygen in water, impacting fish and invertebrate populations.

Ludwigia is adapted to low-oxygen (anaerobic) conditions, through specialized root structures that extract oxygen and nutrients from the water column. These root structures also provide a conduit for atmospheric gases to the plant in anaerobic conditions. Along with the

ability to tolerate low oxygen levels, Ludwigia appears to grow well in nutrient-rich waters. In general for this species, increased nitrogen and phosphorus concentrations in water result in increased growth and greater plant biomass.

Non-Numeric Objective:

Basin Plan: Water shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.

Spatial Representation:

Ludwigia hexapetala covers at least 150 acres of shallow-water areas in the Laguna de Santa Rosa.

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Original Fact Sheets

Fact Sheets Not Changed
from September 2005 Version

Region 1

Water Segment:	Eel River HU, Middle Fork HA
Pollutant:	Temperature, water
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.2 of the Listing Policy. Under this section a single line of evidence is necessary to assess listing status.</p> <p>One line of evidence is available in the administrative record to assess temperature consistent with the Listing Policy section 6.1.5.9. A large number of samples exceed the water quality objective. 321 of 339 temperature measurements (total) exceeded the 14.8°C coho guideline and 17.0°C steelhead evaluation guidelines.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">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. There were 321 of 339 temperature samples exceeded the 14.8°C coho and 17.0°C steelhead evaluation guidelines and this exceeds the allowable frequency calculated from the equation in Table 4.2 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 met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.
Lines of Evidence:	

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	CO - Cold Freshwater Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Temperature objectives for COLD interstate waters, WARM interstate waters, and Enclosed Bays and Estuaries are as specified in the "Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays of California" including any revisions thereto. A copy of this plan is included verbatim in the Appendix Section of this Plan. In addition, the following temperature objectives

apply to surface waters: The natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses. At no time or place shall the temperature of any COLD water be increased by more than 5 degrees F above natural receiving water temperature. At no time or place shall the temperature of WARM intrastate waters be increased more than 5 degrees F above natural receiving water temperature.

Evaluation Guideline:

The guideline used was from Sullivan et al. (2000) Published Temperature Thresholds-Peer Reviewed Literature which includes reviewed sub-lethal and acute temperature thresholds from a wide range of studies, incorporating information from laboratory-based research, field observations, and risk assessment approaches. This report calculated the 7-day mean (maximum value of the 7-day moving average of the daily mean temperature) upper threshold criterion for coho salmon as 14.8°C and for steelhead trout as 17.0°C. The risk assessment approach used by Sullivan et al. (2000) suggests that the 7-day average upper threshold of a 14.8°C for coho and a 17.0°C for steelhead will reduce average growth 10% from optimum.

Data Used to Assess Water Quality:

The data submitted was for the Middle fork of the Eel River. Three sampling locations were provided. There were a total of 339 samples taken at the three sampling locations from May 27 to September 16, 2003. 321 temperature samples exceeded the 14.8°C coho guideline and 17.0°C steelhead evaluation guideline (North Coast RWQCB, 2003c).

Spatial Representation:

There were 3 sampling locations in the Middle Fork Eel River. These locations were: Middle Fork Eel near the mainstream at Rowland Bar, Middle Fork at Cable Creek, and Middle Fork near Dos Rios Bridge.

Temporal Representation:

Samples were collected hourly over the period of May 27 to September 16, 2003.

Environmental Conditions:

The Middle Fork of the Eel River is currently listed for temperature.

Data Quality Assessment:

No QAPP provided. Data collected from the Mendocino County Water Agency.

Region 1

Water Segment: Eel River HU, South Fork HA

Pollutant: Temperature, water

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.2 of the Listing Policy. Under this section a single line of evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess temperature consistent with Listing Policy section 6.1.5.9. A large number of samples exceed the water quality objective. When compared to the 14.8 °C coho threshold, there were 4,184 exceedances out of 10,476 total samples taken over all the sampling years. When compared to the 17.0°C steelhead threshold there were 1,350 exceedances found.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. At a minimum, 4,184 of 10,476 samples exceeded the Sullivan 14.8 °C coho evaluation guideline used to interpret the water quality objective and this exceeds the allowable frequency calculated from the equation in Table 4.2 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: CO - Cold Freshwater Habitat

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: Temperature objectives for COLD interstate waters, WARM interstate waters, and Enclosed Bays and Estuaries are as specified in the "Water Quality Control Plan for Control of Temperature in the Coastal

and Interstate Waters and Enclosed Bays of California" including any revisions thereto. A copy of this plan is included verbatim in the Appendix Section of this Plan. In addition, the following temperature objectives apply to surface waters: The natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses. At no time or place shall the temperature of any COLD water be increased by more than 5°F above natural receiving water temperature. At no time or place shall the temperature of WARM intrastate waters be increased more than 5°F above natural receiving water temperature.

<i>Evaluation Guideline:</i>	The guideline used was from Sullivan et al. (2000) Published Temperature Thresholds-Peer Reviewed Literature which includes reviewed sub-lethal and acute temperature thresholds from a wide range of studies, incorporating information from laboratory-based research, field observations, and risk assessment approaches. This report calculated the 7-day Mean (maximum value of the 7-day moving average of the daily mean temperature) upper threshold criterion for coho salmon as 14.8°C and for steelhead trout as 17.0°C. The risk assessment approach used by Sullivan et al. (2000) suggests that the 7-day average upper threshold of a 14.8°C for coho and 17.0°C for steelhead will reduce average growth 10% from optimum.
<i>Data Used to Assess Water Quality:</i>	When the data was compared to the 14.8°C threshold for coho, there were 4,184 exceedances out of 10,476 total samples taken over all of the years at the sampling locations. When compared to the 17°C threshold for steelhead there were 1,350 exceedances found (Hawthorne Timber Company, 2003).
<i>Spatial Representation:</i>	Data was collected in-stream from the Eel River. The sampling sites were located along the main stem of the South Fork Eel River, Indian Creek, Moody Creek, Anderson Creek, Piercy Creek, Standley Creek, Bear Pen Creek, Wildcat Creek, Hollow Tree Creek, Dutch Charlie Creek and Redwood Creek. A total of 10,476 sampling measurements were taken at 13 sampling locations from 1994 to 2003. In-stream and riparian measurements were taken at all monitoring locations.
<i>Temporal Representation:</i>	Data was recorded for 10 years, from 1994 through 2003. Water temperature data were recorded at ninety-minute intervals, generally from June until Mid-October. Stream temperatures were measured continuously with temperature data loggers (Onset Computer Corp. model HOBOTemp and OST temperature loggers) in Class 1 streams throughout the property from 1994 to 2004. Hobo-temps allowed uninterrupted data collection to occur throughout the critical summer period.
<i>Environmental Conditions:</i>	The Eel River HU, South Fork HA is currently listed for temperature. The USEPA will develop a TMDL for Eel River, South Fork. Sediment and temperature TMDLs will be developed for the area tributary to and including the South Fork of the Eel River above Garberville and the area tributary to an including the South Fork of the Eel River below Garberville.
<i>Data Quality Assessment:</i>	QA/QC Information Summary submitted. Installation of the temperature data logger (Onset Computer Corp. model HOBOTemp and OST temperature loggers) in Class 1 streams throughout the property devices occurred one day before the first day logged on the continuous

temperature monitoring figures. This was done to allow the data loggers to reach equilibrium with the instream temperature regimes and to capture complete daily cycles. No information on equipment calibration, standard operating procedures or data protocols were included with the submittal.

Region 1

Water Segment: Eel River HU, Upper Main HA, Lake Pillsbury HSA, Lake Pillsbury

Pollutant: Mercury

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.5 of the Listing Policy. One line of evidence is available in the administrative record to assess this pollutant.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Forty-eight out of 51 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 4.1 of the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

Beneficial Use: CM - Commercial and Sport Fishing (CA)

Matrix: Tissue

*Water Quality Objective/
Water Quality Criterion:* North Coast RWQCB Basin Plan: All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life.

Evaluation Guideline: 0.3 µg/g OEHHA Screening Value (Brodberg & Pollock, 1999).

Data Used to Assess Water Quality: Forty-eight out of 51 samples exceeded. Filet composite and individual samples were collected for the following species: largemouth bass collected in 1992-95 and 1999-2001; Sacramento pike minnow collected in 1992-93, 1995, 1999, and 2000; bluegill collected in 1999; and rainbow

trout collected in 2000. All but two rainbow trout samples and one Sacramento pike minnow sample exceeded the guideline (TSMP, 2002).

Spatial Representation:

Four stations were sampled: near Lake Pillsbury Resort, along shoreline just north of the Scott Dam (Dam), in the Eel River Arm (Eel River Arm), and in Horsepasture Gulch near inflow (Horsepasture Gulch).

Temporal Representation:

Samples were collected annually in 1992-95 and 1999-2000.

Data Quality Assessment:

Toxic Substances Monitoring Program 1992-93 and 1994-95 Data Reports.

Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 1996-2000. Department of Fish and Game.

Region 1

Water Segment: Mendocino Coast HU, Big River HA, Big River

Pollutant: Temperature, water

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.2 of the Listing Policy. Under this section a single line of evidence is necessary to assess listing status.

Two lines of evidence are available in the administrative record to assess temperature consistent with Listing Policy section 6.1.5.9. A large number of samples exceed the water quality objective. This delisting decision only applies to the section of the Big River at Daugherty Creek, 50 feet above the confluence with the South Fork Big River and 100 feet below Orr Springs Road Bridge. Compared to the 14.8°C threshold there were 2,498 exceedances out of 3,925 samples taken over all of the sampling years at this location. When compared to the 17°C threshold there were 1,686 exceedances out of the 3,925 samples.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. At a minimum 2,498 of 3,925 samples exceeded the 14.8 degree evaluation guideline used to interpret the water quality objective and this exceeds the allowable frequency calculated from the equation in Table 4.2 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	CO - Cold Freshwater Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Temperature objectives for COLD interstate waters, WARM interstate waters, and Enclosed Bays and Estuaries are as specified in the "Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays of California" including any revisions thereto. A copy of this plan is included verbatim in the Appendix Section of this Plan. In addition, the following temperature objectives apply to surface waters: The natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses. At no time or place shall the temperature of any COLD water be increased by more than 5°F above natural receiving water temperature. At no time or place shall the temperature of WARM intrastate waters be increased more than 5°F above natural receiving water temperature.
<i>Evaluation Guideline:</i>	The guideline used was from Sullivan et al. (2000) Published Temperature Thresholds-Peer Reviewed Literature which includes reviewed sub-lethal and acute temperature thresholds from a wide range of studies, incorporating information from laboratory-based research, field observations, and risk assessment approaches. This report calculated the 7-day Mean (maximum value of the 7-day moving average of the daily mean temperature) upper threshold criterion for coho salmon as 14.8°C and for steelhead trout as 17.0°C. The risk assessment approach used by Sullivan et al. (2000) suggests that an upper threshold for the for the 7-day average of 14.8°C for coho and 17.0°C for steelhead will reduce average growth 10% from optimum.
<i>Data Used to Assess Water Quality:</i>	The Daugherty Creek near Big River sampling site had 114 total measurements with 108 exceedances of the Sullivan 14.8°C evaluation guideline (Mendocino County Water Agency, 2003). Of these 108 exceedances, 74 exceeded the 17.0°C evaluation guideline. The South Fork Big River site below Orr Springs Road Bridge had 114 total measurements with 108 exceedances of the Sullivan 14.8°C Evaluation guideline. Of these 108 exceedances, 73 exceeded the 17.0°C evaluation guideline (North Coast RWQCB, 2003b).
<i>Spatial Representation:</i>	Samples were taken from two sites. One site was at Daugherty Creek site 50 feet above the confluence with South Fork Big River. The other site was at South Fork Big River 100 feet below the Orr Springs Road Bridge.
<i>Temporal Representation:</i>	Samples were collected hourly from May 23, 2003 through September 7, 2003. MWATs were provided from the hourly data.
<i>Environmental Conditions:</i>	The Big River is currently listed for temperature.
<i>Data Quality Assessment:</i>	No QAPP information was provided. The data were submitted by the Mendocino County Water Agency.

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	CO - Cold Freshwater Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Temperature objectives for COLD interstate waters, WARM interstate waters, and Enclosed Bays and Estuaries are as specified in the "Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays of California" including any revisions thereto. A copy of this plan is included verbatim in the Appendix Section of this Plan. In addition, the following temperature objectives apply to surface waters: The natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses. At no time or place shall the temperature of any COLD water be increased by more than 5°F above natural receiving water temperature. At no time or place shall the temperature of WARM intrastate waters be increased more than 5°F above natural receiving water temperature.
<i>Evaluation Guideline:</i>	The guideline used was from Sullivan et al. (2000) Published Temperature Thresholds-Peer Reviewed Literature which includes reviewed sub-lethal and acute temperature thresholds from a wide range of studies, incorporating information from laboratory-based research, field observations, and risk assessment approaches. This report calculated the 7-day Mean (maximum value of the 7-day moving average of the daily mean temperature) upper threshold criterion for coho salmon as 14.8°C and for steelhead trout as 17.0°C. The risk assessment approach used by Sullivan et al. (2000) suggests that an upper threshold for the for the 7-day average of 14.8°C for coho and 17.0°C for steelhead will reduce average growth 10% from optimum.
<i>Data Used to Assess Water Quality:</i>	When compared to the 14.8 °C coho threshold, were 2,498 exceedances out of 3,925 total samples taken over the all of the sampling years at this location. When compared to the 17°C steelhead threshold there were 1,686 exceedances out of the 3,925 total samples (Hawthorne Timber Co., 2003).
<i>Spatial Representation:</i>	There were 7 sampling locations over 9 years. Hobo-Temps were placed in the pools near the bottom and towards the deepest portion to record the in-stream temperatures. In stream and riparian measurements were taken at all monitoring locations.
<i>Temporal Representation:</i>	Data was recorded for 1994,1995,1996,1998,1999, 2000, 2001, 2002, and 2003. Water temperature data were recorded at ninety-minute intervals, generally from June until Mid-October. Stream temperatures were measured continuously with temperature data loggers (Onset Computer Corp. model HOBOTemp and OST temperature loggers) in Class 1 streams throughout the property from 1994 to 2003. Hobo-temps allowed uninterrupted data collection to occur throughout the critical summer period.
<i>Environmental Conditions:</i>	Mendocino Coast HU, Big River HA, Big River is currently listed for temperature on the section 303(d) list. For the 2002 listing submittal data was collected over 4 years (1996-2000), with at least two years of record at 15 locations. Data showed exceedances of the Basin Plan Water

Quality Objectives and the Sullivan 2000 Published Temperature Thresholds-Peer Reviewed Literature. The most sensitive beneficial uses supported by the Big River include uses associated with the cold water fishery and municipal and domestic supply. The Big River provides habitat for coho salmon and steelhead trout, which are listed as a threatened species under the federal Endangered Species Act. Populations of coho salmon and steelhead trout in the Big River are extremely low compared to historical levels. Recent (1996-2000) temperature data gathered in the Big River watershed indicate that high temperature levels may be a source of impairment of cold water fisheries in the river. This listing is specific to the area of the watershed from the confluence with the North Fork Big River, including the watersheds of the mainstem Big and the North Fork Big.

Data Quality Assessment:

QA/QC Information Summary was submitted. Installation of the temperature data logger (Onset Computer Corp. model HOBO-Temp and OST temperature loggers in Class 1 streams throughout the property devices occurred one day before the first day logged on the continuous temperature monitoring figures. This was done to allow the data loggers to reach equilibrium with the instream temperature regimes and to capture complete daily cycles. No information on equipment calibration, standard operating procedures or data protocols were included with the submittal.

Region 1

Water Segment: Mendocino Coast HU, Rockport HA, Ten Mile River HSA

Pollutant: Temperature, water

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.2 of the Listing Policy. Under this section a single line of evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess temperature consistent with Listing Policy section 6.1.5.9. A large number of samples exceed the water quality objective. When compared to the 14.8 °C threshold, were 10,776 exceedances out of 41,187 total samples taken over all the sampling years at this location. When compared to the 17°C threshold there were 639 exceedances found.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. At a minimum 10,776 of 41,187 samples exceeded the Sullivan 14.8 degree coho evaluation guideline selected to interpret the water quality objective and this exceeds the allowable frequency calculated from the equation in Table 4.2 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: CO - Cold Freshwater Habitat

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: Temperature objectives for COLD interstate waters, WARM interstate waters, and Enclosed Bays and Estuaries are as specified in the "Water Quality Control Plan for Control of Temperature in the Coastal

and Interstate Waters and Enclosed Bays of California" including any revisions thereto. A copy of this plan is included verbatim in the Appendix Section of this Plan. In addition, the following temperature objectives apply to surface waters: The natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses. At no time or place shall the temperature of any COLD water be increased by more than 5 F above natural receiving water temperature. At no time or place shall the temperature of WARM intrastate waters be increased more than 5 F above natural receiving water temperature.

- Evaluation Guideline:* The guideline used was from Sullivan et al. (2000) Published Temperature Thresholds-Peer Reviewed Literature which includes reviewed sub-lethal and acute temperature thresholds from a wide range of studies, incorporating information from laboratory-based research, field observations, and risk assessment approaches. This report calculated the 7-day Mean (maximum value of the 7-day moving average of the daily mean temperature) upper threshold criterion for coho salmon as 14.8°C and for steelhead trout as 17.0°C. The risk assessment approach used by Sullivan et al. (2000) suggests that an upper threshold for the for the 7-day average of 14.8°C for coho and 17.0°C for steelhead will reduce average growth 10% from optimum.
- Data Used to Assess Water Quality:* When compared to the 14.8 °C coho threshold, there were 10,776 exceedances out of 41,187 total samples taken over all the sampling years at this location. When compared to the 17°C steelhead threshold there were 639 exceedances found (Hawthorne Timber Co., 2003).
- Spatial Representation:* Data was collected from the North Fork, Clark Fork, South Fork and mainstem of the Ten Mile River. Sampling measurements were taken from a total of 54 instream sampling locations. Hobo-Temps were placed in the pools near the bottom and towards the deepest portion to record the in-stream temperatures. In stream and riparian measurements were taken at all monitoring locations.
- Temporal Representation:* Data was recorded between 1994 and 2003. Water temperature data were recorded at 90-minute intervals, generally from June until Mid-October. Stream temperatures were measured continuously with temperature data loggers (Onset Computer Corp. model HOBOTemp and OST temperature loggers) in Class 1 streams throughout the property from 1994 to 2003. Hobo-temps allowed uninterrupted data collection to occur throughout the critical summer period.
- Environmental Conditions:* Mendocino Coast HU, Rockport HA, Ten Mile River HSA is currently listed for temperature. It was placed on the list during the 2002 listing cycle. The data showed that 31 out of the 37 locations exceeded the standards and uses of the Basin Plan Water Quality Objectives and Sullivan 2000 Published Temperature Thresholds-Peer Reviewed Literature.
- Data Quality Assessment:* QA/QC Information Summary was submitted. Installation of the temperature data logger (Onset Computer Corp. model HOBOTemp and OST temperature loggers) in Class 1 streams throughout the property devices occurred one day before the first day logged on the continuous temperature monitoring figures. This was done to allow the data loggers to reach equilibrium with the instream temperature regimes and to capture complete daily cycles. No information on equipment calibration,

standard operating procedures or data protocols were included with the submittal.

Region 1

Water Segment: Russian River HU, Middle Russian River HA, Geyserville HSA

Pollutant: Turbidity

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.2 of the Listing Policy. Under this section a single line of evidence is necessary to assess listing status. One line of evidence is available in the administrative record to assess this pollutant.

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

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. Ten of the 18 samples exceeded the evaluation guideline used to interpret the water quality objective. At least 28 samples are needed before a pollutant can be considered for removal from the list using the frequencies presented in Table 4.2 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: CO - Cold Freshwater Habitat

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses. Turbidity shall not be increased more than 20 percent above naturally occurring background levels. Allowable zones of dilution within which higher percentages can be tolerated may be defined for specific discharges upon the issuance of discharge permits or waiver thereof. Water shall not contain substances in concentrations that result in deposition of material that causes

nuisance or adversely affect beneficial uses.

Evaluation Guideline:

The evaluation guideline that has been used to determine turbidity exceedance is from published-peer reviewed paper, "The Effects of Chronic Turbidity on Density and Growth of Steelheads and Coho Salmon", John W Sigler (1984). The guideline is "In our studies, as little as 25 NTUs of turbidity caused a reduction in fish growth."

Data Used to Assess Water Quality:

By combining the data from the three sampling sites there were 10 samples out of the 18 samples that were above the evaluation guideline. The exceedances ranged from 30.5 NTU up to 356 NTU (Sandler, 2004).

Spatial Representation:

There were three sampling locations along the Russian River, one at Healdsburg, and two at Cloverdale. They are as follows:

- Sample site RUS070 is located at the Healdsburg Veteran's beach, Healdsburg.
- Sample site RUS080 is located at the Cloverdale 1st St. bridge, Cloverdale.
- Sample site RUS090 is located at the Cloverdale River Park, Cloverdale.

Temporal Representation:

RUS070 was sampled once a month January through April 2003. RUS080 and RUS090 were sampled once a month, January through May 2003, and in July and August 2003. Samples were taken on the same days of the month at each location.

Data Quality Assessment:

Draft QAPP for Volunteer Water Quality Monitoring Project for the Community Clean Water Institute.

Region 1

Water Segment: Russian River HU, Middle Russian River HA, Laguna de Santa Rosa

Pollutant: Oxygen, Dissolved

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.2 of the Listing Policy. Under this section a single line of evidence is necessary to assess listing status. Two lines of evidence are available in the administrative record to assess this pollutant.

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

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. The data collected from 1995-2001 had 1612 of 1792 samples that were below the minimum dissolved oxygen objective. The data from 2003 had 6 of 9 samples at one location, and 1 of 2 samples at the other locations, that were below the minimum dissolved oxygen objective. These samples exceed the allowable frequency listed in Table 4.2 of the Listing Policy.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	CO - Cold Freshwater Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Dissolved oxygen- is 7.0mg/L as a minimum; and the water must meet the 50% Upper Limit of 10 mg/L and 90% Upper Limit of 7.5 mg/L.
<i>Data Used to Assess Water Quality:</i>	The total number of samples taken were 1792 with 1612 samples below the Dissolved Oxygen water quality objective (SWRCB, 2003).

Spatial Representation: Data were collected at 4 points along the water body.
Temporal Representation: The data were collected over 5 to 6 years between 1995 and 2001 over 4 seasons.
Data Quality Assessment: Data came from the NCRWQCB 2002 Listing Update.

Numeric Line of Evidence Pollutant-Water
Beneficial Use: CO - Cold Freshwater Habitat
Matrix: Water
*Water Quality Objective/
Water Quality Criterion:* Basin Plan: Dissolved oxygen- is 7.0mg/L as a minimum; and the water must meet the 50% Upper Limit of 10 mg/L and 90% Upper Limit of 7.5 mg/L.
Data Used to Assess Water Quality: At sampling station LAG030 5 out of 9 samples were below the minimum 7.0 mg/L objective, this sampling locations samples were in exceedance Upper Limit 50% and Upper Limit 90% objectives as well. At sampling station LAG040 1 out of 2 samples were below the minimum 7.0 mg/L objective. At sampling station LTL010 1 out of 2 samples were below the minimum 7.0 mg/L objective. At sampling station LAG050 the only sample was below the minimum 7.0 mg/L objective (Sandler, 2004).
Spatial Representation: There are 5 sampling locations for Laguna de Santa Rosa. Sampling station LAG030 is located at Permanent gage behind Community Center in Sebastopol. Sampling station LAG040 is located at By bridge at Todd Rd. South of Sebastopol. Sampling station LTL010 is located at North of LAG050 on Llano Rd., by bridge. Sampling station LAG050 is located at By bridge at Llano Road south of Sebastopol.
Temporal Representation: Sampling station LAG030 was sampled once a month, with one measurement for that day of the month during 2003, with no samples collected for May, July and September. Sampling station LAG040 was sampled once in June and once in August 2003. Sampling station LTL010 was sampled once in June and once in August 2003. Sampling station LAG050 was sampled once in June 2003.
Data Quality Assessment: Draft QAPP for Volunteer Water Quality Monitoring Project for the Community Clean Water Institute.

Region 1

Water Segment: Russian River HU, Middle Russian River HA, Laguna de Santa Rosa

Pollutant: Turbidity

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.2 of the Listing Policy. Under this section a single line of evidence is necessary to assess listing status. Two lines of evidence are available in the administrative record to assess this pollutant.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category for sedimentation/siltation.

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. The data collected from 2003 had 8 of 15 samples that were in exceedance of the turbidity evaluation guideline used to interpret the water quality objective. These samples exceed the allowable frequency listed in Table 4.2 of the Listing Policy.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: CO - Cold Freshwater Habitat

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses. Turbidity shall not be increased more than 20 percent above naturally occurring background levels. Allowable zones of dilution within which higher percentages can be tolerated may be defined for specific discharges upon the issuance of

discharge permits or waiver thereof. Water shall not contain substances in concentrations that result in deposition of material that causes nuisance or adversely affect beneficial uses.

<i>Evaluation Guideline:</i>	The evaluation guideline that has been used to determine turbidity exceedance is from published-peer reviewed paper, "The Effects of Chronic Turbidity on Density and Growth of Steelheads and Coho Salmon", John W Sigler (1984). The guideline is "In our studies, as little as 25 NTUs of turbidity caused a reduction in fish growth."
<i>Data Used to Assess Water Quality:</i>	There were 15 turbidity samples taken in total, of those there were 8 samples that were above the Sigler turbidity evaluation guideline of 25 NTU. Each sampling location had at least one sample in exceedance, above the evaluation guideline (Sandler, 2004).
<i>Spatial Representation:</i>	There were 4 sampling locations for Laguna de Santa Rosa. Sampling station LAG030 is located at permanent gage behind Community Center in Sebastopol. Sampling station LAG040 is located by bridge at Todd Rd. South of Sebastopol. Sampling station LTL010 is located north of LAG050 on Llano Rd., by bridge. Sampling station LAG050 is located by bridge at Llano Road south of Sebastopol.
<i>Temporal Representation:</i>	Sampling station LAG030 was sampled once a month for ten months in 2003, no samples were taken in May and September. Sampling station LAG040, LAG050, and LTL010 were sampled once a month in June and August 2003.
<i>Data Quality Assessment:</i>	Draft QAPP for Volunteer Water Quality Monitoring Project for the Community Clean Water Institute.

Region 1

Water Segment:	Russian River HU, Middle Russian River HA, Warm Springs HAS
Pollutant:	Turbidity
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.2 of the Listing Policy. Under this section a single line of evidence is necessary to assess listing status.</p> <p>One line of evidence is available in the administrative record to assess this pollutant. One of the samples exceed the evaluation guideline. The number of samples is insufficient to determine exceedance with the confidence and power required by the Listing Policy.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list for sedimentation/siltation.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">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. One of two samples exceeded the evaluation guideline used to interpret the water quality objective. At least 28 samples are needed before a pollutant can be considered for removal from the list using the frequencies presented in Table 4.2 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 met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.
Lines of Evidence:	

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	CO - Cold Freshwater Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses. Turbidity shall not be increased more than 20 percent above naturally occurring background

levels. Allowable zones of dilution within which higher percentages can be tolerated may be defined for specific discharges upon the issuance of discharge permits or waiver thereof. Water shall not contain substances in concentrations that result in deposition of material that causes nuisance or adversely affect beneficial uses.

Evaluation Guideline:

The evaluation guideline that has been used to determine turbidity exceedance is from published-peer reviewed paper, "The Effects of Chronic Turbidity on Density and Growth of Steelheads and Coho Salmon", John W Sigler (1984). The guideline is "In our studies, as little as 25 NTUs of turbidity caused a reduction in fish growth."

Data Used to Assess Water Quality:

One sample was taken on 1/13/2003 at 45.7 NTU, which is above the Sigler turbidity evaluation guideline of 25 NTU. The other sample was taken on 3/16/2003 at 21.3 NTU below the guideline. Of the two samples one exceeded the guideline (Sandler, 2004).

Spatial Representation:

Sampling was limited to Mill Creek, a tributary to the Russian River. Samples were taken at 2563 Mill Creek Rd., Healdsburg. There were two samples taken from Mill Creek at this one sampling location.

Temporal Representation:

Samples were taken in January and March 2003.

Environmental Conditions:

Warm Springs HSA is currently listed for sedimentation as part of the Russian River HU, Middle Russian River HA, Dry Creek HSA listing for sedimentation/siltation. This segment will be addressed in the Russian River Sedimentation/Siltation TMDL.

Data Quality Assessment:

Draft QAPP for Volunteer Water Quality Monitoring Project for the Community Clean Water Institute.

Region 1

Water Segment: Russian River HU, Middle Russian River HA, Warm Springs HSA, Lake Sonoma [Reservoir]

Pollutant: Mercury

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 3.5 of the Listing Policy. One line of evidence is available in the administrative record to assess this pollutant.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Twenty-three out of 28 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 4.1 of the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

Beneficial Use: CM - Commercial and Sport Fishing (CA)

Matrix: Tissue

**Water Quality Objective/
Water Quality Criterion:** North Coast RWQCB Basin Plan: All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life.

Evaluation Guideline: OEHHA Screening Value 0.3 µg/g for mercury (Brodberg & Pollock, 1999).

<i>Data Used to Assess Water Quality:</i>	Twenty-three out of 28 samples exceeded. Filet composite and individual samples were collected for the following species: largemouth bass collected in 1992-93, 1995-97, and 2000-01; redear sunfish collected in 1993 and 2001; and black crappie collected in 2001. All but three redear sunfish (2001) samples and two black crappie samples exceeded the guideline (TSMP, 2002).
<i>Spatial Representation:</i>	Three stations were sampled: from the Rockpile Road Bridge upstream 1/2 mile in the Warm Springs Creek arm, in Dry Creek Arm about 3 miles upstream Warm Springs Dam, and at mouth of Warm Springs Creek.
<i>Temporal Representation:</i>	Samples were collected annually in 1992-93, 1995-97 and 2000-01.
<i>Data Quality Assessment:</i>	Toxic Substances Monitoring Program 1992-93 and 1994-95 Data Reports. Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 1996-2000. Department of Fish and Game. Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 1

Water Segment: Russian River HU, Upper Russian River HA, Coyote Valley HSA, Lake Mendocino [Reservoir]

Pollutant: Mercury

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 3.5 of the Listing Policy. One line of evidence is available in the administrative record to assess this pollutant.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Nine of the 16 samples exceeded the OEHHA Screening Value but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Tissue
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA)
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	North Coast RWQCB Basin Plan: All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life.
<i>Evaluation Guideline:</i>	0.3 µg/g (OEHHA Screening Value) (Brodberg & Pollock, 1999).
<i>Data Used to Assess Water Quality:</i>	Nine out of 16 samples exceeded. Seven filet composite samples of largemouth bass, 4 filet individual samples of channel catfish, 2 filet individual samples of rainbow trout, 2 filet composite redear sunfish, and

1 individual sample of striped bass were collected. Largemouth bass were collected in 1993, 2000-01, channel catfish, rainbow trout, striped bass in 2001, and redear sunfish in 1992-93. Six largemouth bass samples, 2 channel catfish samples, and the striped bass sample exceeded the guideline (TSMP, 2002).

Spatial Representation: Two stations were sampled: in the Marina off Highway 20 on the north end of the lake and in cove to the east across from dam (South End).

Temporal Representation: Samples were collected annually in 1992-93, 1999, and 2001.

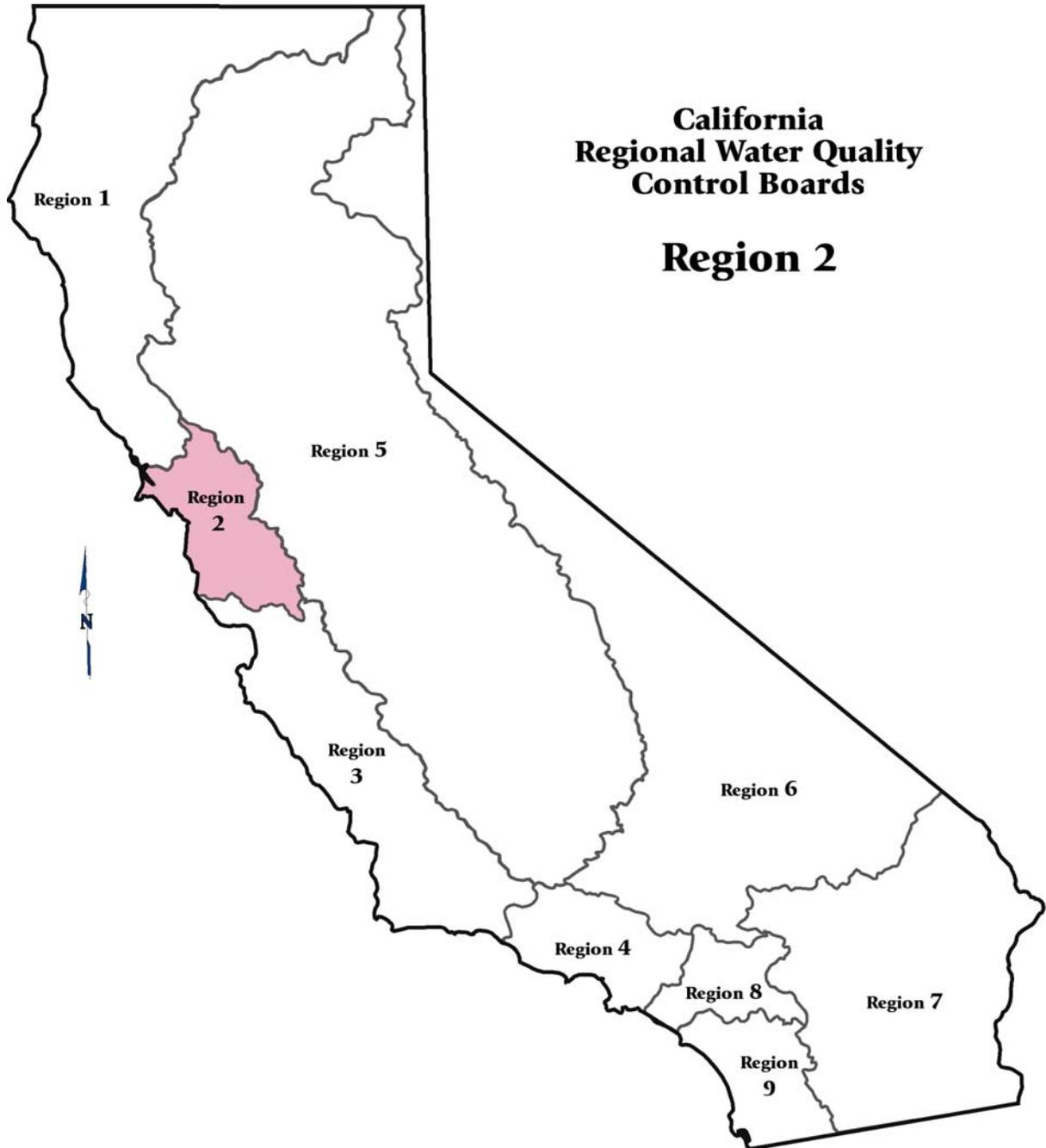
Data Quality Assessment: Toxic Substances Monitoring Program 1992-93 Data Report.

Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 1996-2000. Department of Fish and Game.

Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

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Fact Sheets Supporting “Do Not Delist” Recommendations



September 2006

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New or Revised Fact Sheets

New or Revised Fact Sheets

Region 2

Water Segment:	San Leandro Bay (part of SF Bay, Central)
Pollutant:	Chlordane
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under sections 4.1, 4.6, and 4.9 of the Listing Policy. Under section 4.6 a single line of evidence is necessary to assess listing status while under section 4.9, a minimum of two lines of evidence are needed to assess listing status.</p> <p>Four lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6 the site has significant sediment toxicity and the pollutant is likely to cause or contribute to the toxic effect.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination on the section 303(d) list in the Water Quality Limited Segments category.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy. 2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy. 3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy. 4. All 7 samples exceeded the sediment guideline, 3 of 7 samples exhibit toxicity. This is not enough information to delist based on Table 4.1 of the Listing Policy. 5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

	There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	BPTCP Reference envelope approach.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity in 4 of 7 tests. Significant sea urchin toxicity in 3 of 7 tests (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data was synoptically collected with chemical and toxicity measurements at 7 sampling sites.
<i>Temporal Representation:</i>	Samples were collected during April 1995 and April 1997.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

<i>Numeric Line of Evidence</i>	Population/Community Degradation
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.
	There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	Evaluations of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community.
<i>Data Used to Assess Water Quality:</i>	BPTCP benthic index values were 0.60, 0.60, 0.67, 1.0, and 0.66 (Hunt et al, 1998b).
<i>Spatial Representation:</i>	Five stations. Data was synoptically collected with chemical and toxicity measurements.
<i>Temporal Representation:</i>	Samples were collected in April 1995 and April 1997.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

<i>Numeric Line of Evidence</i>	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment

<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	Effects Range-Median of 6 ng/g was used (Long and Morgan, 1990).
<i>Data Used to Assess Water Quality:</i>	Seven of 7 measurements exceed the ERM (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data was synoptically collected with benthic community and toxicity measurements.
<i>Temporal Representation:</i>	Samples were collected in April 1995 and April 1997.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

<i>Line of Evidence</i>	Narrative Description Data
<i>Beneficial Use</i>	ES - Estuarine Habitat
<i>Information Used to Assess Water Quality:</i>	The 2002 section 303(d) listing for Pesticides is too general to be reviewed. In the data and information available there are many measurements of pesticides. Only Chlordane and Dieldrin have numeric guidelines. The data for these chemicals are presented in fact sheets.

Region 2

Water Segment: San Leandro Bay (part of SF Bay, Central)

Pollutant: Dieldrin

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under sections 4.6 and 4.9 of the Listing Policy. Under section 4.6 a single line of evidence is necessary to assess listing status while under section 4.9, a minimum of two lines of evidence are needed to assess listing status.

Four lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6 the site has significant sediment toxicity and the pollutant is likely to cause or contribute to the toxic effect. The benthic community is not impacted.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination on the section 303(d) list in the Water Quality Limited Segments category.

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Four of 7 samples exceeded the sediment guideline, 3 of 7 samples exhibit toxicity. This is not enough information to delist this water body for this pollutant.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Toxicity

Beneficial Use: ES - Estuarine Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic

organisms.

There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.

<i>Evaluation Guideline:</i>	BPTCP Reference envelope approach.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity in 4 of 7 tests. Significant sea urchin toxicity in 3 of 7 tests (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data was synoptically collected with chemical and toxicity measurements at 7 sampling sites.
<i>Temporal Representation:</i>	Samples were collected during April 1995 and April 1997.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

Numeric Line of Evidence	Population/Community Degradation
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	Evaluations of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community.
<i>Data Used to Assess Water Quality:</i>	BPTCP benthic index values were 0.60, 0.60, 0.67, 1.0, and 0.66 (Hunt et al, 1998b).
<i>Spatial Representation:</i>	Five stations. Data was synoptically collected with chemical and toxicity measurements.
<i>Temporal Representation:</i>	Samples were collected in April 1995 and April 1997.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat

<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	Effects Range-Median of 8 ng/g was used (Long et al., 1995).
<i>Data Used to Assess Water Quality:</i>	Four of 7 measurements exceed the ERM (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data was synoptically collected with benthic community and toxicity measurements.
<i>Temporal Representation:</i>	Samples were collected in April 1995 and April 1997.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

<i>Line of Evidence</i>	Narrative Description Data
<i>Beneficial Use</i>	ES - Estuarine Habitat
<i>Information Used to Assess Water Quality:</i>	The 2002 section 303(d) listing for Pesticides is too general to be reviewed. In the data and information available there are many measurements of pesticides. Only Chlordane and Dieldrin have numeric guidelines. The data for these chemicals are presented in fact sheets.

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Original Fact Sheets

Fact Sheets Not Changed
from September 2005 Version

Region 2

Water Segment: Butano Creek
Pollutant: Sedimentation/Siltation
Decision: Do Not Delist
Weight of Evidence: This pollutant is being considered for delisting under sections 4.9 and 4.11 of the Listing Policy.

Six lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.9, the measurements of benthic community and fish habitat indicate that biological resources are likely not impacted. Only one site was rated marginal for fish habitat and only one sample was rated poor for benthic community. Even though sedimentation continues, its effects are being reduced. Summer measurements of turbidity do not exceed guidelines for the protections of salmonids. There is limited habitat for Coho because of the lack of deep pools, spawning gravels, and large woody debris.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Even though only one fish habitat sample was found to be marginal and one benthic community sample was found to be poor, there are still potential impacts on Coho related to lack of suitable spawning habitat.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB 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 exceeded.

Lines of Evidence:

Numeric Line of Evidence Population/Community Degradation
Beneficial Use: CO - Cold Freshwater Habitat, WA - Warm Freshwater Habitat
Matrix: -N/A
*Water Quality Objective/
Water Quality Criterion:* Basin Plan: The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses

Data Used to Assess Water Quality: One of 4 fish habitat assessments was considered poor habitat quality. Assessments of physical habitat quality, biotic conditions, pool habitat quality, and water quality in the Pescadero-Butano watershed revealed the following overall fisheries habitat conditions currently present in the watershed: (1) Accessible salmonid habitat is fairly abundant throughout the watershed, (2) salmonid habitat quality is higher in the mid and upper Pescadero Creek watershed and lower in the Butano Creek watershed as well as the low gradient reaches of Pescadero Creek, (3) pool habitat is fairly abundant but of limited depth and suboptimal cover, (4) water quality throughout both watersheds is generally adequate for salmonids and other aquatic organisms.

The primary limiting factors with regards to salmonid habitat, based on the sampled reaches, are generally shallow pool depths, limited amounts and frequency of large woody debris, and relatively high levels of fine sediments. These limiting factors are likely to be of greater significance to coho salmon than steelhead. Coho in particular require deep pools with low water velocities and adequate cover for survival and growth while steelhead are more adapted to occupying and foraging in the faster and shallower areas of stream channels. Thus, current habitat conditions in the watershed favor steelhead over coho salmon (SWAMP, 2004).

Spatial Representation: Four stations.

Temporal Representation: Samples collected in 2002 and 2003.

Data Quality Assessment: SWAMP and DFG quality assurance.

Numeric Line of Evidence Population/Community Degradation

Beneficial Use: CO - Cold Freshwater Habitat, WA - Warm Freshwater Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses (SFBRWQCB, 1995).

Evaluation Guideline: Bioassessment protocols from the following publication were used (California Department of Fish and Game, 1999).

Data Used to Assess Water Quality: Metric values from 4 sample sites for taxonomic richness, dominant taxon, members of three major benthic invertebrate families, a sensitive taxa index, the Shannon Diversity index, and tolerance value were scored and the 132 scores (6 scores for each sample site) summed to derive total scores for each site. Total scores were then used to assign "poor", "fair", "good", or "excellent" condition grades to each site along the Creek (Environmental Science Associates, 2004).

Total sample site scores ranged from 6 to 22. The average score was 16, which is equivalent to a "fair" rating. One site was rated "poor." Three sites were rated "good". There were no "fair" or "excellent" rated sites.

Spatial Representation: Four sample sites along the Creek (14 total Pescadero and Butano SWAMP program sites were used).

Temporal Representation: SWAMP assessment made in April 2002.
 DFG assessments made in 1995.
 ESA (Environmental Science Associates) survey made in summer (August 21 to September 24) 2003.

Environmental Conditions: April 2002 SWAMP data is not directly comparable to summer 2003 data. Habitat conditions in summer 2003 were evaluated at each site.

Data Quality Assessment: California Stream Bioassessment Protocols (CDFG 1999) used (in 2002 and 2003 surveys).

Numeric Line of Evidence Pollutant-Water

Beneficial Use: CO - Cold Freshwater Habitat, MU - Municipal & Domestic, WA - Warm Freshwater Habitat

Matrix: Water

*Water Quality Objective/
 Water Quality Criterion:* Basin Plan: Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases from normal background light penetration or turbidity relatable to waste discharge shall not be greater than 10 percent in areas where natural turbidity is greater than 50 NTU). The suspended sediment load and suspended sediment discharge rate of surface waters shall not cause nuisance or adversely affect beneficial uses (SFBRWQCB, 1999).

Evaluation Guideline: Turbidity can be used to estimate the effects of sedimentation. Published sedimentation thresholds can be used. The evaluation guideline that has been selected to determine turbidity exceedance is from published-peer reviewed paper, "The Effects of Chronic Turbidity on Density and Growth of Steelheads and Coho Salmon" (Sigler, et.al., 1984). The guideline is as follows, "In our studies, as little as 25 NTUs (nephelometric turbidity units) of turbidity caused a reduction in fish growth." Sigler also discusses the result of turbidities in the 25-50 NTU range reduced growth and caused more newly emerged salmonids to emigrate from laboratory streams than did clear water. Studies indicate that juvenile coho salmon avoided water with turbidities that exceeded 70 NTU (Bilson and Bilby, 1982). Other research reported that feeding and territorial behavior of juvenile coho salmon were disrupted by short-term exposures (2.5-4.5 days) to turbid water with up to 60 NTU (Meehan, 1991).

Data Used to Assess Water Quality: Zero of 3 samples exceeded the standard (Environmental Science Associates, 2004).

Spatial Representation: Three sample sites along Creek.

Temporal Representation: ESA (Environmental Science Associates) survey made in summer (August 21 to September 24, 2003).

Data Quality Assessment: California Stream Bioassessment Protocols (CDFG 1999) (for supplemental information) used.

Line of Evidence	Testimonial Evidence
<i>Beneficial Use</i>	CO - Cold Freshwater Habitat, WA - Warm Freshwater Habitat
<i>Information Used to Assess Water Quality:</i>	From the RWQCB: (1) There is little suitable habitat at present within the creek for coho salmon, and primary hypothesized limiting factors (for coho) are lack of good cover and deep pools, the second factor of which is in part related to an abundant total and fine sediment supply; (2) Coho salmon are state listed as endangered south of the Golden Gate, and federally listed as threatened. Two-of-three brood years are believed to be extinct within Pescadero and Butano Creeks, and the third brood year appears to have a tenuous presence. (3) Although the steelhead trout run in both creeks does not appear to be immediately threatened by local extinction, run-size is substantially reduced from historical values by a variety of limiting factors including a lack of large woody debris and substantial increase in total and fine sediment supply.

Line of Evidence	Testimonial Evidence
<i>Beneficial Use</i>	CO - Cold Freshwater Habitat, WA - Warm Freshwater Habitat
<i>Information Used to Assess Water Quality:</i>	In 1998 a letter was sent to RWQCB staff from the California Department of Fish and Game requesting that several waters be added to the section 303(d) list because of the threats to Coho salmon and steelhead. The letter states: "...The Federal listing of both Coho salmon and steelhead as threatened species confirms the grave condition of these economically and intrinsically valuable fish populations. ...If these species are to survive, we must act now to improve aquatic habitat where it is most critical, namely in major rivers tributary to the Bay and ocean." The letter goes on to identify siltation as a problem in Pescadero and Butano Creeks. No data are provided or analyzed to support the conclusion that siltation is a water quality problem.
<i>Non-Numeric Objective:</i>	Basin Plan: The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses (SFBRWQCB, 1995).

Line of Evidence	Pollutant-Sediment
<i>Beneficial Use</i>	CO - Cold Freshwater Habitat, WA - Warm Freshwater Habitat
<i>Information Used to Assess Water Quality:</i>	From the RWQCB: More than 80 percent of the estimated total sediment delivery to the channel network during the past two decades is associated with human land use activities. Much of this sediment is controllable (gullies associated with historical hillside agriculture, active and abandoned rural earth-surfaced roads, etc.).
<i>Non-Numeric Objective:</i>	Basin Plan: The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.

Waters shall not contain substances in concentrations that result in the deposition of material that cause nuisance or adversely affect beneficial uses.

Region 2

Water Segment: Central Basin, San Francisco (part of SF Bay, Central)

Pollutant: Mercury

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for delisting under sections 4.6 of the Listing Policy. Under section 4.6 a single line of evidence is necessary to assess listing status.

Two lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, it cannot be determined if the site has significant sediment toxicity or whether the pollutant is likely to cause or contribute to any toxic effect.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies, with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. None of 3 samples exceeded the 2.1 µg/g sediment quality guideline, 1 of 2 samples exhibit toxicity, and these do not meet the minimum data required for delisting as presented in Table 4.1 of the Listing Policy.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Toxicity

Beneficial Use: ES - Estuarine Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

	There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	BPTCP Reference envelope approach.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity in 1 of 2 tests. Urchin toxicity in 1 of 2 samples (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data was synoptically collected with chemical measurements.
<i>Temporal Representation:</i>	Samples collected in December 1995 and April 1997. Temporal distribution of samples is described in the report: Sediment quality and biological effects of San Francisco Bay (Bay Protection and Toxic Cleanup Program), data August 1998.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

<i>Numeric Line of Evidence</i>	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.
	There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	Sediment quality guideline of 2.1 µg/g used (PTI Environmental Services, 1991).
<i>Data Used to Assess Water Quality:</i>	None of 3 samples exceed the sediment quality guideline. Previous BPTCP analyses used a guideline that was a factor of 3 lower than the guideline used in the current analysis (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data was synoptically collected with toxicity measurements.
<i>Temporal Representation:</i>	Samples collected in December 1995 and April 1997. Temporal distribution of samples is described in the report: Sediment quality and biological effects of San Francisco Bay (Bay Protection and Toxic Cleanup Program), data August 1998.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

Region 2

Water Segment:	Central Basin, San Francisco (part of SF Bay, Central)
Pollutant:	Polycyclic Aromatic Hydrocarbons (PAHs)
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for delisting under sections 4.6 of the Listing Policy. Under section 4.6 a single line of evidence is necessary to assess listing status.</p> <p>Two lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, it cannot be determined if the site has significant sediment toxicity or whether the pollutant is likely to cause or contribute to any toxic effect.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The sediment quality guideline used complies, with the requirements of section 6.1.3 of the Policy.2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.4. One of 3 samples exceeded the sediment guideline, 1 of 2 samples exhibit toxicity, and these do not meet the minimum data required for delisting as presented in Table 4.1 of the Listing Policy.5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.
Lines of Evidence:	

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.

<i>Evaluation Guideline:</i>	BPTCP Reference envelope approach.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity in 1 of 2 tests. Urchin toxicity in 1 of 2 samples (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data was synoptically collected with chemical measurements.
<i>Temporal Representation:</i>	Samples collected in December 1995 and April 1997. Temporal distribution of samples is described in the report: Sediment quality and biological effects of San Francisco Bay (Bay Protection and Toxic Cleanup Program), data August 1998.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

<i>Numeric Line of Evidence</i>	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	Effects Range-Median for high molecular weight PAHs of 9,600 ng/g was used (Long et al., 1995). Probable Effects Level for low molecular weight PAHs of 1,442 ng/g was used (MacDonald et al., 1996).
<i>Data Used to Assess Water Quality:</i>	One of 3 samples exceeded the guideline for low molecular weight PAHs. One of 3 samples exceeded the guideline for high molecular weight PAHs (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data was synoptically collected with toxicity measurements.
<i>Temporal Representation:</i>	Samples collected in December 1995 and April 1997. Temporal distribution of samples is described in the report: Sediment quality and biological effects of San Francisco Bay (Bay Protection and Toxic Cleanup Program), data August 1998.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

Region 2

Water Segment: Islais Creek

Pollutant: Ammonia

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under sections 4.6 of the Listing Policy. Under section 4.6 a single line of evidence is necessary to assess delisting status.

Five lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, the site has significant sediment toxicity and the pollutant concentration not exceeds the sediment guideline. The Consolidated Plan is not sufficiently developed to address this problem.

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

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. All samples exceeded the sediment guideline and all samples exhibit toxicity. This exceeds the allowable frequency listed in Table 4.1 of the Listing Policy.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Toxicity

Beneficial Use: ES - Estuarine Habitat, MA - Marine Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic

organisms (SFBRWQCB, 1995).

<i>Evaluation Guideline:</i>	BPTCP Reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity in 3 of 4 samples (75%). Significant urchin toxicity in 4 of 5 samples (80%) (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.
<i>Temporal Representation:</i>	Data was collected from 9/94 - 9/97.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan (Stephenson et al., 1994).

<i>Numeric Line of Evidence</i>	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat, MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms (SFBRWQCB, 1995). There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	BPTCP Reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity in 7 of 18 samples (Battelle Memorial Institute, 2002).
<i>Spatial Representation:</i>	Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.
<i>Temporal Representation:</i>	Data were collected between 1998 and 2000.
<i>Environmental Conditions:</i>	Samples were collected in both wet and dry seasons.
<i>Data Quality Assessment:</i>	Methods used were equivalent to those used in the BPTCP QAPP (Stephenson, et al., 1994). All reported data met QA requirements.

<i>Numeric Line of Evidence</i>	Population/Community Degradation
<i>Beneficial Use:</i>	ES - Estuarine Habitat, MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community

composition, or any other relevant measure of the health of an organism, population, or community.

<i>Evaluation Guideline:</i>	Evaluation of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community.
<i>Data Used to Assess Water Quality:</i>	Relative benthic index = 0.22, 0.25, 0.43 (3 benthic gradient samples) (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.
<i>Temporal Representation:</i>	Data was collected from 9/94 - 9/97.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

<i>Numeric Line of Evidence</i>	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	Effect thresholds for BPTCP toxicity test protocols (unionized ammonia) Purple Urchin Development NOEC 0.07 mg/L (Bay et al., 1993) Purple Urchin Fertilization NOEC >1.4 mg/L (Bay et al., 1993)
<i>Data Used to Assess Water Quality:</i>	Two samples exceeding the thresholds in two total measurements using purple sea urchin tests (Hunt et al., 1998a).
<i>Spatial Representation:</i>	Data was concurrently collected from samples tested for toxicity.
<i>Temporal Representation:</i>	Data was collected in September 1994.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

<i>Numeric Line of Evidence</i>	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.

Evaluation Guideline: Reference envelope approach was used.

Data Used to Assess Water Quality: Two samples, both showed significant toxicity in purple urchin tests (Hunt et al., 1998a).

Spatial Representation: Samples taken from one location.

Temporal Representation: Samples collected in September 1994.

Data Quality Assessment: BPTCP Quality Assurance Project Plan.

Line of Evidence Remedial Program in Place

Beneficial Use ES - Estuarine Habitat

Information Used to Assess Water Quality: The BPTCP Consolidated Toxic Hot Spots Cleanup Plan presents a variety of corrective actions that need to be completed in order for the cove to be remediated. Responsible parties have been identified.

Region 2

Water Segment: Islais Creek

Pollutant: Chlordane

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under sections 4.6 and 4.10 of the Listing Policy. Under section 4.6 a single line of evidence is necessary to assess delisting status while under section 4.10, a minimum of two lines of evidence are needed to assess listing status.

Six lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, the site has significant sediment toxicity and the pollutant concentration not exceeds the sediment guideline. The benthic community is impacted.

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

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Nineteen of 49 samples exceeded the 6 ng/g ERM sediment quality guideline, 14 of 27 samples exhibit toxicity, and these exceed the allowable frequency listed in Table 4.1 of the Listing Policy. The benthic community in this water body is impacted and this pollutant is associated with this impact.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	ERM of 6 ng/g used (Long and Morgan, 1990).
<i>Data Used to Assess Water Quality:</i>	One of 3 samples exceeded ERM (Hunt et al, 1998b).
<i>Spatial Representation:</i>	Data was collected at same locations as benthic community and toxicity samples.
<i>Temporal Representation:</i>	Data was collected in 1997.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	ERM of 6 ng/g used (Long and Morgan, 1990).
<i>Data Used to Assess Water Quality:</i>	Eighteen of 46 samples exceed the ERM (Battelle Memorial Institute, 2002).
<i>Spatial Representation:</i>	Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.
<i>Temporal Representation:</i>	Data were collected between 1998 and 2000.
<i>Data Quality Assessment:</i>	Methods used were equivalent to those used in the BPTCP QAPP. All reported data met QA requirements.

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat, MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms (SFBRWQCB, 1995).
<i>Evaluation Guideline:</i>	BPTCP Reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity in 3 of 4 samples (75%). Significant urchin toxicity in 4 of 5 samples (80%) (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.
<i>Temporal Representation:</i>	Data was collected from 9/94 - 9/97.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan (Stephenson et al., 1994).

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat, MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms (SFBRWQCB, 1995). There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	BPTCP Reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity in 7 of 18 samples (Battelle Memorial Institute, 2002).
<i>Spatial Representation:</i>	Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.
<i>Temporal Representation:</i>	Data were collected between 1998 and 2000.
<i>Environmental Conditions:</i>	Samples were collected in both wet and dry seasons.
<i>Data Quality Assessment:</i>	Methods used were equivalent to those used in the BPTCP QAPP (Stephenson, et al., 1994). All reported data met QA requirements.

Numeric Line of Evidence	Population/Community Degradation
<i>Beneficial Use:</i>	ES - Estuarine Habitat, MA - Marine Habitat

<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	Evaluation of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community.
<i>Data Used to Assess Water Quality:</i>	Relative benthic index = 0.22, 0.25, 0.43 (3 benthic gradient samples) (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.
<i>Temporal Representation:</i>	Data was collected from 9/94 - 9/97.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

<i>Line of Evidence</i>	Remedial Program in Place
<i>Beneficial Use</i>	ES - Estuarine Habitat
<i>Information Used to Assess Water Quality:</i>	The BPTCP Consolidated Toxic Hot Spots Cleanup Plan presents a variety of corrective actions that need to be completed in order for the cove to be remediated. Responsible parties have been identified.

Region 2

Water Segment: Islais Creek

Pollutant: Dieldrin

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under sections 4.6 and 4.9 of the Listing Policy. Under section 4.6 a single line of evidence is necessary to assess delisting status while under section 4.9, a minimum of two lines of evidence are needed to assess listing status.

Six lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, the site has significant sediment toxicity and the pollutant concentration exceeds the sediment guideline. The benthic community is impacted.

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

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Seven of 49 samples exceeded the 8 ng/g ERM sediment quality guideline, 14 of 27 samples exhibit toxicity, and these exceed the allowable frequency listed in Table 4.1 of the Listing Policy. The benthic community in this water body is impacted and this pollutant is associated with this impact.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	ERM of 8 ng/g used (Long et al., 1995).
<i>Data Used to Assess Water Quality:</i>	One of 3 samples exceeded ERM (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data was collected at same locations as benthic community and toxicity samples.
<i>Temporal Representation:</i>	Data was collected in 1997.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	ERM of 8 ng/g used (Long et al., 1995).
<i>Data Used to Assess Water Quality:</i>	Six of 46 samples exceeded the ERM (Battelle Memorial Institute, 2002).
<i>Spatial Representation:</i>	Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.
<i>Temporal Representation:</i>	Samples were collected between 1998 and 2000.
<i>Data Quality Assessment:</i>	Methods used were equivalent to those used in the BPTCP QAPP. All reported data met QA requirements.

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat, MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms (SFBRWQCB, 1995).
<i>Evaluation Guideline:</i>	BPTCP Reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity in 3 of 4 samples (75%). Significant urchin toxicity in 4 of 5 samples (80%) (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.
<i>Temporal Representation:</i>	Data was collected from 9/94 - 9/97.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan (Stephenson et al., 1994).

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat, MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms (SFBRWQCB, 1995). There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	BPTCP Reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity in 7 of 18 samples (Battelle Memorial Institute, 2002).
<i>Spatial Representation:</i>	Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.
<i>Temporal Representation:</i>	Data were collected between 1998 and 2000.
<i>Environmental Conditions:</i>	Samples were collected in both wet and dry seasons.
<i>Data Quality Assessment:</i>	Methods used were equivalent to those used in the BPTCP QAPP (Stephenson, et al., 1994). All reported data met QA requirements.

Numeric Line of Evidence	Population/Community Degradation
<i>Beneficial Use:</i>	ES - Estuarine Habitat, MA - Marine Habitat

<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	Evaluation of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community.
<i>Data Used to Assess Water Quality:</i>	Relative benthic index = 0.22, 0.25, 0.43 (3 benthic gradient samples) (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.
<i>Temporal Representation:</i>	Data was collected from 9/94 - 9/97.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

<i>Line of Evidence</i>	Remedial Program in Place
<i>Beneficial Use</i>	ES - Estuarine Habitat
<i>Information Used to Assess Water Quality:</i>	The BPTCP Consolidated Toxic Hot Spots Cleanup Plan presents a variety of corrective actions that need to be completed in order for the cove to be remediated. Responsible parties have been identified.

Region 2

Water Segment: Islais Creek

Pollutant: Sulfide-Hydrogen Sulfide

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under sections 4.6 of the Listing Policy. Under section 4.6 a single line of evidence is necessary to assess delisting status.

Two lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, the site has significant sediment toxicity and the pollutant concentration does not exceed the sediment guideline.

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

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. All samples in the two lines of evidence exhibited significant toxicity and this exceeds the allowable frequency listed in Table 4.1 of the Listing Policy.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Toxicity

Beneficial Use: ES - Estuarine Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms (SFBWQCB, 1995).

Evaluation Guideline: Effect thresholds for BPTCP toxicity test protocols

	Eohaustorius LOEC 0.114 mg/L (Knezovich et al., 1996) Mytilus LOEC 0.0053 mg/L (Hunt et al., 1998) Rhepoxynius LOEC 0.087 mg/L (Hunt et al., 1998) Purple Urchin Development LOEC 0.0076 mg/L (Knezovich et al., 1996) Purple Urchin Fertilization LOEC 0.007-0.014 NOEC (Bay et al., 1993)
<i>Data Used to Assess Water Quality:</i>	Six samples exceeding the threshold in six total measurements. Eohaustorius and purple urchin tests (Hunt et al., 1998a).
<i>Spatial Representation:</i>	Data was concurrently collected from samples tested for toxicity.
<i>Temporal Representation:</i>	Data was collected in September 1994.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan (SWRCB, 1994).

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms (SFBRWQCB, 1995).
<i>Evaluation Guideline:</i>	BPTCP Reference envelope approach was used.
<i>Data Used to Assess Water Quality:</i>	Six samples, all showed significant toxicity (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Samples taken from one location.
<i>Temporal Representation:</i>	Samples collected in September 1994.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan (Stephenson et al., 1994).

Line of Evidence	Remedial Program in Place
<i>Beneficial Use</i>	ES - Estuarine Habitat
<i>Information Used to Assess Water Quality:</i>	The BPTCP Consolidated Toxic Hot Spots Cleanup Plan presents a variety of corrective actions that need to be completed in order for the cove to be remediated. Responsible parties have been identified.

Region 2

Water Segment: Mission Creek

Pollutant: Chlordane

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under sections 4.6 and 4.9 of the Listing Policy. Under section 4.6 a single line of evidence is necessary to assess delisting status while under section 4.9, a minimum of two lines of evidence are needed to assess listing status.

Six lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, the site has significant sediment toxicity and the pollutant concentration exceeds the sediment guideline. The benthic community is impacted and the pollutant is associated with the impact.

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

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Twenty-nine of 47 samples exceeded the sediment guideline, 7 of 26 samples exhibit toxicity, and these exceed the allowable frequency listed in Table 4.1 of the Listing Policy. The benthic community in this water body is impacted and this pollutant is associated with this impact.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	ERM of 6 ng/g used (Long and Morgan, 1990).
<i>Data Used to Assess Water Quality:</i>	Two of 3 sample measurements exceed the sediment guideline (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data were collected concurrently with benthic community and toxicity measurements.
<i>Temporal Representation:</i>	Data was collected, from 5/95-4/97.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	ERM of 6 ng/g used (Long and Morgan, 1990).
<i>Data Used to Assess Water Quality:</i>	Twenty-eight of 44 samples exceeded the ERM (Battelle Memorial Institute, 2002).
<i>Spatial Representation:</i>	Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.
<i>Temporal Representation:</i>	Data were collected between 1998 and 2000.
<i>Data Quality Assessment:</i>	Methods used were equivalent to those used in the BPTCP QAPP. All reported data met QA requirements.

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	BPTCP reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	BPTCP Data: Significant amphipod toxicity, 3 of 5 tests (60%) significant urchin toxicity (Hunt et al., 1998b). SWRCB received "Sediment Investigations at Islais Creek and Mission Creek-1998-1999-2000" provided by SFPUC. Six transects were monitored over three years and at corresponding North and South sampling stations for each transect (i.e. 1N, 1S). Excluding stations 5 and 6 (No data for 1999 and 2000), the data shows 4 of 20 sampling stations (1N/S-4N/S) indicate sediment toxicity and amphipod survival below the BPTCP reference tolerance limit (Battelle Memorial Institute, 2002).
<i>Spatial Representation:</i>	Data were collected concurrently with benthic and chemical measurements.
<i>Temporal Representation:</i>	Data was collected from 5/95-4/97.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan. SWRCB received "Sediment Investigations at Islais Creek and Mission Creek-1998-1999-2000" provided by SFPUC. Appropriate QA procedures were followed.

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community (BPTCP, 1998).
<i>Evaluation Guideline:</i>	BPTCP reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity was observed in 4 of 21 samples. Observed toxicity was recorded in the year 2000 only (Battelle Memorial Institute,

2002).

Spatial Representation: Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.

Temporal Representation: Data were collected between 1998 and 2000.

Numeric Line of Evidence Population/Community Degradation

Beneficial Use: ES - Estuarine Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.

Evaluation Guideline: Evaluation of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community (BPTCP, 1998).

Data Used to Assess Water Quality: Relative benthic index = 0.00, 0.34, and 0.65 (3 benthic gradient samples) (Hunt et al, 1998b).

Spatial Representation: Data were collected concurrently with toxicity and chemical samples.

Temporal Representation: Data was collected, from 5/95-4/97.

Data Quality Assessment: BPTCP Quality Assurance Project Plan.

Line of Evidence Remedial Program in Place

Beneficial Use ES - Estuarine Habitat

Information Used to Assess Water Quality: The BPTCP Consolidated Toxic Hot Spots Cleanup Plan presents a variety of corrective actions that need to be completed in order for the cove to be remediated. Responsible parties have been identified.

Region 2

Water Segment: Mission Creek

Pollutant: Dieldrin

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under sections 4.6 and 4.9 of the Listing Policy. Under section 4.6 a single line of evidence is necessary to assess delisting status while under section 4.9, a minimum of two lines of evidence are needed to assess listing status.

Six lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, the site has significant sediment toxicity and the pollutant concentration exceeds the sediment guideline. The benthic community is impacted and the pollutant is associated with the impact.

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

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Seventeen of 49 samples exceeded the 8 ng/g ERM sediment quality guideline, 7 of 26 samples exhibit toxicity, and these exceed the allowable frequency listed in Table 4.1 of the Listing Policy. The benthic community in this water body is impacted and this pollutant is associated with this impact.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	ERM of 8 ng/g used (Long et al., 1995).
<i>Data Used to Assess Water Quality:</i>	One of 5 samples exceeded the guideline (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data were collected concurrently with benthic community and toxicity measurements.
<i>Temporal Representation:</i>	Data was collected from 5/95-4/97.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	ERM of 8 ng/g used (Long et al., 1995).
<i>Data Used to Assess Water Quality:</i>	Sixteen of 44 samples exceeded the ERM (Battelle Memorial Institute, 2002).
<i>Spatial Representation:</i>	Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.
<i>Temporal Representation:</i>	Data were collected between 1998 and 2000.
<i>Data Quality Assessment:</i>	Methods used were equivalent to those used in the BPTCP QAPP. All reported data met QA requirements.

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	BPTCP reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	BPTCP Data: Significant amphipod toxicity, 3 of 5 tests (60%) significant urchin toxicity (Hunt et al., 1998b). SWRCB received "Sediment Investigations at Islais Creek and Mission Creek-1998-1999-2000" provided by SFPUC. Six transects were monitored over three years and at corresponding North and South sampling stations for each transect (i.e. 1N, 1S). Excluding stations 5 and 6 (No data for 1999 and 2000), the data shows 4 of 20 sampling stations (1N/S-4N/S) indicate sediment toxicity and amphipod survival below the BPTCP reference tolerance limit (Battelle Memorial Institute, 2002).
<i>Spatial Representation:</i>	Data were collected concurrently with benthic and chemical measurements.
<i>Temporal Representation:</i>	Data was collected from 5/95-4/97.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan. SWRCB received "Sediment Investigations at Islais Creek and Mission Creek-1998-1999-2000" provided by SFPUC. Appropriate QA procedures were followed.

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community (BPTCP, 1998).
<i>Evaluation Guideline:</i>	BPTCP reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity was observed in 4 of 21 samples. Observed toxicity was recorded in the year 2000 only (Battelle Memorial Institute,

2002).

Spatial Representation: Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.

Temporal Representation: Data were collected between 1998 and 2000.

Numeric Line of Evidence Population/Community Degradation

Beneficial Use: ES - Estuarine Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.

Evaluation Guideline: Evaluation of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community (BPTCP, 1998).

Data Used to Assess Water Quality: Relative benthic index = 0.00, 0.34, and 0.65 (3 benthic gradient samples) (Hunt et al, 1998b).

Spatial Representation: Data were collected concurrently with toxicity and chemical samples.

Temporal Representation: Data was collected, from 5/95-4/97.

Data Quality Assessment: BPTCP Quality Assurance Project Plan.

Line of Evidence Remedial Program in Place

Beneficial Use ES - Estuarine Habitat

Information Used to Assess Water Quality: The BPTCP Consolidated Toxic Hot Spots Cleanup Plan presents a variety of corrective actions that need to be completed in order for the cove to be remediated. Responsible parties have been identified.

Region 2

Water Segment: Mission Creek

Pollutant: Lead

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under sections 4.6 and 4.9 of the Listing Policy. Under section 4.6 a single line of evidence is necessary to assess delisting status while under section 4.9, a minimum of two lines of evidence are needed to assess listing status.

Six lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, the site has significant sediment toxicity and the pollutant concentration exceeds the sediment guideline. The benthic community is impacted and the pollutant is associated with the impact.

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

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Twenty-seven of 47 samples exceeded the 112.18 µg/g PEL sediment quality guideline, 7 of 26 samples exhibit toxicity, and these exceed the allowable frequency listed in Table 4.1 of the Listing Policy. The benthic community in this water body is impacted and this pollutant is associated with this impact.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	Probable Effects Level of 112.18 µg/g was used (MacDonald et al., 1996).
<i>Data Used to Assess Water Quality:</i>	Two of 3 samples exceeded the sediment guideline (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data were collected concurrently with benthic community and toxicity measurements.
<i>Temporal Representation:</i>	Data was collected in 1997.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	Probable Effects Level of 112.18 µg/g was used (MacDonald et al., 1996).
<i>Data Used to Assess Water Quality:</i>	Twenty-five of 44 samples exceeded the Probable Effects Level (Battelle Memorial Institute, 2002).
<i>Spatial Representation:</i>	Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.
<i>Temporal Representation:</i>	Data were collected between 1998 and 2000.

Data Quality Assessment: Methods used were equivalent to those used in the BPTCP QAPP. All reported data met QA requirements.

Numeric Line of Evidence Toxicity

Beneficial Use: ES - Estuarine Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.

Evaluation Guideline: BPTCP reference envelope approach used.

Data Used to Assess Water Quality: BPTCP Data: Significant amphipod toxicity, 3 of 5 tests (60%) significant urchin toxicity (Hunt et al., 1998b). SWRCB received "Sediment Investigations at Islais Creek and Mission Creek-1998-1999-2000" provided by SFPUC. Six transects were monitored over three years and at corresponding North and South sampling stations for each transect (i.e. 1N, 1S). Excluding stations 5 and 6 (No data for 1999 and 2000), the data shows 4 of 20 sampling stations (1N/S-4N/S) indicate sediment toxicity and amphipod survival below the BPTCP reference tolerance limit (Battelle Memorial Institute, 2002).

Spatial Representation: Data were collected concurrently with benthic and chemical measurements.

Temporal Representation: Data was collected from 5/95-4/97.

Data Quality Assessment: BPTCP Quality Assurance Project Plan. SWRCB received "Sediment Investigations at Islais Creek and Mission Creek-1998-1999-2000" provided by SFPUC. Appropriate QA procedures were followed.

Numeric Line of Evidence Toxicity

Beneficial Use: ES - Estuarine Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community (BPTCP, 1998).

Evaluation Guideline: BPTCP reference envelope approach used.

Data Used to Assess Water Quality: Significant amphipod toxicity was observed in 4 of 21 samples. Observed toxicity was recorded in the year 2000 only (Battelle Memorial Institute, 2002).

Spatial Representation: Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.

Temporal Representation: Data were collected between 1998 and 2000.

Numeric Line of Evidence Population/Community Degradation

Beneficial Use: ES - Estuarine Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.

Evaluation Guideline: Evaluation of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community (BPTCP, 1998).

Data Used to Assess Water Quality: Relative benthic index = 0.00, 0.34, and 0.65 (3 benthic gradient samples) (Hunt et al, 1998b).

Spatial Representation: Data were collected concurrently with toxicity and chemical samples.

Temporal Representation: Data was collected, from 5/95-4/97.

Data Quality Assessment: BPTCP Quality Assurance Project Plan.

Line of Evidence Remedial Program in Place

Beneficial Use ES - Estuarine Habitat

Information Used to Assess Water Quality: The BPTCP Consolidated Toxic Hot Spots Cleanup Plan presents a variety of corrective actions that need to be completed in order for the cove to be remediated. Responsible parties have been identified.

Region 2

Water Segment: Mission Creek

Pollutant: Mercury

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under sections 4.6 and 4.9 of the Listing Policy. Under section 4.6 a single line of evidence is necessary to assess delisting status while under section 4.9, a minimum of two lines of evidence are needed to assess listing status.

Six lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, the site has significant sediment toxicity and the pollutant concentration exceeds the sediment guideline. The benthic community is impacted and the pollutant is associated with the impact.

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

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Five of 47 samples exceeded the 2.1 µg/g sediment quality guideline, 7 of 26 samples exhibit toxicity, and these exceed the allowable frequency listed in Table 4.1 of the Listing Policy. The benthic community in this water body is impacted and this pollutant is associated with this impact.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Sediment

Beneficial Use: ES - Estuarine Habitat

Matrix: Sediment

<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	Sediment guideline of 2.1 µg/g was used (PTI Environmental Services, 1991).
<i>Data Used to Assess Water Quality:</i>	One of 3 samples exceeded guideline (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data were collected concurrently with benthic community and toxicity samples.
<i>Temporal Representation:</i>	Data was collected, from 5/95-4/97.

<i>Numeric Line of Evidence</i>	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	Sediment guideline of 2.1 µg/g was used (PTI Environmental Services, 1991).
<i>Data Used to Assess Water Quality:</i>	Four of 44 samples exceeded the sediment quality guideline (Battelle Memorial Institute, 2002).
<i>Spatial Representation:</i>	Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.
<i>Temporal Representation:</i>	Data were collected between 1998 and 2000.
<i>Data Quality Assessment:</i>	Methods used were equivalent to those used in the BPTCP QAPP. All reported data met QA requirements.

<i>Numeric Line of Evidence</i>	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment

<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	BPTCP reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	BPTCP Data: Significant amphipod toxicity, 3 of 5 tests (60%) significant urchin toxicity (Hunt et al., 1998b). SWRCB received "Sediment Investigations at Islais Creek and Mission Creek-1998-1999-2000" provided by SFPUC. Six transects were monitored over three years and at corresponding North and South sampling stations for each transect (i.e. 1N, 1S). Excluding stations 5 and 6 (No data for 1999 and 2000), the data shows 4 of 20 sampling stations (1N/S-4N/S) indicate sediment toxicity and amphipod survival below the BPTCP reference tolerance limit (Battelle Memorial Institute, 2002).
<i>Spatial Representation:</i>	Data were collected concurrently with benthic and chemical measurements.
<i>Temporal Representation:</i>	Data was collected from 5/95-4/97.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan. SWRCB received "Sediment Investigations at Islais Creek and Mission Creek-1998-1999-2000" provided by SFPUC. Appropriate QA procedures were followed.

<i>Numeric Line of Evidence</i>	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community (BPTCP, 1998).
<i>Evaluation Guideline:</i>	BPTCP reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity was observed in 4 of 21 samples. Observed toxicity was recorded in the year 2000 only (Battelle Memorial Institute, 2002).
<i>Spatial Representation:</i>	Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.
<i>Temporal Representation:</i>	Data were collected between 1998 and 2000.

Numeric Line of Evidence	Population/Community Degradation
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	Evaluation of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community (BPTCP, 1998).
<i>Data Used to Assess Water Quality:</i>	Relative benthic index = 0.00, 0.34, and 0.65 (3 benthic gradient samples) (Hunt et al, 1998b).
<i>Spatial Representation:</i>	Data were collected concurrently with toxicity and chemical samples.
<i>Temporal Representation:</i>	Data was collected, from 5/95-4/97.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

Line of Evidence	Remedial Program in Place
<i>Beneficial Use</i>	ES - Estuarine Habitat
<i>Information Used to Assess Water Quality:</i>	The BPTCP Consolidated Toxic Hot Spots Cleanup Plan presents a variety of corrective actions that need to be completed in order for the cove to be remediated. Responsible parties have been identified.

Region 2

Water Segment: Mission Creek

Pollutant: Polychlorinated biphenyls

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under sections 4.6 and 4.9 of the Listing Policy. Under section 4.6 a single line of evidence is necessary to assess delisting status while under section 4.9, a minimum of two lines of evidence are needed to assess listing status.

Six lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, the site has significant sediment toxicity and the pollutant concentration exceeds the sediment guideline. The benthic community is impacted and the pollutant is associated with the impact.

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

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Ten of 47 samples exceeded the 400 ng/g sediment sediment guideline, 7 of 26 samples exhibit toxicity, and these exceed the allowable frequency listed in Table 4.1 of the Listing Policy. The benthic community in this water body is impacted and this pollutant is associated with this impact.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	Sediment guideline of 400 ng/g used (MacDonald et al., 2000).
<i>Data Used to Assess Water Quality:</i>	BPTCP Data: Two of 3 samples exceeded the sediment quality guideline. SWRCB received "Sediment Investigations at Islais Creek and Mission Creek-1998-1999-2000" provided by SFPUC. Six transects were monitored over three years and at corresponding North and South sampling stations for each transect (i.e. 1N, 1S). Levels of PCBs at the highest detected levels at transect sampling stations 1N/S-4N/S with some pollutants in exceedance of the ERMs in 1998 only (Battelle Memorial Institute, 2002).
<i>Spatial Representation:</i>	BPTPC data collected concurrently with benthic and toxicity data.
<i>Temporal Representation:</i>	Data was collected, from 5/95-4/97.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	Sediment guideline of 400 ng/g used (MacDonald et al., 2000).
<i>Data Used to Assess Water Quality:</i>	Eight of 44 samples exceeded the sediment quality guideline (Battelle Memorial institute, 2002).

Spatial Representation: Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.

Temporal Representation: Data were collected between 1998 and 2000.

Data Quality Assessment: Methods used were equivalent to those used in the BPTCP QAPP. All reported data met QA requirements.

Numeric Line of Evidence Toxicity

Beneficial Use: ES - Estuarine Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.

Evaluation Guideline: BPTCP reference envelope approach used.

Data Used to Assess Water Quality: BPTCP Data: Significant amphipod toxicity, 3 of 5 tests (60%) significant urchin toxicity (Hunt et al., 1998b). SWRCB received "Sediment Investigations at Islais Creek and Mission Creek-1998-1999-2000" provided by SFPUC. Six transects were monitored over three years and at corresponding North and South sampling stations for each transect (i.e. 1N, 1S). Excluding stations 5 and 6 (No data for 1999 and 2000), the data shows 4 of 20 sampling stations (1N/S-4N/S) indicate sediment toxicity and amphipod survival below the BPTCP reference tolerance limit (Battelle Memorial Institute, 2002).

Spatial Representation: Data were collected concurrently with benthic and chemical measurements.

Temporal Representation: Data was collected from 5/95-4/97.

Data Quality Assessment: BPTCP Quality Assurance Project Plan. SWRCB received "Sediment Investigations at Islais Creek and Mission Creek-1998-1999-2000" provided by SFPUC. Appropriate QA procedures were followed.

Numeric Line of Evidence Toxicity

Beneficial Use: ES - Estuarine Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community

	composition, or any other relevant measure of the health of an organism, population, or community (BPTCP, 1998).
<i>Evaluation Guideline:</i>	BPTCP reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity was observed in 4 of 21 samples. Observed toxicity was recorded in the year 2000 only (Battelle Memorial Institute, 2002).
<i>Spatial Representation:</i>	Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.
<i>Temporal Representation:</i>	Data were collected between 1998 and 2000.

Numeric Line of Evidence	Population/Community Degradation
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	Evaluation of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community (BPTCP, 1998).
<i>Data Used to Assess Water Quality:</i>	Relative benthic index = 0.00, 0.34, and 0.65 (3 benthic gradient samples) (Hunt et al, 1998b).
<i>Spatial Representation:</i>	Data were collected concurrently with toxicity and chemical samples.
<i>Temporal Representation:</i>	Data was collected, from 5/95-4/97.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

Line of Evidence	Remedial Program in Place
<i>Beneficial Use</i>	ES - Estuarine Habitat
<i>Information Used to Assess Water Quality:</i>	The BPTCP Consolidated Toxic Hot Spots Cleanup Plan presents a variety of corrective actions that need to be completed in order for the cove to be remediated. Responsible parties have been identified.

Region 2

Water Segment: Mission Creek

Pollutant: Polycyclic Aromatic Hydrocarbons (PAHs)

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under sections 4.6 and 4.9 of the Listing Policy. Under section 4.6 a single line of evidence is necessary to assess delisting status while under section 4.9, a minimum of two lines of evidence are needed to assess listing status.

Six lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, the site has significant sediment toxicity and the pollutant concentration exceeds the sediment guideline. The benthic community is impacted and the pollutant is associated with the impact.

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

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Thirteen of 47 samples exceeded the 9,600 ng/g ERM sediment quality guideline, 7 of 26 samples exhibit toxicity, and these exceed the allowable frequency listed in Table 4.1 of the Listing Policy. The benthic community in this water body is impacted and this pollutant is associated with this impact.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	ERM of 9,600 ng/g used (Long et al., 1995).
<i>Data Used to Assess Water Quality:</i>	Two of 3 samples exceeded sediment guideline (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data were collected concurrently with benthic and toxicity measurements.
<i>Temporal Representation:</i>	Data was collected, from 5/95-4/97.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	ERM of 9,600 ng/g used (Long et al., 1995).
<i>Data Used to Assess Water Quality:</i>	Eleven of 44 samples exceeded the ERM (Battelle Memorial institute, 2002).
<i>Spatial Representation:</i>	Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.
<i>Temporal Representation:</i>	Data were collected between 1998 and 2000.
<i>Data Quality Assessment:</i>	Methods used were equivalent to those used in the BPTCP QAPP. All reported data met QA requirements.

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	BPTCP reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	BPTCP Data: Significant amphipod toxicity, 3 of 5 tests (60%) significant urchin toxicity (Hunt et al., 1998b). SWRCB received "Sediment Investigations at Islais Creek and Mission Creek-1998-1999-2000" provided by SFPUC. Six transects were monitored over three years and at corresponding North and South sampling stations for each transect (i.e. 1N, 1S). Excluding stations 5 and 6 (No data for 1999 and 2000), the data shows 4 of 20 sampling stations (1N/S-4N/S) indicate sediment toxicity and amphipod survival below the BPTCP reference tolerance limit (Battelle Memorial Institute, 2002).
<i>Spatial Representation:</i>	Data were collected concurrently with benthic and chemical measurements.
<i>Temporal Representation:</i>	Data was collected from 5/95-4/97.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan. SWRCB received "Sediment Investigations at Islais Creek and Mission Creek-1998-1999-2000" provided by SFPUC. Appropriate QA procedures were followed.

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community (BPTCP, 1998).
<i>Evaluation Guideline:</i>	BPTCP reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity was observed in 4 of 21 samples. Observed toxicity was recorded in the year 2000 only (Battelle Memorial Institute,

2002).

Spatial Representation: Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.

Temporal Representation: Data were collected between 1998 and 2000.

Numeric Line of Evidence Population/Community Degradation

Beneficial Use: ES - Estuarine Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.

Evaluation Guideline: Evaluation of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community (BPTCP, 1998).

Data Used to Assess Water Quality: Relative benthic index = 0.00, 0.34, and 0.65 (3 benthic gradient samples) (Hunt et al, 1998b).

Spatial Representation: Data were collected concurrently with toxicity and chemical samples.

Temporal Representation: Data was collected, from 5/95-4/97.

Data Quality Assessment: BPTCP Quality Assurance Project Plan.

Line of Evidence Remedial Program in Place

Beneficial Use ES - Estuarine Habitat

Information Used to Assess Water Quality: The BPTCP Consolidated Toxic Hot Spots Cleanup Plan presents a variety of corrective actions that need to be completed in order for the cove to be remediated. Responsible parties have been identified.

Region 2

Water Segment: Mission Creek

Pollutant: Silver

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under sections 4.6 and 4.9 of the Listing Policy. Under section 4.6 a single line of evidence is necessary to assess delisting status while under section 4.9, a minimum of two lines of evidence are needed to assess listing status.

Six lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, the site has significant sediment toxicity and the pollutant concentration not exceeds the sediment guideline. The benthic community is impacted.

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

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Sixteen of 49 samples exceeded the 1.77 µg/g PEL sediment quality guideline, 7 of 26 samples exhibit toxicity, and these exceed the allowable frequency listed in Table 4.1 of the Listing Policy. The benthic community in this water body is impacted and this pollutant is associated with this impact.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	PEL of 1.77 µg/g used (MacDonald et al., 1996).
<i>Data Used to Assess Water Quality:</i>	One of 3 samples exceed sediment guideline (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data were collected concurrently with benthic community and toxicity measurements.
<i>Temporal Representation:</i>	Data was collected in 1997.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community. Data were collected between 1998 and 2000.
<i>Evaluation Guideline:</i>	PEL of 1.77 µg/g used (MacDonald et al., 1996).
<i>Data Used to Assess Water Quality:</i>	Fifteen of 44 samples exceeded the PEL (Battelle Memorial Institute, 2002).
<i>Spatial Representation:</i>	Data was synoptically collected with benthic community and toxicity

measurements over the length of the creek.
Temporal Representation: Data were collected between 1998 and 2000.
Data Quality Assessment: Methods used were equivalent to those used in the BPTCP QAPP. All reported data met QA requirements.

Numeric Line of Evidence Toxicity
Beneficial Use: ES - Estuarine Habitat
Matrix: Sediment
*Water Quality Objective/
Water Quality Criterion:* All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.

Evaluation Guideline: BPTCP reference envelope approach used.

Data Used to Assess Water Quality: BPTCP Data: Significant amphipod toxicity, 3 of 5 tests (60%) significant urchin toxicity (Hunt et al., 1998b). SWRCB received "Sediment Investigations at Islais Creek and Mission Creek-1998-1999-2000" provided by SFPUC. Six transects were monitored over three years and at corresponding North and South sampling stations for each transect (i.e. 1N, 1S). Excluding stations 5 and 6 (No data for 1999 and 2000), the data shows 4 of 20 sampling stations (1N/S-4N/S) indicate sediment toxicity and amphipod survival below the BPTCP reference tolerance limit (Battelle Memorial Institute, 2002).

Spatial Representation: Data were collected concurrently with benthic and chemical measurements.

Temporal Representation: Data was collected from 5/95-4/97.

Data Quality Assessment: BPTCP Quality Assurance Project Plan. SWRCB received "Sediment Investigations at Islais Creek and Mission Creek-1998-1999-2000" provided by SFPUC. Appropriate QA procedures were followed.

Numeric Line of Evidence Toxicity
Beneficial Use: ES - Estuarine Habitat
Matrix: Sediment
*Water Quality Objective/
Water Quality Criterion:* All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism,

	population, or community (BPTCP, 1998).
<i>Evaluation Guideline:</i>	BPTCP reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity was observed in 4 of 21 samples. Observed toxicity was recorded in the year 2000 only (Battelle Memorial Institute, 2002).
<i>Spatial Representation:</i>	Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.
<i>Temporal Representation:</i>	Data were collected between 1998 and 2000.

<i>Numeric Line of Evidence</i>	Population/Community Degradation
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	Evaluation of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community (BPTCP, 1998).
<i>Data Used to Assess Water Quality:</i>	Relative benthic index = 0.00, 0.34, and 0.65 (3 benthic gradient samples) (Hunt et al, 1998b).
<i>Spatial Representation:</i>	Data were collected concurrently with toxicity and chemical samples.
<i>Temporal Representation:</i>	Data was collected, from 5/95-4/97.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

<i>Line of Evidence</i>	Remedial Program in Place
<i>Beneficial Use</i>	ES - Estuarine Habitat
<i>Information Used to Assess Water Quality:</i>	The BPTCP Consolidated Toxic Hot Spots Cleanup Plan presents a variety of corrective actions that need to be completed in order for the cove to be remediated. Responsible parties have been identified.

Region 2

Water Segment: Mission Creek

Pollutant: Zinc

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under sections 4.6 and 4.9 of the Listing Policy. Under section 4.6 a single line of evidence is necessary to assess delisting status while under section 4.9, a minimum of two lines of evidence are needed to assess listing status.

Six lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, the site has significant sediment toxicity and the pollutant concentration exceeds the sediment guideline. The benthic community is impacted and the pollutant is associated with the impact.

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

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Nine of 47 samples exceeded the sediment guideline, 7 of 26 samples exhibit toxicity, and these exceed the allowable frequency listed in Table 4.1 of the Listing Policy. The benthic community in this water body is impacted and this pollutant is associated with this impact.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	ERM of 410 µg/g used (Long et al., 1995).
<i>Data Used to Assess Water Quality:</i>	One of 3 samples exceeded the ERM (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data were collected concurrently with benthic community and toxicity measurements.
<i>Temporal Representation:</i>	Data was collected in 1997.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	ERM of 410 µg/g used (Long et al., 1995).
<i>Data Used to Assess Water Quality:</i>	Eight of 44 samples exceeded the ERM (Battelle Memorial Institute, 2002).
<i>Spatial Representation:</i>	Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.
<i>Temporal Representation:</i>	Data were collected between 1998 and 2000.
<i>Data Quality Assessment:</i>	Methods used were equivalent to those used in the BPTCP QAPP. All reported data met QA requirements.

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	BPTCP reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	BPTCP Data: Significant amphipod toxicity, 3 of 5 tests (60%) significant urchin toxicity (Hunt et al., 1998b). SWRCB received "Sediment Investigations at Islais Creek and Mission Creek-1998-1999-2000" provided by SFPUC. Six transects were monitored over three years and at corresponding North and South sampling stations for each transect (i.e. 1N, 1S). Excluding stations 5 and 6 (No data for 1999 and 2000), the data shows 4 of 20 sampling stations (1N/S-4N/S) indicate sediment toxicity and amphipod survival below the BPTCP reference tolerance limit (Battelle Memorial Institute, 2002).
<i>Spatial Representation:</i>	Data were collected concurrently with benthic and chemical measurements.
<i>Temporal Representation:</i>	Data was collected from 5/95-4/97.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan. SWRCB received "Sediment Investigations at Islais Creek and Mission Creek-1998-1999-2000" provided by SFPUC. Appropriate QA procedures were followed.

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community (BPTCP, 1998).
<i>Evaluation Guideline:</i>	BPTCP reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity was observed in 4 of 21 samples. Observed toxicity was recorded in the year 2000 only (Battelle Memorial Institute,

2002).

Spatial Representation: Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.

Temporal Representation: Data were collected between 1998 and 2000.

Numeric Line of Evidence Population/Community Degradation

Beneficial Use: ES - Estuarine Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.

Evaluation Guideline: Evaluation of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community (BPTCP, 1998).

Data Used to Assess Water Quality: Relative benthic index = 0.00, 0.34, and 0.65 (3 benthic gradient samples) (Hunt et al, 1998b).

Spatial Representation: Data were collected concurrently with toxicity and chemical samples.

Temporal Representation: Data was collected, from 5/95-4/97.

Data Quality Assessment: BPTCP Quality Assurance Project Plan.

Line of Evidence Remedial Program in Place

Beneficial Use ES - Estuarine Habitat

Information Used to Assess Water Quality: The BPTCP Consolidated Toxic Hot Spots Cleanup Plan presents a variety of corrective actions that need to be completed in order for the cove to be remediated. Responsible parties have been identified.

Region 2

Water Segment:	Oakland Inner Harbor (Fruitvale Site, part of SF Bay, Central)
Pollutant:	Chlordane
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for delisting under sections 4.6 of the Listing Policy. Under section 4.6 a single line of evidence is necessary to assess listing status.</p> <p>Two lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, it cannot be determined if the site has significant sediment toxicity or whether the pollutant is likely to cause or contribute to any toxic effect.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.4. None of 2 samples exceeded the sediment guideline, 2 of 2 samples exhibit toxicity, but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.
Lines of Evidence:	

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.

<i>Evaluation Guideline:</i>	Reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity in 2 of 2 samples. No significant toxicity in two urchin toxicity tests (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data were synoptically collected with chemical measurements in sediments.
<i>Temporal Representation:</i>	Data collected between April 1995 and April 1997.
<i>Data Quality Assessment:</i>	Methods used were equivalent to those used in the BPTCP QAPP. All reported data met QA requirements.

<i>Numeric Line of Evidence</i>	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	An Effects Range Median guideline of 6 ng/g dw was used to evaluate Total Chlordane data. This guideline is higher than the guideline used in previous analyses.
<i>Data Used to Assess Water Quality:</i>	None of the 2 samples exceed the sediment quality guideline (Hunt et al., 1998b).
<i>Spatial Representation:</i>	One station. Data was synoptically collected with toxicity measurements.
<i>Temporal Representation:</i>	Data collected in April 1995 and April 1997.
<i>Data Quality Assessment:</i>	Methods used were equivalent to those used in the BPTCP QAPP. All reported data met QA requirements.

Region 2

Water Segment:	Oakland Inner Harbor (Fruitvale Site, part of SF Bay, Central)
Pollutant:	Polychlorinated biphenyls
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for delisting under sections 4.6 of the Listing Policy. Under section 4.6 a single line of evidence is necessary to assess listing status.</p> <p>Two lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, it cannot be determined if the site has significant sediment toxicity or whether the pollutant is likely to cause or contribute to any toxic effect.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.4. None of 2 samples exceeded the sediment guideline, 2 of 2 samples exhibit toxicity, but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.
Lines of Evidence:	

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.

<i>Evaluation Guideline:</i>	Reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity in 2 of 2 samples. No significant toxicity in two urchin toxicity tests (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data were synoptically collected with chemical measurements in sediments.
<i>Temporal Representation:</i>	Data collected between April 1995 and April 1997.
<i>Data Quality Assessment:</i>	Methods used were equivalent to those used in the BPTCP QAPP. All reported data met QA requirements.

<i>Numeric Line of Evidence</i>	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	A sediment quality guideline of 400 ng/g was used (McDonald et al., 2000). This guideline is higher than the guideline used in previous analyses (Hunt et al., 1998b).
<i>Data Used to Assess Water Quality:</i>	None of 2 samples exceeded the sediment quality guideline (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data was synoptically collected with toxicity measurements.
<i>Temporal Representation:</i>	Data collected April 1994 and April 1997.
<i>Data Quality Assessment:</i>	Methods used were equivalent to those used in the BPTCP QAPP. All reported data met QA requirements.

Region 2

Water Segment:	Oakland Inner Harbor (Pacific Dry-dock Yard 1 Site, part of SF Bay, Central)
Pollutant:	Chlordane
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.6 of the Listing Policy. Under section 4.6 two lines of evidence are necessary to assess listing status.</p> <p>Two lines of evidence are available in the administrative record to assess this pollutant. One sample exceeds the sediment guideline but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy. The sediments at this site are toxic.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.4. One sample exceeded the guideline. At least 28 samples are needed before a pollutant can be considered for removal from the list using the frequencies presented in Table 4.1 of the Listing Policy. The sediments are toxic in 2 of 4 tests.5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.
Lines of Evidence:	

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms (BPTCP, 1998).

There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.

<i>Evaluation Guideline:</i>	ERM of 6 ng/g used (Long and Morgan, 1990).
<i>Data Used to Assess Water Quality:</i>	One of 2 samples exceed the sediment quality guideline (Hunt et al, 1998b).
<i>Spatial Representation:</i>	Spatial distribution of samples is described in the report: Sediment quality and biological effects in San Francisco Bay (Bay Protection and Toxic Cleanup Program), dated August 1998.
<i>Temporal Representation:</i>	Data collected in 1995.
<i>Data Quality Assessment:</i>	Used BPTCP QA/QC.

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	BPTCP reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity in 2 of 4 tests. No significant urchin toxicity (4 tests) (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Spatial distribution of samples is described in the report
<i>Temporal Representation:</i>	Data collected during 4/95- 4/97.
<i>Data Quality Assessment:</i>	Used BPTCP QA/QC.

Region 2

Water Segment: Oakland Inner Harbor (Pacific Dry-dock Yard 1 Site, part of SF Bay, Central)

Pollutant: Copper

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under sections 4.6 of the Listing Policy. Under section 4.6 a single line of evidence is necessary to assess delisting status.

Two lines of evidence are available in the administrative record to assess this pollutant. The site has significant sediment toxicity and the pollutant concentration does not exceed the sediment guideline but there are only a few chemical measurements. The number of samples is insufficient to determine with the confidence and power required by the Listing Policy.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. None of 2 samples exceeded the sediment guideline, 2 of 4 samples exhibit toxicity. The number of samples is insufficient to determine if standards are attained.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Sediment

Beneficial Use: ES - Estuarine Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic

organisms.

There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.

Evaluation Guideline: ERM of 270 µg/g was used (Long et al., 1995).
Data Used to Assess Water Quality: Two samples, no samples exceeding (Hunt et al., 1998b).
Spatial Representation: Spatial distribution of samples is described in the report
Temporal Representation: Data collected during 4/95- 4/97.
Data Quality Assessment: Used BPTCP QA/QC.

Numeric Line of Evidence

Toxicity

Beneficial Use: ES - Estuarine Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.

Evaluation Guideline: BPTCP reference envelope approach used.
Data Used to Assess Water Quality: Significant amphipod toxicity in 2 of 4 tests. No significant urchin toxicity (4 tests) (Hunt et al., 1998b).
Spatial Representation: Spatial distribution of samples is described in the report
Temporal Representation: Data collected during 4/95- 4/97.
Data Quality Assessment: Used BPTCP QA/QC.

Region 2

Water Segment:	Oakland Inner Harbor (Pacific Dry-dock Yard 1 Site, part of SF Bay, Central)
Pollutant:	Dieldrin
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.6 of the Listing Policy. Under section 4.6 two lines of evidence are necessary to assess listing status.</p> <p>Two lines of evidence are available in the administrative record to assess this pollutant. One sample exceeds the sediment guideline but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy. The sediments at this site are toxic.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.4. One sample exceeded the guideline. At least 28 samples are needed before a pollutant can be considered for removal from the list using the frequencies presented in Table 4.1 of the Listing Policy. The sediments are toxic in 2 of 4 tests.5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.
Lines of Evidence:	

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

	There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	ERM of 8 ng/g used (Long et al., 1995).
<i>Data Used to Assess Water Quality:</i>	One of 2 samples exceed the sediment quality guideline (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Spatial distribution of samples is described in the report
<i>Temporal Representation:</i>	Data collected during 4/95- 4/97.
<i>Data Quality Assessment:</i>	Used BPTCP QA/QC.

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.
	There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	BPTCP reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity in 2 of 4 tests. No significant urchin toxicity (4 tests) (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Spatial distribution of samples is described in the report
<i>Temporal Representation:</i>	Data collected during 4/95- 4/97.
<i>Data Quality Assessment:</i>	Used BPTCP QA/QC.

Region 2

Water Segment:	Oakland Inner Harbor (Pacific Dry-dock Yard 1 Site, part of SF Bay, Central)
Pollutant:	Lead
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.6 of the Listing Policy. Under section 4.6 two lines of evidence are necessary to assess listing status.</p> <p>Two lines of evidence are available in the administrative record to assess this pollutant. One sample exceeds the sediment guideline but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy. The sediments at this site are toxic.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.4. One sample exceeded the guideline. At least 28 samples are needed before a pollutant can be considered for removal from the list using the frequencies presented in Table 4.1 of the Listing Policy.5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

	There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	Probable Effects Level of 112.18 µg/g was used (McDonald et al., 1996).
<i>Data Used to Assess Water Quality:</i>	One sample exceeds the sediment quality guideline (Hunt et al., 1998-b).
<i>Spatial Representation:</i>	Spatial distribution of samples is described in the report
<i>Temporal Representation:</i>	Data collected during 4/95- 4/97.
<i>Data Quality Assessment:</i>	Used BPTCP QA/QC.

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	BPTCP reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity in 2 of 4 tests. No significant urchin toxicity (4 tests) (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Spatial distribution of samples is described in the report
<i>Temporal Representation:</i>	Data collected during 4/95- 4/97.
<i>Data Quality Assessment:</i>	Used BPTCP QA/QC.

Region 2

Water Segment:	Oakland Inner Harbor (Pacific Dry-dock Yard 1 Site, part of SF Bay, Central)
Pollutant:	Mercury
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.6 of the Listing Policy. Under section 4.6 two lines of evidence are necessary to assess listing status.</p> <p>Two lines of evidence are available in the administrative record to assess this pollutant. One sample exceeds the sediment guideline but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy. The sediments at this site are toxic.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.4. One of two samples exceeded the guideline. At least 28 samples are needed before a pollutant can be considered for removal from the list using the frequencies presented in Table 4.1 of the Listing Policy. The sediments are toxic in 2 of 4 tests.5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.
Lines of Evidence:	

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.

<i>Evaluation Guideline:</i>	Sediment guideline of 2.1 µg/g was used (PTI Environmental Services, 1991).
<i>Data Used to Assess Water Quality:</i>	One of 2 samples exceed the sediment quality guideline (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Spatial distribution of samples is described in the report
<i>Temporal Representation:</i>	Data collected during 4/95- 4/97.
<i>Data Quality Assessment:</i>	Used BPTCP QA/QC.

Numeric Line of Evidence

Toxicity

Beneficial Use: ES - Estuarine Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.

<i>Evaluation Guideline:</i>	BPTCP reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity in 2 of 4 tests. No significant urchin toxicity (4 tests) (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Spatial distribution of samples is described in the report
<i>Temporal Representation:</i>	Data collected during 4/95- 4/97.
<i>Data Quality Assessment:</i>	Used BPTCP QA/QC.

Region 2

Water Segment:	Oakland Inner Harbor (Pacific Dry-dock Yard 1 Site, part of SF Bay, Central)
Pollutant:	Polychlorinated biphenyls
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.6 of the Listing Policy. Under section 4.6 two lines of evidence are necessary to assess listing status.</p> <p>Two lines of evidence are available in the administrative record to assess this pollutant. One sample exceeds the sediment guideline but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy. The sediments at this site are toxic.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.4. One sample exceeded the guideline. At least 28 samples are needed before a pollutant can be considered for removal from the list using the frequencies presented in Table 4.1 of the Listing Policy. The sediments are toxic in 2 of 4 tests.5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.
Lines of Evidence:	

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

	There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	Sediment guideline of 400 ng/g used (McDonald et al., 2000).
<i>Data Used to Assess Water Quality:</i>	One sample exceeds the sediment guideline (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Spatial distribution of samples is described in the report
<i>Temporal Representation:</i>	Data collected in 1997.
<i>Data Quality Assessment:</i>	Used BPTCP QA/QC.

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.
	There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	BPTCP reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity in 2 of 4 tests. No significant urchin toxicity (4 tests) (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Spatial distribution of samples is described in the report
<i>Temporal Representation:</i>	Data collected during 4/95- 4/97.
<i>Data Quality Assessment:</i>	Used BPTCP QA/QC.

Region 2

Water Segment:	Oakland Inner Harbor (Pacific Dry-dock Yard 1 Site, part of SF Bay, Central)
Pollutant:	Polycyclic Aromatic Hydrocarbons (PAHs)
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.6 of the Listing Policy. Under section 4.6 two lines of evidence are necessary to assess listing status.</p> <p>Two lines of evidence are available in the administrative record to assess this pollutant. One sample exceeds the sediment guideline but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy. The sediments at this site are toxic.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.4. One sample exceeded the guideline. At least 28 samples are needed before a pollutant can be considered for removal from the list using the frequencies presented in Table 4.1 of the Listing Policy. The sediments are toxic in 2 of 4 tests.5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.
Lines of Evidence:	

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

	There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	ERM of 9,600 ng/g used (Long et al., 1995).
<i>Data Used to Assess Water Quality:</i>	One sample exceeded the sediment quality guideline (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Spatial distribution of samples is described in the report
<i>Temporal Representation:</i>	Data collected in 1997.
<i>Data Quality Assessment:</i>	Used BPTCP QA/QC.

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	BPTCP reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity in 2 of 4 tests. No significant urchin toxicity (4 tests) (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Spatial distribution of samples is described in the report
<i>Temporal Representation:</i>	Data collected during 4/95- 4/97.
<i>Data Quality Assessment:</i>	Used BPTCP QA/QC.

Region 2

Water Segment:	Oakland Inner Harbor (Pacific Dry-dock Yard 1 Site, part of SF Bay, Central)
Pollutant:	Zinc
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.6 of the Listing Policy. Under section 4.6 two lines of evidence are necessary to assess listing status.</p> <p>Two lines of evidence are available in the administrative record to assess this pollutant. One sample exceeds the sediment guideline but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy. The sediments at this site are toxic.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.4. One sample exceeded the guideline. At least 28 samples are needed before a pollutant can be considered for removal from the list using the frequencies presented in Table 4.1 of the Listing Policy. The sediments are toxic in 2 of 4 tests.5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.
Lines of Evidence:	

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

	There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	ERM of 410 µg/g used (Long et al., 1995).
<i>Data Used to Assess Water Quality:</i>	One of 2 samples exceed the sediment guideline (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Spatial distribution of samples is described in the report
<i>Temporal Representation:</i>	Data collected during 4/95- 4/97.
<i>Data Quality Assessment:</i>	Used BPTCP QA/QC.

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	BPTCP reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity in 2 of 4 tests. No significant urchin toxicity (4 tests) (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Spatial distribution of samples is described in the report
<i>Temporal Representation:</i>	Data collected during 4/95- 4/97.
<i>Data Quality Assessment:</i>	Used BPTCP QA/QC.

Region 2

Water Segment: Pacific Ocean at Rockaway Beach

Pollutant: Coliform Bacteria

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.3 of the Listing Policy. Under section 4.3 a single line of evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. Three of the samples exceed the water quality objective but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of 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. Three of 23 samples exceeded the coliform water quality objective. At least 26 samples are needed before a pollutant can be considered for removal from the list using the frequencies presented in Table 4.2 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: R1 - Water Contact Recreation

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Ocean Plan: Samples of water from each sampling station shall have a density of total coliform organisms less than 1,000 per 100 ml (10 per ml); provided that not more than 20 percent of the samples at any sampling station, in any 30-day period, may exceed 1,000 per 100 ml (10 per ml), and provided further that no single sample when verified by a repeat sample taken within 48 hours shall exceed 10,000 per 100 ml

(100 per ml) (SWRCB, 2001).

Data Used to Assess Water Quality:

Three of 23 sample exceeded the objective. Samples exceeding were collected during dry-weather season (SWRCB, 2003).

Spatial Representation:

Data was spatially collected.

Temporal Representation:

Data was collected from 5/2000-10/2000.

Data Quality Assessment:

San Mateo County Environmental Health Dept. Beach Monitoring, Surfrider data/Lab QA/QC used. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.

Region 2

Water Segment: Pescadero Creek

Pollutant: Sedimentation/Siltation

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for delisting under sections 4.9 and 4.11 of the Listing Policy.

Six lines of evidence are available in the administrative record to assess this pollutant. The original listing was based on a recommendation to list by the Department of Fish and Game. The available data, the water body has optimal or suboptimal habitat to support salmonids and generally good insect community even though sedimentation from past practices will continue for some time. Summer measurements of turbidity measurements did not exceed evaluation guidelines for the protection of salmonids. There is limited habitat for Coho because of the lack of deep pools, spawning gravels, and large woody debris.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

This conclusion is based on the staff findings that:

1. The biological assessments used comply with the requirements of the Listing Policy section 6.1.5.8.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Even though most of the samples indicate optimal or suboptimal fish habitat and the benthic bioassessments indicate most of the samples have good or excellent ratings, there are still potential impacts on Coho related to lack of suitable spawning habitat.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

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

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	CO - Cold Freshwater Habitat, MU - Municipal & Domestic, WA - Warm Freshwater Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases from normal background light penetration or turbidity relatable to waste discharge shall not be greater than 10 percent in areas where natural turbidity is greater than 50 NTU (SFBRWQCB, 1995).
<i>Evaluation Guideline:</i>	The WQOs address conditions both in the water column (sediment and turbidity narratives). Published sedimentation thresholds can be used as appropriate interpretive evaluation guidelines. The evaluation guideline used to determine turbidity exceedance is from published-peer reviewed paper, "The Effects of Chronic Turbidity on Density and Growth of Steelheads and Coho Salmon", John W Sigler, et.al.1984. The guideline is as follows, "In our studies, as little as 25 NTUs (nephelometric turbidity units) of turbidity caused a reduction in fish growth." Sigler also discusses the result of turbidities in the 25-50 NTU range reduced growth and caused more newly emerged salmonids to emigrate from laboratory streams than did clear water (Sigler et al., 1984). Bisson and Bilby (1982) reported that juvenile coho salmon avoided water with turbidities that exceeded 70 NTU. Berg and Northcote (1985, as cited in Meehan 1991) reported that feeding and territorial behavior of juvenile coho salmon were disrupted by short-term exposures (2.5-4.5 days) to turbid water with up to 60 NTU.
<i>Data Used to Assess Water Quality:</i>	One of 8 data values exceed the secondary MCL for turbidity. Smallest = 1.24, largest = 5.28 (NTU). Average = 2.74 (NTU). Comparison to the "changes in turbidity" objective cannot be made because background information is not available. None of the measurements exceed the 25 NTU evaluation guideline (Environmental Science Associates, 2004).
<i>Spatial Representation:</i>	Eight sample sites along the Creek and its immediate tributaries (14 total Pescadero and Butano SWAMP program sites were used).
<i>Temporal Representation:</i>	ESA (Environmental Science Associates) survey made in summer, August 21 to September 24, 2003.
<i>Data Quality Assessment:</i>	Methodology discussed in ESA 2004 report.

Numeric Line of Evidence	Population/Community Degradation
<i>Beneficial Use:</i>	CO - Cold Freshwater Habitat, WI - Wildlife Habitat
<i>Matrix:</i>	-N/A
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce significant alterations in population or community ecology or receiving water biota (SFBRWQCB,

	1995).
<i>Evaluation Guideline:</i>	Bioassessment guidelines from the following publication were used: California Department of Fish and Game (CDFG), 1999
<i>Data Used to Assess Water Quality:</i>	Metric values from 18 sample sites for taxonomic richness, dominant taxon, members of three major benthic invertebrate families, a sensitive taxa index, the Shannon Diversity index, and tolerance value were scored and the 132 scores (6 scores for each sample site) summed to derive total scores for each site. Total scores were then used to assign "poor", "fair", "good", or "excellent" condition grades to each site along the Creek (SWAMP, 2004). Total sample site scores ranged from 10 to 28. The average score was 20.4, which is equivalent to a "good" rating. One site was rated "poor". Two sites were rated "fair". Eight sites were "good" and seven sites were "excellent".
<i>Spatial Representation:</i>	Eighteen sample sites along the Creek and its immediate tributaries. Fourteen total Pescadero and Butano SWAMP program sites were used (ESA, 2004).
<i>Temporal Representation:</i>	SWAMP assessment made in April 2002. DFG assessments made in 1995. ESA (Environmental Science Associates) survey made in summer (August 21 to September 24) 2003.
<i>Environmental Conditions:</i>	April 2002 SWAMP data is not directly comparable to summer 2003 data. Habitat conditions in summer 2003 were evaluated at each site.
<i>Data Quality Assessment:</i>	California Stream Bioassessment Protocols (CDFG 1999) used (in 2002 and 2003 surveys). SWAMP QAPP was used.

Numeric Line of Evidence	Population/Community Degradation
<i>Beneficial Use:</i>	CO - Cold Freshwater Habitat
<i>Matrix:</i>	-N/A
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall remain free of toxic substances in concentrations that are lethal to or that produce significant alterations in population or community ecology or receiving water biota (SFBRWQCB, 1995).
<i>Data Used to Assess Water Quality:</i>	Assessments of physical habitat quality, biotic conditions, pool habitat quality, and water quality in the Pescadero-Butano watershed revealed the following overall fisheries habitat conditions currently present in the watershed: (1) Accessible salmonid habitat is fairly abundant throughout the watershed, (2) salmonid habitat quality is higher in the mid and upper Pescadero Creek watershed and lower in the Butano Creek watershed as well as the low gradient reaches of Pescadero Creek, (3) pool habitat is fairly abundant but of limited depth and suboptimal cover, (4) water quality throughout both watersheds is generally adequate for salmonids and other aquatic organisms. The primary limiting factors with regards to salmonid habitat, based on the sampled reaches, are generally shallow pool depths, limited amounts and frequency of large woody debris, and relatively high levels of fine sediments. These limiting factors are likely to be of greater significance to coho salmon than steelhead. Coho in particular require deep pools with low water velocities and adequate cover for survival and growth while

steelhead are more adapted to occupying and foraging in the faster and shallower areas of stream channels. Thus, current habitat conditions in the watershed favor steelhead over coho salmon.

Spatial Representation: Eighteen sites along the creek and in small tributaries.

Temporal Representation: Data and information collected in 2002 and 2003.

Data Quality Assessment: SWAMP quality assurance and comparable ESA methods.

Line of Evidence

Narrative Description Data

Beneficial Use

CO - Cold Freshwater Habitat, MU - Municipal & Domestic, WA - Warm Freshwater Habitat

Information Used to Assess Water Quality:

1. Analysis of the flood record on Pescadero Creek (1951 through 2001).
2. Analysis of changes in streambed elevation at the gauging station (1951 through 2001).

Non-Numeric Objective:

Basin Plan: The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses (SFBRWQCB, 1995).

Turbidity Objective: "Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases from normal background light penetration or turbidity relatable to waste discharge shall not be greater than 10 percent in areas where natural turbidity is greater than 50 NTU."

Data Used to Assess Water Quality:

Graphs of "Maximum Annual Flood Peaks Greater than Bankfull as a Ratio to the Mean Annual Flood" and "Maximum Annual Flood Peaks Greater than Bankfull as a Ratio to the Mean Annual Flood" appear to show that flooding continues to be periodic and occasional (e.g., Pages 4-5, 4-6).

Sediment Source Investigation (e.g., Analysis of aerial photos).

"Erosional features associated with land management account for by far the greatest sediment delivery volumes from the watershed." (Page 6-48).

"The sandstone and mixed lithology HGUs that underlie much of the forested area of the watershed may continue to produce relatively large quantities of sediment for some time." (Page 6-49).

"While erosion and sediment delivery resulting from past management will likely continue for some time, there should be an overall decrease in sediment delivery to stream channels as land use practices continue to improve and as degraded lands recover both naturally and through proactive treatments." (Pages 6-49, 6-50).

Spatial Representation:

Single USGS gauging station, "Pescadero Creek," located at a bridge on Pescadero Road, 3.0 miles east of the town of Pescadero and 5.3 miles upstream of the mouth of Pescadero Creek.

Temporal Representation:

Series of annual maximum instantaneous flood peaks (annual flood

series) for the 1952 through the 2001 water years.

Line of Evidence	Testimonial Evidence
<i>Beneficial Use</i>	CO - Cold Freshwater Habitat, WA - Warm Freshwater Habitat
<i>Information Used to Assess Water Quality:</i>	<p>In 1998 a letter was sent to RWQCB staff from the California Department of Fish and Game requesting that several waters be added to the section 303(d) list because of the threats to Coho salmon and steelhead. The letter states:</p> <p>"...The Federal listing of both Coho salmon and steelhead as threatened species confirms the grave condition of these economically and intrinsically valuable fish populations. ...If these species are to survive, we must act now to improve aquatic habitat where it is most critical, namely in major rivers tributary to the Bay and ocean."</p> <p>The letter goes on to identify siltation as a problem in Pescadero and Butano Creeks. No data are provided or analyzed to support the conclusion that siltation is a water quality problem.</p>
<i>Non-Numeric Objective:</i>	Basin Plan: The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses (SFBRWQCB, 1995).

Line of Evidence	Pollutant-Sediment
<i>Beneficial Use</i>	CO - Cold Freshwater Habitat, WA - Warm Freshwater Habitat
<i>Information Used to Assess Water Quality:</i>	<p>From the RWQCB: More than 80 percent of the estimated total sediment delivery to the channel network during the past two decades is associated with human land use activities. Much of this sediment is controllable (gullies associated with historical hillside agriculture, active and abandoned rural earth-surfaced roads, etc.).</p>
<i>Non-Numeric Objective:</i>	<p>Basin Plan: The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.</p> <p>Waters shall not contain substances in concentrations that result in the deposition of material that cause nuisance or adversely affect beneficial uses.</p>

Line of Evidence	Testimonial Evidence
<i>Beneficial Use</i>	CO - Cold Freshwater Habitat
<i>Information Used to Assess Water Quality:</i>	<p>From the RWQCB: (1) There is little suitable habitat at present within the creek for coho salmon, and primary hypothesized limiting factors (for coho) are lack of good cover and deep pools, the second factor of which is in part related to an abundant total and fine sediment supply; (2) Coho salmon are state listed as endangered south of the Golden Gate, and federally listed as threatened. Two-of-three brood years are</p>

believed to be extinct within Pescadero and Butano Creeks, and the third brood year appears to have a tenuous presence.

(3) Although the steelhead trout run in both creeks does not appear to be immediately threatened by local extinction, run-size is substantially reduced from historical values by a variety of limiting factors including a lack of large woody debris and substantial increase in total and fine sediment supply.

Region 2

Water Segment: San Gregorio Creek

Pollutant: Coliform Bacteria

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.3 of the Listing Policy. Under section 4.3 a single line of evidence is necessary to assess delisting status.

One line of evidence is available in the administrative record to assess this pollutant. A large number of samples exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. High percentages of samples exceeded the total and fecal coliform water quality objectives and this exceeds the allowable frequency listed in Table 4.2 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 met.

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: R1 - Water Contact Recreation

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan objectives (SFBRWQCB, 1995)
Fecal coliform
Log mean <200 MPN/100ml
90th percentile <400 MPN/100ml
Total coliform
Log mean <240 MPN/100ml
90th percentile >10,000 MPN/100ml

Data Used to Assess Water Quality:

Fifty-six samples for total coliform, 23 samples for fecal coliform, 22 samples for E. coli. Basin Plan objectives violated in 2% samples for total coliform maximum. Objectives violated in 73% samples for total coliform median. Basin Plan objectives violated in 26% samples for fecal coliform geomean. Objectives violated in 43% samples for fecal coliform in dry-weather months. E. coli data show 45% samples for total coliform maximum designated beach violated the Basin Plan Objectives. Basin Plan objectives violated in 45% samples for E. coli maximum moderately-used beach, violated in 18% samples for maximum lightly-used beach and violated in 45% samples for maximum infrequently-used beach, in dry weather months (SWRCB, 2003).

Spatial Representation:

Data was spatially collected.

Temporal Representation:

Data was collected from 9/28/98-10/31/00.

Data Quality Assessment:

San Mateo County Environmental Health Dept. Beach Monitoring, Surfrider data/Lab QA/QC used. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.

Region 2

Water Segment: San Leandro Bay (part of SF Bay, Central)

Pollutant: Lead

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under sections 4.6 and 4.9 of the Listing Policy. Under section 4.6 a single line of evidence is necessary to assess delisting status while under section 4.9, a minimum of two lines of evidence are needed to assess listing status.

Three lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, the site has significant sediment toxicity and the pollutant concentration exceeds the sediment guideline. The benthic community is not impacted.

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

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Four of 7 samples exceeded the sediment guideline, 3 of 7 samples exhibit toxicity, but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Toxicity

Beneficial Use: ES - Estuarine Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic

organisms.

There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.

<i>Evaluation Guideline:</i>	BPTCP Reference envelope approach.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity in 4 of 7 tests. Significant sea urchin toxicity in 3 of 7 tests (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data was synoptically collected with chemical and toxicity measurements at 7 sampling sites.
<i>Temporal Representation:</i>	Samples were collected during April 1995 and April 1997.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

Numeric Line of Evidence

Population/Community Degradation

Beneficial Use:

ES - Estuarine Habitat

Matrix:

Sediment

*Water Quality Objective/
Water Quality Criterion:*

All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.

Evaluation Guideline:

Evaluations of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community.

Data Used to Assess Water Quality:

BPTCP benthic index values were 0.60, 0.60, 0.67, 1.0, and 0.66 (Hunt et al, 1998b).

Spatial Representation:

Five stations. Data was synoptically collected with chemical and toxicity measurements.

Temporal Representation:

Samples were collected in April 1995 and April 1997.

Data Quality Assessment:

BPTCP Quality Assurance Project Plan.

Numeric Line of Evidence

Pollutant-Sediment

Beneficial Use:

ES - Estuarine Habitat

<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	Probable Effects Level of 112.18 µg/g was used (MacDonald et al., 1996).
<i>Data Used to Assess Water Quality:</i>	Four of 7 measurements exceeded the sediment quality guideline (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data was synoptically collected with benthic community and toxicity measurements.
<i>Temporal Representation:</i>	Samples were collected in April 1995 and April 1997.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

Region 2

Water Segment: San Leandro Bay (part of SF Bay, Central)

Pollutant: Mercury

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for delisting under sections 4.6 and 4.9 of the Listing Policy. Under section 4.6 a single line of evidence is necessary to assess listing status while under section 4.9, a minimum of two lines of evidence are needed to assess listing status.

Three lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, the water body has significant sediment toxicity and it cannot be determined if the pollutant causes or contributes to any toxic effect.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. None of 7 samples exceeded the sediment guideline, 3 of 7 samples exhibit toxicity, and these do not meet the minimum data required for delisting as presented in Table 4.1 of the Listing Policy.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Toxicity

Beneficial Use: ES - Estuarine Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic

organisms.

There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.

<i>Evaluation Guideline:</i>	BPTCP Reference envelope approach.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity in 4 of 7 tests. Significant sea urchin toxicity in 3 of 7 tests (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data was synoptically collected with chemical and toxicity measurements at 7 sampling sites.
<i>Temporal Representation:</i>	Samples were collected during April 1995 and April 1997.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

<i>Numeric Line of Evidence</i>	Population/Community Degradation
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	Evaluations of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community.
<i>Data Used to Assess Water Quality:</i>	BPTCP benthic index values were 0.60, 0.60, 0.67, 1.0, and 0.66 (Hunt et al, 1998b).
<i>Spatial Representation:</i>	Five stations. Data was synoptically collected with chemical and toxicity measurements.
<i>Temporal Representation:</i>	Samples were collected in April 1995 and April 1997.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

<i>Numeric Line of Evidence</i>	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat

<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	Sediment quality guideline of 2.1 µg/g was used (PTI Environmental Services, 1991).
<i>Data Used to Assess Water Quality:</i>	None of 7 measurements exceeded the sediment quality guideline. In previous BPTCP analyses the guideline used was much lower than the guideline used in the current analysis (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data was synoptically collected with benthic community and toxicity measurements.
<i>Temporal Representation:</i>	Samples were collected in April 1995 and April 1997.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

Region 2

Water Segment: San Leandro Bay (part of SF Bay, Central)

Pollutant: Polycyclic Aromatic Hydrocarbons (PAHs)

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under sections 4.6 and 4.9 of the Listing Policy. Under section 4.6 a single line of evidence is necessary to assess delisting status while under section 4.9, a minimum of two lines of evidence are needed to assess listing status.

Three lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, the site has significant sediment toxicity and the pollutant concentration may not exceed the sediment guideline. Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification against removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Two of 7 samples exceeded the sediment guideline and this does not meet the minimum data required for delisting as presented in Table 4.1 of the Listing Policy.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Toxicity

Beneficial Use: ES - Estuarine Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.

<i>Evaluation Guideline:</i>	BPTCP Reference envelope approach.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity in 4 of 7 tests. Significant sea urchin toxicity in 3 of 7 tests (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data was synoptically collected with chemical and toxicity measurements at 7 sampling sites.
<i>Temporal Representation:</i>	Samples were collected during April 1995 and April 1997.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

Numeric Line of Evidence

Population/Community Degradation

Beneficial Use: ES - Estuarine Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.

Evaluation Guideline: Evaluations of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community.

Data Used to Assess Water Quality: BPTCP benthic index values were 0.60, 0.60, 0.67, 1.0, and 0.66 (Hunt et al, 1998b).

Spatial Representation: Five stations. Data was synoptically collected with chemical and toxicity measurements.

Temporal Representation: Samples were collected in April 1995 and April 1997.

Data Quality Assessment: BPTCP Quality Assurance Project Plan.

Numeric Line of Evidence

Pollutant-Sediment

Beneficial Use: ES - Estuarine Habitat

Matrix: Sediment

Water Quality Objective/ All waters shall be maintained free of toxic substances in concentrations

<i>Water Quality Criterion:</i>	that are lethal to or that produce other detrimental responses in aquatic organisms.
	There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	Effects Range-Median for high molecular weight PAHs of 9,600 ng/g was used (Long et al., 1995). Probable Effects Level for low molecular weight PAHs of 1,442 ng/g was used (MacDonald et al., 1996).
<i>Data Used to Assess Water Quality:</i>	Two of 7 samples exceed the guideline for high molecular weight PAHs (Hunt et al., 1998).
<i>Spatial Representation:</i>	Data was synoptically collected with benthic community and toxicity measurements.
<i>Temporal Representation:</i>	Samples were collected in April 1995 and April 1997.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

Region 2

Water Segment: San Leandro Bay (part of SF Bay, Central)

Pollutant: Zinc

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under sections 4.6 and 4.9 of the Listing Policy. Under section 4.6 a single line of evidence is necessary to assess delisting status while under section 4.9, a minimum of two lines of evidence are needed to assess listing status.

Three lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, the site has significant sediment toxicity and the pollutant concentration exceeds the sediment guideline. The benthic community is not impacted.

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

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Four of 7 samples exceeded the sediment quality guideline of 410 µg/g, 3 of 7 samples exhibit toxicity, and these exceed the allowable frequency listed in Table 4.1. In addition, at least 28 total samples are required before a pollutant can be considered for removal from the 303(d) list using the frequencies presented in table 4.1 of the Listing Policy. The benthic community in this water body is not impacted.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	BPTCP Reference envelope approach.
<i>Data Used to Assess Water Quality:</i>	Significant amphipod toxicity in 4 of 7 tests. Significant sea urchin toxicity in 3 of 7 tests (Hunt et al., 1998b).
<i>Spatial Representation:</i>	Data was synoptically collected with chemical and toxicity measurements at 7 sampling sites.
<i>Temporal Representation:</i>	Samples were collected during April 1995 and April 1997.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

Numeric Line of Evidence	Population/Community Degradation
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.
<i>Evaluation Guideline:</i>	Evaluations of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community.
<i>Data Used to Assess Water Quality:</i>	BPTCP benthic index values were 0.60, 0.60, 0.67, 1.0, and 0.66 (Hunt et al, 1998b).

Spatial Representation: Five stations. Data was synoptically collected with chemical and toxicity measurements.

Temporal Representation: Samples were collected in April 1995 and April 1997.

Data Quality Assessment: BPTCP Quality Assurance Project Plan.

Numeric Line of Evidence Pollutant-Sediment

Beneficial Use: ES - Estuarine Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.

There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.

Evaluation Guideline: Effects Range-Median of 410 µg/g was used (Long et al., 1995).

Data Used to Assess Water Quality: Four of 7 measurements exceed the ERM (Hunt et al., 1998b).

Spatial Representation: Data was synoptically collected with benthic community and toxicity measurements.

Temporal Representation: Samples were collected in April 1995 and April 1997.

Data Quality Assessment: BPTCP Quality Assurance Project Plan.

Region 2

Water Segment: San Pablo Reservoir

Pollutant: Mercury

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.5 of the Listing Policy. Under section 4.5 a single line of evidence is necessary to assess delisting status.

One line of evidence is available in the administrative record to assess this pollutant. A large number of samples exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. Five of 12 samples exceeded the water quality objective and this exceeds the allowable frequency listed in Table 4.1 of the Listing Policy. Too few samples are available to consider delisting.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

Beneficial Use: CM - Commercial and Sport Fishing (CA)

Matrix: Tissue

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: Controllable water quality factors shall not cause a detrimental increase in concentrations of toxic substances found in aquatic life (SFBRWQCB, 1995).

Evaluation Guideline: Interim fish advisory issued Feb. 2000, USEPA screening criterion (0.3 ppm) (USEPA, 2000).

Data Used to Assess Water Quality: Five of 12 composite fish-tissue samples exceed the USEPA criteria. All of the fish were trophic Level 4 samples (large mouth bass). There was

also a fish advisory issued in February 2000 (TSMP, 2002).

Temporal Representation:

Data was collected during 11/97.

Data Quality Assessment:

Used California Office of Environmental Health Hazard Assessment and Contra Costa County Health Services data. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.

Region 2

Water Segment: San Pedro Creek

Pollutant: Coliform Bacteria

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.3 of the Listing Policy. Under section 4.3 a single line of evidence is necessary to assess delisting status.

One line of evidence is available in the administrative record to assess this pollutant. A large number of samples exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. Most of the samples exceeded the total and fecal water quality objectives and this exceeds the allowable frequency listed in Table 4.2 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: R1 - Water Contact Recreation

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan objectives (SFBRWQCB, 1995)
Fecal coliform
Log mean <200 MPN/100ml 90th percentile <400 MPN/100ml
Total coliform
Log mean <240 MPN/100ml
90th percentile >10,000 MPN/100ml

Ocean Plan Objectives (SWRCB, 2001)

Samples of water from each sampling station shall have a density of total coliform organisms less than 1,000 per 100 ml (10 per ml); provided that not more than 20 percent of the samples at any sampling station, in any 30-day period, may exceed 1,000 per 100 ml (10 per ml), and provided further that no single sample when verified by a repeat sample taken within 48 hours shall exceed 10,000 per 100 ml (100 per ml).

Data Used to Assess Water Quality:

Ninety-nine samples for total coliform, 6 samples for fecal coliform, for Basin Plan data set. 41 samples for total coliform, 23 samples for fecal coliform for Ocean Plan data set. Basin Plan objectives violated in 13% samples for total coliform, 98% samples for total coliform median, and 100% violated for samples of fecal coliform geomean and fecal coliform in dry weather months (SWRCB, 2003).

Ocean Plan objectives violated in 90% of the samples for total coliform, 96% of samples for fecal coliform geomean, and 100% fecal coliform in dry weather months. E. coli data show 67% samples for total coliform maximum designated beach violated the Basin Plan Objectives. Basin Plan objectives violated in 63% samples for E. coli maximum moderately-used beach, violated in 57% samples for maximum lightly-used beach and violated in 57% samples for maximum infrequently-used beach, in dry weather months.

Spatial Representation:

Data was collected at 15 sampling sites.

Temporal Representation:

Data was collected, from 5/26/98-8/14/00, and 4/24/00-11/13/00.

Data Quality Assessment:

San Mateo County Environmental Health Dept. Beach Monitoring/Surfrider data/Lab QA/QC used. USEPA Region IX Laboratory data used. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.

Region 2

Water Segment: San Vicente Creek

Pollutant: Coliform Bacteria

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.3 of the Listing Policy. Under section 4.3 a single line of evidence is necessary to assess delisting status.

One line of evidence is available in the administrative record to assess this pollutant. A large number of samples exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. All samples exceeded the fecal and total coliform water quality objectives and this exceeds the allowable frequency listed in Table 4.2 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: R1 - Water Contact Recreation

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan objectives (SFBRWQCB, 1995)
Fecal coliform
Log mean <200 MPN/100ml
90th percentile <400 MPN/100ml
Total coliform
Log mean <240 MPN/100ml
90th percentile >10,000 MPN/100ml

Data Used to Assess Water Quality:

Thirty-eight samples for total coliform, 22 samples for fecal coliform, and 6 samples for E. coli. E. coli data show 100% violations of the Basin Plan Objectives for total coliform maximum at all beaches in dry-weather months. Basin Plan violated in 3% of samples for total coliform maximum, 100% samples violated for total coliform median, 100% samples violated for fecal coliform geomean and 100% samples violated for fecal coliform (REC-1). Basin Plan objectives violated in 32% of samples for fecal coliform mean, and 23% violated samples for fecal coliform (REC-2) in dry-weather months (SWRCB, 2003).

Spatial Representation:

Data was spatially collected.

Temporal Representation:

Data was collected from 10/6/98-9/26/00.

Data Quality Assessment:

San Mateo County Environmental Health Department. Beach Monitoring, Surfrider data/Lab QA/QC used. Data evaluation was based on USEPA guidelines for 305(b) reports, that uses a hierarchy of water quality data levels. Only data of higher overall level of information (Levels 3 and 4) were used to list a water body.

Region 2

Water Segment: Tomales Bay

Pollutant: Mercury

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 3.5 of the Listing Policy. One line of evidence is available in the administrative record to assess this pollutant.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Twenty-seven out of 55 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 4.1 of the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

Beneficial Use: CM - Commercial and Sport Fishing (CA)

Matrix: Tissue

*Water Quality Objective/
Water Quality Criterion:* San Francisco Bay RWQCB Basin Plan: Many pollutants can accumulate on particles, in sediment, or bioaccumulate in fish and other aquatic organisms. Controllable water quality factors shall not cause a detrimental increase in concentrations of toxic substances found in bottom sediments or aquatic life. Effects on aquatic organisms, wildlife, and human health will be considered.

Evaluation Guideline: OEHHA Screening Value of 0.3 µg/g for mercury.

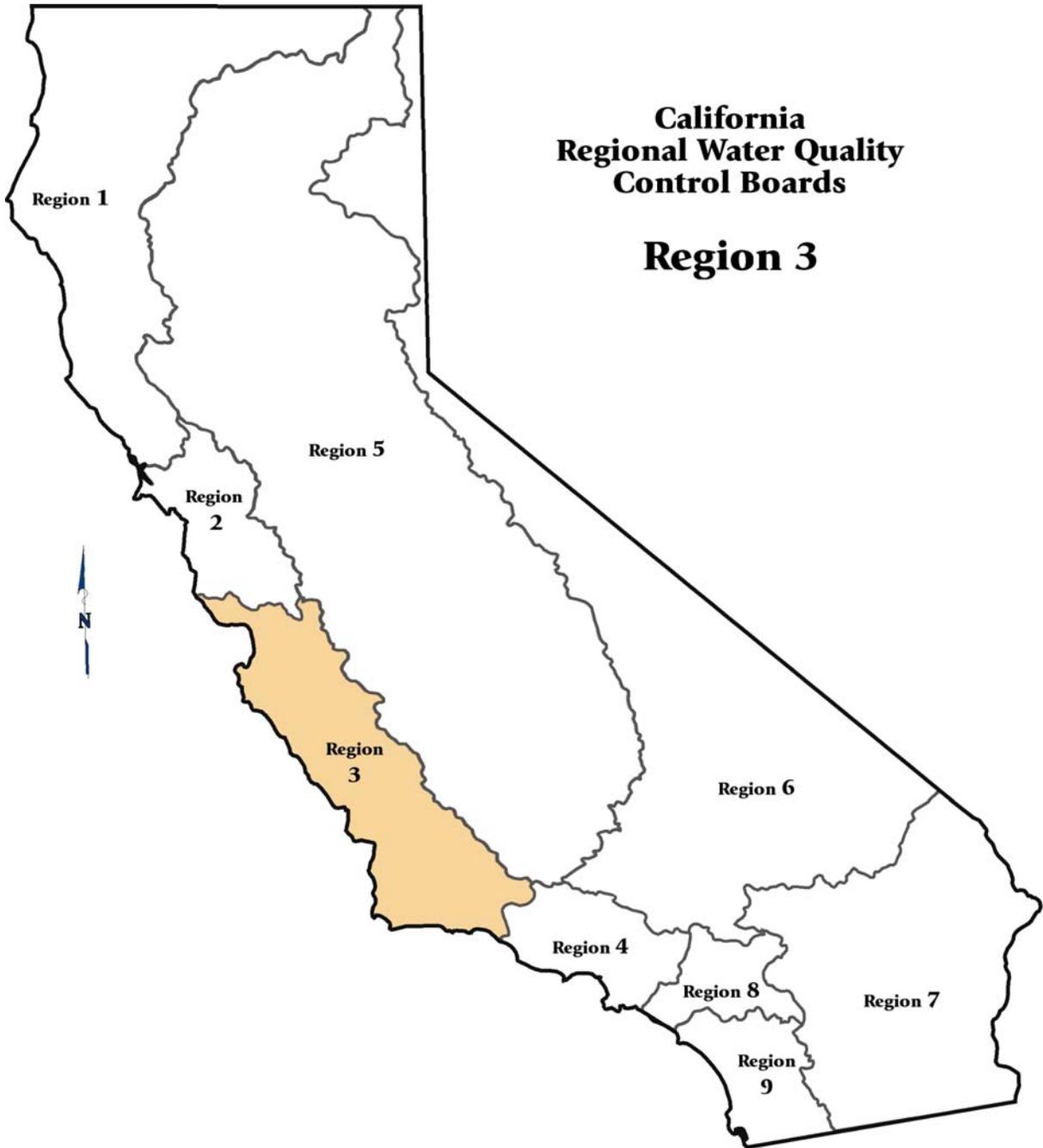
Data Used to Assess Water Quality: Twenty-seven out of 55 samples exceeded (Health Advisory for Hg in fish and shellfish). Filet composite and individual samples were collected from the following species: bat ray, brown smooth hound shark, California halibut, cockle, jack smelt, leopard shark, Pacific angle shark, red rock crab, redbtail surfperch, and shiner surfperch. Species exceeding guideline were bat ray, brown smooth hound shark, cockle, leopard shark, and Pacific angle shark (TSMP, 2002).

Spatial Representation: Seven stations were sampled: Outer Bay, Mid Bay, Blake's Landing, Hamlet, McDonald, Millerton Park, and S. Millerton Ramp.

Temporal Representation: Samples were collected in 1998-99.

Data Quality Assessment: Data and Quality Assurance/Quality Control Report For Trace Metals - Coastal Fish Contaminant Project Year 1, 1998-1999. Department of Fish and Game.

Fact Sheets Supporting
“Do Not Delist” Recommendations



September 2006

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New or Revised Fact Sheets

New or Revised Fact Sheets

Region 3

Water Segment: San Antonio Creek (San Antonio Watershed, Rancho del las Flores Bridge at Hwy 135 to downstream at Railroad Bridge)

Pollutant: Boron

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under section 4.1 of the Listing Policy. Under section 4.1 a single line of evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. A large number of the measurements exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of not removing this water segment-pollutant combination on the section 303(d) list in the Water Quality Limited Segments category.

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. Thirty-one of 45 samples exceeded the water quality objective and this exceeds 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.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	AG - Agricultural Supply
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Waters shall not contain concentrations of chemical constituents in amounts which adversely affect the agricultural beneficial use. In addition, waters used for irrigation and livestock watering shall not exceed concentrations for those chemicals listed in Table 3-4 (Region 3 Basin Plan, Section II.A.2 Objectives for all inland surface waters, enclosed bay, and estuaries, page III-5). In Table 3-4 of the Basin Plan (page III-9), the maximum concentration for boron for irrigation supply is 0.75 mg/L.
<i>Data Used to Assess Water Quality:</i>	Thirty-one out of 45 samples exceeded the water quality objective for agricultural water use/ irrigation supply for boron (SWAMP, 2004; CCAMP, 2004).
<i>Spatial Representation:</i>	Samples were collected from four sites. Exceedances were detected in samples collected from three of the four sites (313SAB, 313SAC, 313SAI).
<i>Temporal Representation:</i>	Samples were collected from January 2001 through July 2002.
<i>Environmental Conditions:</i>	The water body is located in the San Antonio hydrologic unit, San Antonio hydrologic subarea. Monitoring sites are located at San Antonio Creek at Rancho de las Flores Bridge and Highway 135 (313SAB), San Antonio Creek at Railroad Bridge, upstream of lagoon (313SAC), San Antonio Creek at San Antonio Road East (313SAE), and San Antonio Creek at San Antonio Road West (313SAI).
<i>Data Quality Assessment:</i>	CCAMP, SWAMP QAPP.

Region 3

Water Segment: San Benito River

Pollutant: Fecal Coliform

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.3 of the Listing Policy. Under section 4.3 a single line of evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. The sample size was insufficient to determine whether water quality standards were being met or exceeded in the water body.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of not removing this water segment-pollutant combination on the section 303(d) list in the Water Quality Limited Segments category.

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. Five of 12 samples exceeded the Basin Plan water quality objective, however there is not enough data to determine if standards are being met or exceeded in the water body with the confidence and power 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.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined whether applicable water quality standards are being met or exceeded.

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	R1 - Water Contact Recreation
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Fecal coliform concentration, based on minimum of not less than five samples or any 30-day period, shall not exceed a log mean of 200/100 ml, nor shall more than ten percent of the total samples during any 30-day period exceed 400/100 ml.
<i>Data Used to Assess Water Quality:</i>	Five of 12 samples exceeded the water quality objective (CCAMP, 2004).
<i>Spatial Representation:</i>	Two stations.
<i>Temporal Representation:</i>	Monthly sampling events. Samples taken from 12/1997 to 12/1998; 12 sampling dates).
<i>Data Quality Assessment:</i>	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.

Region 3

Water Segment: San Lorenzo Creek

Pollutant: Fecal Coliform

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.3 of the Listing Policy. Under section 4.3 a single line of evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. The sample size was insufficient to determine whether water quality standards were being met or exceeded in the water body.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of not removing this water segment-pollutant combination on the section 303(d) list in the Water Quality Limited Segments category.

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. Nine of 15 samples exceeded the Basin Plan water quality objective, however there is not enough data to determine if standards are being met or exceeded with the confidence and power 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.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it could not be determined if applicable water quality standards are exceeded or being met.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	R1 - Water Contact Recreation
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Fecal coliform concentration, based on minimum of not less than five samples or any 30-day period, shall not exceed a log mean of 200/100 ml, nor shall more than ten percent of the total samples during any 30-day period exceed 400/100 ml.
<i>Data Used to Assess Water Quality:</i>	Nine of 15 samples exceeded the water quality objective (CCAMP, 2004).
<i>Spatial Representation:</i>	One site.
<i>Temporal Representation:</i>	Monthly sampling events.
<i>Data Quality Assessment:</i>	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.

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Original Fact Sheets

Fact Sheets Not Changed
from September 2005 Version

Region 3

Water Segment: Alamo Creek

Pollutant: Fecal Coliform

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.3 (Bacteria) of the Listing Policy. Under section 4.3 a single line of evidence is adequate to assess listing status.

At least one line of evidence is available in the administrative record to assess this pollutant. Per Table 4.2 of the Policy, at least 26 numeric samples are required in order to reliably compare data against an applicable water quality objective. However, a total of less than 26 numeric samples are available in this case.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Less than 26 samples were available for analysis. More samples are needed in order to reliably determine if a water quality objective is exceeded.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: R1 - Water Contact Recreation

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: Fecal coliform concentration, based on minimum of not less than five samples or any 30-day period, shall not exceed a log mean of 200/100 ml, nor shall more than ten percent of the total samples during any 30-day period exceed 400/100 ml.

Data Used to Assess Water Quality: Eight of 14 samples exceed the water quality objective (CCAMP, 2004).

Spatial Representation: There was one sampling site on Alamo Creek.

Temporal Representation: Monthly sampling events.

Data Quality Assessment: Central Coast Ambient Monitoring Program (CCAMP) QA/QC.

Region 3

Water Segment: Alisal Creek (Salinas)

Pollutant: Fecal Coliform

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.3 (Bacteria) of the Listing Policy. Under section 4.3 a single line of evidence is adequate to assess listing status.

At least one line of evidence is available in the administrative record to assess this pollutant. Per Table 4.2 of the Policy, at least 26 numeric samples are required in order to reliably compare data against an applicable water quality objective. However, a total of less than 26 numeric samples are available in this case.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Less than 26 samples were available for analysis. More samples are needed in order to reliably determine if a water quality objective is exceeded.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: R1 - Water Contact Recreation

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: Fecal coliform concentration, based on minimum of not less than five samples or any 30-day period, shall not exceed a log mean of 200/100 ml, nor shall more than ten percent of the total samples during any 30-day period exceed 400/100 ml.

Data Used to Assess Water Quality: Five of 6 samples exceed the water quality objective (CCAMP, 2004).

Spatial Representation: There was one sampling site.

Temporal Representation: Summer, fall, and winter sampling events.

Data Quality Assessment: CCAMP QAPP.

Region 3

Water Segment: Alisal Creek (Salinas)

Pollutant: Nitrates

Decision: Do Not Delist

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

At least one line of evidence is available in the administrative record to assess this pollutant. Per Table 4.1 of the Policy, at least 28 numeric samples are required in order to reliably compare data against an applicable water quality objective. However, a total of less than 28 numeric samples are available in this case.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Less than 28 samples were available for analysis. More samples are needed in order to reliably determine if a water quality objective is exceeded.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: MU - Municipal & Domestic

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Primary MCL -- 45.0 mg/L (as nitrate)

*Data Used to Assess Water
Quality:* Six samples, five exceedances (CCAMP, 2004).

Spatial Representation: 1 sample site.

Temporal Representation: Monthly sampling. Sample taken from 7/28/99-2/10/00.

Data Quality Assessment: CCAMP.

Region 3

Water Segment: Arroyo Burro Creek

Pollutant: Pathogens

Decision: Do Not Delist

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

One line of evidence is available in the administrative record to assess this pollutant. A large number of samples exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. Fourteen of 33 total samples exceeded the REC-1 fecal coliform water quality objective and this exceeds 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: AG - Agricultural Supply, CO - Cold Freshwater Habitat

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan Water Quality Objectives.
Pathogens/Bacteria (i.e. Fecal coliform) to REC-1 Beneficial Use.

Evaluation Guideline: Fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, shall not exceed a log mean of 200/100 ml, nor shall more than 10% of total samples during any 30-day period exceed 400/100 ml.

Data Used to Assess Water Quality: CCAMP data at Cliff drive shows 14 exceedances out of 33 total samples at our coastal confluences site (CCAMP, 2004).

Spatial Representation: Cliff Drive at the Coastal Confluences site on Arroyo Burro Creek.

Temporal Representation: Measurements were taken from 1/16/01 to 12/8/04.

Data Quality Assessment: CCAMP data.

Region 3

Water Segment: Atascadero Creek (San Luis Obispo County)

Pollutant: Dissolved oxygen saturation

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.2 (Conventional and Other Pollutants) of the Listing Policy. Under section 4.2 a single line of evidence is adequate to assess listing status.

At least one line of evidence is available in the administrative record to assess this pollutant. Per Table 4.2 of the Policy, at least 26 numeric samples are required in order to reliably compare data against an applicable water quality objective. However, a total of less than 26 numeric samples are available in this case.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Less than 26 samples were available for analysis. More samples are needed in order to reliably determine if a water quality objective is exceeded.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: CO - Cold Freshwater Habitat, WA - Warm Freshwater Habitat

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Dissolved oxygen concentration shall not be reduced below 7.0 mg/L at any time.

Data Used to Assess Water Quality: Twelve of 18 samples exceeded the water quality objective (CCAMP, 2004).

Spatial Representation: There was one sampling site.

Temporal Representation: There was monthly sampling.

Environmental Conditions: Samples taken from 4/7/99 to 5/15/00 on 18 sampling dates.

Data Quality Assessment: CCAMP

Region 3

Water Segment: Atascadero Creek (San Luis Obispo County)

Pollutant: Fecal Coliform

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.3 (Bacteria) of the Listing Policy. Under section 4.3 a single line of evidence is adequate to assess listing status.

At least one line of evidence is available in the administrative record to assess this pollutant. Per Table 4.2 of the Policy, at least 26 numeric samples are required in order to reliably compare data against an applicable water quality objective. However, a total of less than 26 numeric samples are available in this case.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Less than 26 samples were available for analysis. More samples are needed in order to reliably determine if a water quality objective is exceeded.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: R1 - Water Contact Recreation

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: Fecal coliform concentration, based on minimum of not less than five samples or any 30-day period, shall not exceed a log mean of 200/100 ml, nor shall more than ten percent of the total samples during any 30-day period exceed 400/100 ml.

Data Used to Assess Water Quality: Four of 14 samples exceeded the water quality objectives (CCAMP, 2004).

Spatial Representation: There was 1 sampling site.

Temporal Representation: There were monthly sampling events.

Environmental Conditions: Samples taken 4/99 to 5/00 at 16 sample dates. Some sampling dates have multiple samples.

Data Quality Assessment: CCAMP

Region 3

Water Segment: Bradley Canyon Creek

Pollutant: Fecal Coliform

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.3 (Bacteria) of the Listing Policy. Under section 4.3 a single line of evidence is adequate to assess listing status.

At least one line of evidence is available in the administrative record to assess this pollutant. Per Table 4.2 of the Policy, at least 26 numeric samples are required in order to reliably compare data against an applicable water quality objective. However, a total of less than 26 numeric samples are available in this case.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Less than 26 samples were available for analysis. More samples are needed in order to reliably determine if a water quality objective is exceeded.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: R1 - Water Contact Recreation

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: Fecal coliform concentration, based on minimum of not less than five samples or any 30-day period, shall not exceed a log mean of 200/100 ml, nor shall more than ten percent of the total samples during any 30-day period exceed 400/100 ml.

Data Used to Assess Water Quality: There were 7 samples collected at the Foxen Canyon Road site (CCAMP, 2004). Four of these samples exceeded the 400 MPN/100 ml criteria.

Spatial Representation: Three stations were sampled.

Temporal Representation: Sampling occurred monthly.

Data Quality Assessment: CCAMP data.

Region 3

Water Segment: Bradley Channel

Pollutant: Fecal Coliform

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.3 (Bacteria) of the Listing Policy. Under section 4.3 a single line of evidence is adequate to assess listing status.

At least one line of evidence is available in the administrative record to assess this pollutant. Per Table 4.2 of the Policy, at least 26 numeric samples are required in order to reliably compare data against an applicable water quality objective. However, a total of less than 26 numeric samples are available in this case.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Less than 26 samples were available for analysis. More samples are needed in order to reliably determine if a water quality objective is exceeded.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: R1 - Water Contact Recreation

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: Fecal coliform concentration, based on minimum of not less than five samples or any 30-day period, shall not exceed a log mean of 200/100 ml, nor shall more than ten percent of the total samples during any 30-day period exceed 400/100 ml.

Data Used to Assess Water Quality: Nine of 14 samples exceeded water quality objective (CCAMP, 2004).

Spatial Representation: Samples were collected from one site.

Temporal Representation: Monthly sampling events from January 2000 - February 2001.

Environmental Conditions: Samples taken from 1/00 to 2/01; 14 sampling dates.

Data Quality Assessment: CCAMP.

Region 3

Water Segment: Cholame Creek

Pollutant: Fecal Coliform

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.3 (Bacteria) of the Listing Policy. Under section 4.3 a single line of evidence is adequate to assess listing status.

At least one line of evidence is available in the administrative record to assess this pollutant. Per Table 4.2 of the Policy, at least 26 numeric samples are required in order to reliably compare data against an applicable water quality objective. However, a total of less than 26 numeric samples are available in this case.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Less than 26 samples were available for analysis. More samples are needed in order to reliably determine if a water quality objective is exceeded.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: R1 - Water Contact Recreation

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Fecal Coliform WQO applicable to REC1.

Data Used to Assess Water Quality: Eight of 10 samples exceed water quality objectives (CCAMP, 2004).

Spatial Representation: One site.
Temporal Representation: Monthly sampling events.
Environmental Conditions: Data age = 2-3 years old.
Data Quality Assessment: CCAMP

Region 3

Water Segment: Llagas Creek

Pollutant: Chloride

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.2 (Conventional and Other Pollutants) of the Listing Policy. Under section 4.2 a single line of evidence is adequate to assess delisting status.

One line of evidence is available in the administrative record to assess this pollutant. Per Table 4.2 of the Policy, a sufficient number of samples exceed the applicable water quality objective.

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

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. Seventy-eight out of 78 samples exceeded the applicable chloride water quality objective and this exceeds the maximum allowable frequency necessary to delist from Table 4.2 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.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: AG - Agricultural Supply

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: 106 mg/L for chloride.

Data Used to Assess Water Quality: There were a total of 78 water samples and all 78 samples exceeded the water quality objective (CCAMP, 2004).

Spatial Representation: There were 4 sampling stations.
Temporal Representation: There were quarterly sampling events.
Data Quality Assessment: South County Regional Wastewater Authority (SCRWA) QA/QC.

Region 3

Water Segment: Llagas Creek

Pollutant: Fecal Coliform

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.3 (Bacteria) of the Listing Policy. Under section 4.3 a single line of evidence is adequate to assess listing status.

At least one line of evidence is available in the administrative record to assess this pollutant. Using an exceedence frequency of 10% per the Policy's binomial test results or formulae in table 4.2, a sufficient number of samples exceed the applicable bacterial objective.

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

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. Twenty-six of 41 samples exceeded the applicable bacteria water quality objective and this exceeds the maximum allowable frequency necessary to delist, as listed in or calculated from Table 4.2 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.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: R1 - Water Contact Recreation

Matrix: Water

**Water Quality Objective/
Water Quality Criterion:** Basin Plan: Fecal coliform concentration, based on minimum of not less than five samples or any 30-day period, shall not exceed a log mean of 200/100 ml, nor shall more than ten percent of the total samples during any 30-day period exceed 400/100 ml.

Data Used to Assess Water Quality: Forty one bacteria samples and 26 samples exceeding (63%) the water quality objective (CCAMP, 2004).

Spatial Representation: Three stations.

Temporal Representation: Monthly sampling events.

Data Quality Assessment: Central Coast Ambient Monitoring Program (CCAMP) QA/QC.

Region 3

Water Segment: Main Street Canal

Pollutant: Nitrates

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.2 (Conventional and Other Pollutants) of the Listing Policy. Under section 4.2 a single line of evidence is adequate to assess listing status.

At least one line of evidence is available in the administrative record to assess this pollutant. Per Table 4.2 of the Policy, at least 26 numeric samples are required in order to reliably compare data against an applicable water quality objective. However, a total of less than 26 numeric samples are available in this case.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Less than 26 samples were available for analysis. More samples are needed in order to reliably determine if a water quality objective is exceeded.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: MU - Municipal & Domestic

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: 45 mg/L (as Nitrate).

Data Used to Assess Water Quality: There were 10 water samples with 6 samples exceeding (60%) the water quality objective (CCAMP, 2004).

Spatial Representation: There was 1 sampling site.

Temporal Representation: There were monthly sampling events.

Data Quality Assessment: Central Coast Ambient Monitoring Program (CCAMP) QA/QC.

Region 3

Water Segment: Moro Cojo Slough

Pollutant: Oxygen, Dissolved

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.2 (Conventional and Other Pollutants) of the Listing Policy. Under section 4.2 a single line of evidence is adequate to assess listing status.

At least one line of evidence is available in the administrative record to assess this pollutant. Per Table 4.2 of the Policy, at least 26 numeric samples are required in order to reliably compare data against an applicable water quality objective. However, a total of less than 26 numeric samples are available in this case.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Less than 26 samples were available for analysis. More samples are needed in order to reliably determine if a water quality objective is exceeded.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: CO - Cold Freshwater Habitat, WA - Warm Freshwater Habitat

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* COLD: Dissolved oxygen concentration shall not be reduced below 7.0 mg/L at any time.

WARM: Dissolved oxygen concentration shall not be reduced below 5.0

mg/L at any time.

Data Used to Assess Water Quality:

Nine of the 14 samples exceeded the water quality objective (CCAMP, 2004).

Spatial Representation:

There was 1 sampling site. This site is tidally influenced and flow was observed moving into the slough out of the harbor (instead of flowing out to the harbor) on numerous occasions.

Temporal Representation:

There was monthly sampling. Samples taken from 3/1/1999 to 3/7/2000 over 13 sampling dates).

Data Quality Assessment:

Central Coast Ambient Monitoring Program (CCAMP) QA/QC.

Region 3

Water Segment: Nacimiento Reservoir

Pollutant: Mercury

Decision: Do Not Delist

Weight of Evidence: Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Four of the 4 samples exceeded the water quality objectives but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

Beneficial Use: CM - Commercial and Sport Fishing (CA)

Matrix: Tissue

*Water Quality Objective/
Water Quality Criterion:* Central Coast RWQCB Basin Plan: All waters shall be maintained free of toxic substances in concentrations that are toxic to, or produce detrimental physiological responses in human, plant, animal, or aquatic life.

Evaluation Guideline: OEHHA Screening Value of 0.3 µg/g for mercury.

Data Used to Assess Water Quality: Four out of 4 samples exceeded. Four filet composite samples of largemouth bass were collected (TSMP, 2002). All samples exceeded the guideline.

Spatial Representation: Two stations were sampled: Dip Creek arm of Lake Nacimiento and on Las Tablas Creek arm of Lake Nacimiento.

Temporal Representation:

Samples were collected annually in 1992-93 and 1996.

Data Quality Assessment:

Toxic Substances Monitoring Program 1992-93 Data Report.
Environmental Chemistry Quality Assurance and Data Report for the
Toxic Substances Monitoring Program, 1996-2000. Department of Fish
and Game.

Region 3

Water Segment: Nipomo Creek

Pollutant: Fecal Coliform

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.3 (Bacteria) of the Listing Policy. Under section 4.3 a single line of evidence is adequate to assess listing status.

At least one line of evidence is available in the administrative record to assess this pollutant. Per Table 4.2 of the Policy, at least 26 numeric samples are required in order to reliably compare data against an applicable water quality objective. However, a total of less than 26 numeric samples are available in this case.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Less than 26 samples were available for analysis. More samples are needed in order to reliably determine if a water quality objective is exceeded.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: R1 - Water Contact Recreation

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: Fecal coliform concentration, based on minimum of not less than five samples or any 30-day period, shall not exceed a log mean of 200/100 ml, nor shall more than ten percent of the total samples during any 30-day period exceed 400/100 ml.

Data Used to Assess Water Quality: Twenty-five bacteria samples were collected with 18 samples (72%) exceeding the water quality objective (CCAMP, 2004).

Spatial Representation: There were two sampling sites.

Temporal Representation: There were monthly sampling events.

Environmental Conditions: Data age = 1-2 years old.

Data Quality Assessment: Central Coast Ambient Monitoring Program (CCAMP) QA/QC.

Region 3

Water Segment: Old Salinas River Estuary

Pollutant: Fecal Coliform

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.3 (Bacteria) of the Listing Policy. Under section 4.3 a single line of evidence is adequate to assess listing status.

At least one line of evidence is available in the administrative record to assess this pollutant. Per Table 4.2 of the Policy, at least 26 numeric samples are required in order to reliably compare data against an applicable water quality objective. However, a total of less than 26 numeric samples are available in this case.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Less than 26 samples were available for analysis. More samples are needed in order to reliably determine if a water quality objective is exceeded.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: R1 - Water Contact Recreation

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: Fecal coliform concentration, based on minimum of not less than five samples or any 30-day period, shall not exceed a log mean of 200/100 ml, nor shall more than ten percent of the total samples during any 30-day period exceed 400/100 ml.

Data Used to Assess Water Quality: There were nineteen samples with 6 samples exceeding the water quality objective (CCAMP, 2004).

Spatial Representation: There were 2 sampling stations.

Temporal Representation: Monthly sampling events. Samples taken from 4/99 to 2/00.

Data Quality Assessment: Central Coast Ambient Monitoring Program.

Region 3

Water Segment: Old Salinas River Estuary

Pollutant: Oxygen, Dissolved

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.2 (Conventional and Other Pollutants) of the Listing Policy. Under section 4.2 a single line of evidence is adequate to assess delisting status.

At least one line of evidence is available in the administrative record to assess this pollutant. Per Table 4.2 of the Policy, a sufficient number of samples exceed the applicable water quality objective.

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

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. Eleven out of 28 samples exceeded the applicable DO water quality objective and this exceeds the maximum allowable frequency necessary to delist from Table 4.2 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.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: BI - Preserva.of Bio.Hab.of Spec.Signif., CO - Cold Freshwater Habitat, ES - Estuarine Habitat, MI - Fish Migration, RA - Rare & Endangered Species, SP - Fish Spawning, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix: Water

<i>Water Quality Objective/ Water Quality Criterion:</i>	COLD: Dissolved oxygen concentration shall not be reduced below 7.0 mg/L at any time. WARM: Dissolved oxygen concentration shall not be reduced below 5.0 mg/L at any time.
<i>Data Used to Assess Water Quality:</i>	Twenty-eight samples with 11 samples exceeding the water quality objectives (CCAMP, 2004).
<i>Spatial Representation:</i>	There were two sampling sites.
<i>Temporal Representation:</i>	Monthly sampling. Samples taken from 3/1/99 to 3/7/00 over 14 sampling dates.
<i>Data Quality Assessment:</i>	CCAMP.

Region 3

Water Segment: Orcutt Creek

Pollutant: Fecal Coliform

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.3 (Bacteria) of the Listing Policy. Under section 4.3 a single line of evidence is adequate to assess listing status.

At least one line of evidence is available in the administrative record to assess this pollutant. Per the binomial test results or formulae in Table 4.2 of the Policy, using an exceedance frequency of 10 percent, a sufficient number of samples exceed the applicable bacterial objective.

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

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. Thirty-one of 50 samples exceeded the applicable bacteria water quality objective and this exceeds the maximum allowable frequency necessary to delist, as listed in or calculated from Table 4.2 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.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: R1 - Water Contact Recreation

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: Fecal coliform concentration, based on minimum of not less than five samples or any 30-day period, shall not exceed a log mean of 200/100 ml, nor shall more than ten percent of the total samples during any 30-day period exceed 400/100 ml.

Data Used to Assess Water Quality: Thirty-one of 50 samples exceed the water quality objective (CCAMP, 2004).

Spatial Representation: Three sampling sites.

Temporal Representation: Monthly sampling events.

Data Quality Assessment: Central Coast Ambient Monitoring Program (CCAMP) QA/QC.

Region 3

Water Segment: Orcutt Creek

Pollutant: Nitrates

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.2 (Conventional and Other Pollutants) of the Listing Policy. Under section 4.2 a single line of evidence is adequate to assess delisting status.

At least one line of evidence is available in the administrative record to assess this pollutant. Per Table 4.2 of the Policy, a sufficient number of samples exceed the applicable water quality objective.

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

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. Thirty-one of 45 samples exceeded the applicable nitrate water quality objective and this exceeds the maximum allowable frequency necessary to delist from Table 4.2 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.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: MU - Municipal & Domestic

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: 45 mg/L (as Nitrate).

*Data Used to Assess Water
Quality:* Thirty-one of 45 samples exceed the water quality objective (CCAMP, 2004).

Spatial Representation: Three sampling sites.
Temporal Representation: Monthly sampling events. Samples taken from 1/12/00 to 2/28/01.
Data Quality Assessment: Central Coast Ambient Monitoring Program (CCAMP) QA/QC.

Region 3

Water Segment: Oso Flaco Creek

Pollutant: Nitrate as Nitrate (NO₃)

Decision: Do Not Delist

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

One line of evidence is available in the administrative record to assess this pollutant. A sufficient number of samples exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. Fifteen of 15 samples exceeded the water quality objective for nitrate (as NO₃) for municipal and domestic supply and this exceeds 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: MU - Municipal & Domestic

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Waters shall not contain concentrations of chemical constituents in excess of the limits specified in California Code of Regulations, Title 22, Article 4, Chapter 15, Section 64435, Tables 2 and 3 as listed in Table 3-2 (Region 3 Basin Plan, p III-3; In Table 3-2, the MCL for Nitrate (as NO₃) in Domestic or Municipal Supply is 45 mg/L).

Data Used to Assess Water Quality: Fifteen out of 15 samples exceeded the water quality objective for nitrate (as NO₃) for municipal and domestic supply (CCAMP, 2004; SWAMP, 2004).

Spatial Representation: Samples collected from one site.

Temporal Representation: Samples were collected from February 2000 to March 2001.

Environmental Conditions: The water body is located in the Santa Maria hydrologic unit, Guadalupe hydrologic area, Guadalupe hydrologic subarea. The site is located at Little Oso Flaco Creek (312 OFN) and is tributary to Oso Flaco Creek.

Data Quality Assessment: CCAMP, SWAMP QAPP.

Region 3

Water Segment: Oso Flaco Lake

Pollutant: Nitrates

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for delisting under sections 4.1 of the Listing Policy. Under section 4.1 a single line of evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. Fish kills, algae and other evidence of eutrophication have been witnessed by the RWQCB at this site.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination on the section 303(d) list in the Water Quality Limited Segments category.

This conclusion is based on the staff findings that:

1. A numeric water quality objective or evaluation guideline is not available that complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. RWQCB collected 16 samples at one location.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: GW - Groundwater Recharge

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.

Evaluation Guideline: The 45 mg/L MCL for nitrates should be used.

Data Used to Assess Water Quality: Sixteen samples were collected (CCAMP, 2004).

Spatial Representation: There was one sampling station.

Temporal Representation: There were monthly sampling events.

Environmental Conditions: Fish kills, algae and other evidence of eutrophication have been witnessed by the RWQCB at this site.

Data Quality Assessment: Central Coast Ambient Monitoring Program (CCAMP) QA/QC.

Region 3

Water Segment: Salinas Reclamation Canal

Pollutant: Fecal Coliform

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.2 of the Listing Policy. Under section 4.2 a single line of evidence is necessary to assess delisting status.

One line of evidence is available in the administrative record to assess this pollutant. A sufficient number of samples exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. Thirty-three of 37 samples exceeded the water quality objective and this exceeds the allowable frequency listed in Table 4.2 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	R1 - Water Contact Recreation
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Fecal coliform concentration, based on minimum of not less than five samples or any 30-day period, shall not exceed a log mean of 200/100 ml, nor shall more than ten percent of the total samples during any 30-day period exceed 400/100 ml.
<i>Data Used to Assess Water Quality:</i>	Thirty-three of 37 samples exceeded the water quality objective (CCAMP, 2004).
<i>Spatial Representation:</i>	Three stations.
<i>Temporal Representation:</i>	Monthly sampling events.
<i>Data Quality Assessment:</i>	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.

Region 3

Water Segment:	Salinas River (lower, estuary to near Gonzales Rd crossing, watersheds 30910 and 30920)
Pollutant:	Fecal Coliform
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.2 of the Listing Policy. Under section 4.2 a single line of evidence is necessary to assess delisting status.</p> <p>One line of evidence is available in the administrative record to assess this pollutant. A sufficient number of samples exceed the water quality objective.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">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. Fourteen of 54 samples exceeded the water quality objective and this exceeds the allowable frequency listed in Table 4.2 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 met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	R1 - Water Contact Recreation
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Fecal coliform concentration, based on minimum of not less than five samples or any 30-day period, shall not exceed a log mean of 200/100 ml, nor shall more than ten percent of the total samples during any 30-day period exceed 400/100 ml.
<i>Data Used to Assess Water Quality:</i>	Fourteen of 54 samples exceeded the water quality objective (CCAMP, 2004).
<i>Spatial Representation:</i>	Four stations.
<i>Temporal Representation:</i>	Monthly sampling events. Samples taken from 2/99 to 2/00; 13 sampling dates (some sampling dates have multiple samples).
<i>Data Quality Assessment:</i>	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.

Region 3

Water Segment:	Salinas River (upper, confluence of Nacimiento River to Santa Margarita Reservoir)
Pollutant:	Chloride
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.1 of the Listing Policy. Under section 4.1 a single line of evidence is necessary to assess delisting status.</p> <p>One line of evidence is available in the administrative record to assess this pollutant. A large number of samples exceed the water quality objective.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">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. Forty-two of 42 samples exceeded the water quality objective and this exceeds 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 met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	MU - Municipal & Domestic
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: 20 mg/L.
<i>Data Used to Assess Water Quality:</i>	Forty-two of 42 samples exceeded the water quality objective (CCAMP, 2004).
<i>Spatial Representation:</i>	Three stations.
<i>Temporal Representation:</i>	Monthly sampling events.
<i>Data Quality Assessment:</i>	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.

Region 3

Water Segment:	Salinas River (upper, confluence of Nacimiento River to Santa Margarita Reservoir)
Pollutant:	Sodium
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.1 of the Listing Policy. Under section 4.1 a single line of evidence is necessary to assess delisting status.</p> <p>One line of evidence is available in the administrative record to assess this pollutant. A large number of samples exceed the water quality objective.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">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. Thirty-two of 32 samples exceed the water quality objective and this exceeds 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 met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	AG - Agricultural Supply
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: 20 mg/L.
<i>Data Used to Assess Water Quality:</i>	Thirty-two of 32 samples exceed the water quality objective (CCAMP, 2004).
<i>Spatial Representation:</i>	Three stations.
<i>Temporal Representation:</i>	Monthly sampling.
<i>Data Quality Assessment:</i>	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.

Region 3

Water Segment: San Lorenzo Creek

Pollutant: Boron

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.2 of the Listing Policy. Under section 4.2 a single line of evidence is necessary to assess delisting status.

One line of evidence is available in the administrative record to assess this pollutant. A large number of samples exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. 10 of 10 samples exceeded the Basin Plan water quality objective and this exceeds the allowable frequency listed in Table 4.2 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: AG - Agricultural Supply

Matrix: Water

***Water Quality Objective/
Water Quality Criterion:*** Waters shall not contain concentrations of chemical constituents in amounts which adversely affect the agricultural beneficial use. In addition, waters used for irrigation and livestock watering shall not exceed concentrations for those chemicals listed in Table 3-4 (Region 3 Basin Plan, Section II.A.2 Objectives for all inland surface waters, enclosed bay, and estuaries, page III-5). In Table 3-4 of the Basin Plan (page III-9), the maximum concentration for boron for irrigation supply is 0.75 mg/L.

<i>Data Used to Assess Water Quality:</i>	Ten out of 15 samples exceeded the water quality objective for agricultural water use/ irrigation supply for boron (CCAMP, 2004; SWAMP, 2004).
<i>Spatial Representation:</i>	Samples were collected from two sites. Exceedances were detected in samples collected from both sites.
<i>Temporal Representation:</i>	Samples were collected from July 1999 through February 2000.
<i>Environmental Conditions:</i>	The water body is located in the Salinas hydrologic unit, Gabilan Range hydrologic area, Gabilan Range hydrologic subarea. Monitoring sites are located at San Lorenzo Creek at First Street in King City (309LOK), and San Lorenzo Creek at Bitterwater Road east of King City (309LOR).
<i>Data Quality Assessment:</i>	CCAMP, SWAMP QAPP.

Region 3

Water Segment: Santa Maria River

Pollutant: Fecal Coliform

Decision: Do Not Delist

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

One line of evidence is available in the administrative record to assess this pollutant. A sufficient number of samples exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. Seventeen of 33 samples exceeded the water quality objective and this exceeds 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	R1 - Water Contact Recreation
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Fecal coliform concentration, based on minimum of not less than five samples or any 30-day period, shall not exceed a log mean of 200/100 ml, nor shall more than ten percent of the total samples during any 30-day period exceed 400/100 ml.
<i>Data Used to Assess Water Quality:</i>	Seventeen of 33 samples exceeded the water quality objective (CCAMP, 2004).
<i>Spatial Representation:</i>	Three stations.
<i>Temporal Representation:</i>	Monthly sampling events.
<i>Data Quality Assessment:</i>	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.

Region 3

Water Segment: Santa Maria River

Pollutant: Nitrates

Decision: Do Not Delist

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

One line of evidence is available in the administrative record to assess this pollutant. A large number of samples exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. Twenty-three of 23 samples exceeded the water quality objective and this exceeds 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	MU - Municipal & Domestic
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: 45 mg/L (as Nitrate).
<i>Data Used to Assess Water Quality:</i>	Twenty-three of 23 samples exceeded the water quality objective (CCAMP, 2004).
<i>Spatial Representation:</i>	Two to three sampling sites.
<i>Temporal Representation:</i>	Monthly sampling events.
<i>Data Quality Assessment:</i>	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.

Region 3

Water Segment: Tembladero Slough

Pollutant: Fecal Coliform

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.2 of the Listing Policy. Under section 4.2 a single line of evidence is necessary to assess delisting status.

One line of evidence is available in the administrative record to assess this pollutant. A sufficient number of samples exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. Five of 8 samples exceeded the water quality objective and this exceeds 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	R1 - Water Contact Recreation
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Fecal coliform concentration, based on minimum of not less than five samples or any 30-day period, shall not exceed a log mean of 200/100 ml, nor shall more than ten percent of the total samples during any 30-day period exceed 400/100 ml.
<i>Data Used to Assess Water Quality:</i>	Five of 8 samples exceeded the water quality objective (CCAMP, 2004).
<i>Spatial Representation:</i>	One sampling site.
<i>Temporal Representation:</i>	Monthly sampling events.
<i>Data Quality Assessment:</i>	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.

Region 3

Water Segment: Tequisquita Slough

Pollutant: Fecal Coliform

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.2 of the Listing Policy. Under section 4.2 a single line of evidence is necessary to assess delisting status.

One line of evidence is available in the administrative record to assess this pollutant. Ten of the 16 samples were in exceedance of the water quality objective. This site is located adjacent to a bridge which hosts over 100 cliff swallow nests and there is rarely flow observed (site appears to have standing water).

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. Ten of 16 samples exceeded the water quality objective and this exceeds the allowable frequency listed in Table 4.2 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 met.

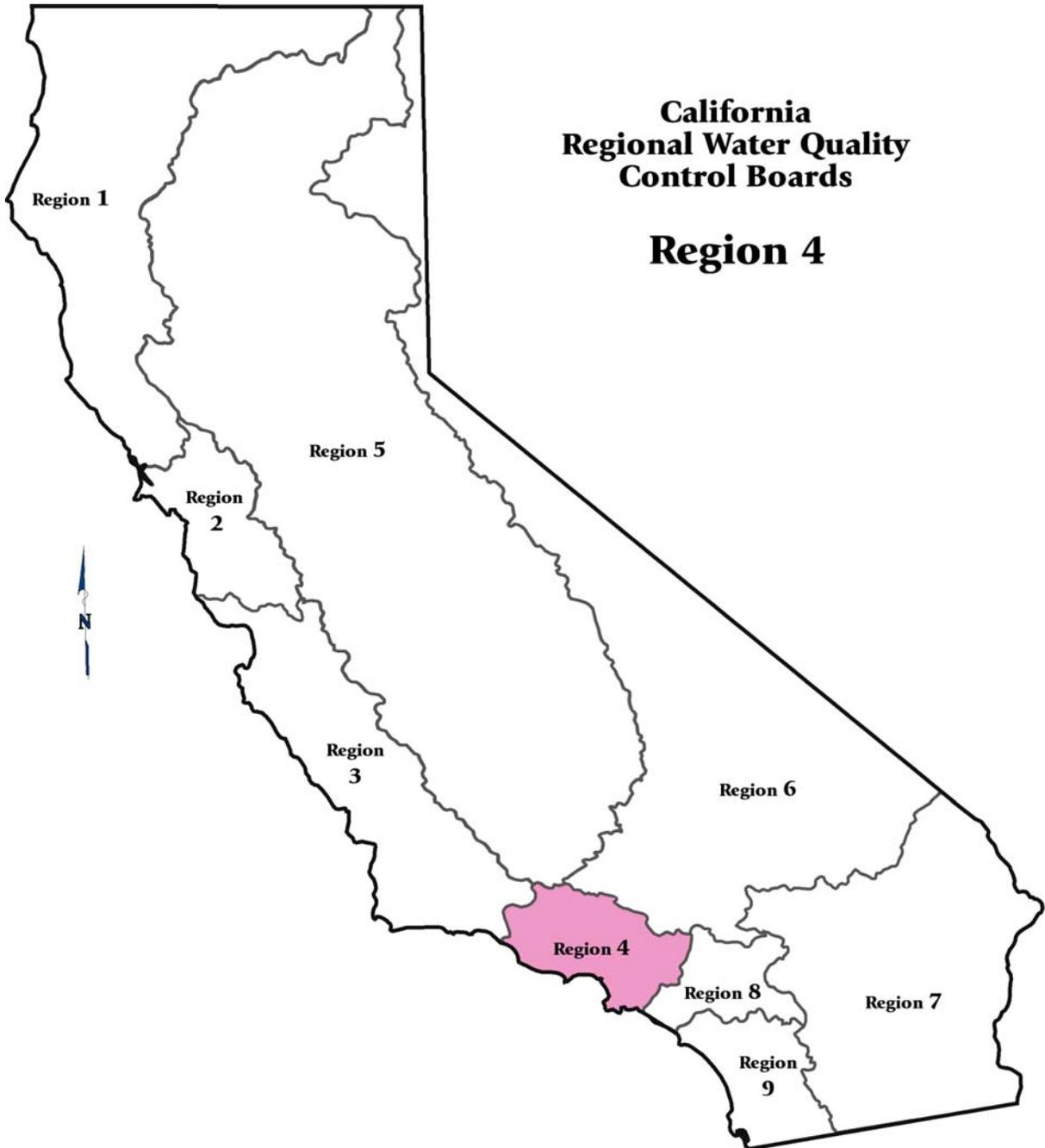
SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	R1 - Water Contact Recreation
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Fecal coliform concentration, based on minimum of not less than five samples or any 30-day period, shall not exceed a log mean of 200/100 ml, nor shall more than ten percent of the total samples during any 30-day period exceed 400/100 ml.
<i>Data Used to Assess Water Quality:</i>	Ten of 16 samples exceeded the water quality objective (CCAMP, 2004). This site is located adjacent to a bridge which hosts over 100 cliff swallow nests and there is rarely flow observed (site appears to have standing water).
<i>Spatial Representation:</i>	One sampling station.
<i>Temporal Representation:</i>	Monthly sampling events.
<i>Data Quality Assessment:</i>	Central Coast Ambient Monitoring Program (CCAMP) QA/QC.

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Fact Sheets Supporting
“Do Not Delist” Recommendations



September 2006

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New or Revised Fact Sheets

New or Revised Fact Sheets

Region 4

Water Segment:	Calleguas Creek Reach 1 (was Mugu Lagoon on 1998 303(d) list)
Pollutant:	Mercury
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.5 of the Listing Policy. Two lines of evidence are available in the administrative record to assess this pollutant.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 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. Two of the 4 samples exceeded the OEHHA Screening Value. A TMDL is under development for this water body to address this pollutant. 4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Tissue
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA)
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	Los Angeles RWQCB Basin Plan: Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels which are harmful to aquatic life or human health.
<i>Evaluation Guideline:</i>	0.3 µg/g (OEHHA Screening Value)
<i>Data Used to Assess Water Quality:</i>	Two out of 4 samples exceeded. A total of 4 filet composite samples of gray smoothhound shark were collected. Shark were collected in 1992-94 and 1997. The guideline was exceeded in samples collected 1992-94. The 1997 sample did not exceed the guideline (TSMP, 2002).
<i>Spatial Representation:</i>	One station located at Laguna Road Bridge.
<i>Temporal Representation:</i>	Samples were collected annually 1992-94, 1997.
<i>Data Quality Assessment:</i>	Toxic Substances Monitoring Program 1992-93 and 1994-95 Data

Reports.
Environmental Chemistry Quality Assurance and Data Report for the
Toxic Substances Monitoring Program, 1996-2000. Department of Fish
and Game

Line of Evidence

Remedial Program in Place

Beneficial Use

CM - Commercial and Sport Fishing (CA)

*Data Used to Assess Water
Quality:*

A TMDL and implementation plan has been approved for this water
segment-pollutant combination. The Calleguas Creek Metals TMDL was
approved by the RWQCB in June of 2006 and subsequently approved by
USEPA.

Region 4

Water Segment:	Calleguas Creek Reach 1 (was Mugu Lagoon on 1998 303(d) list)
Pollutant:	Nickel
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.1 of the Listing Policy. Under section 4.1 a single line of evidence is necessary to assess delisting status.</p> <p>Two lines of evidence are available in the administrative record to assess this pollutant.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 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. Seven of the 75 samples exceeded the water quality objective. A TMDL is being developed in this water body to address this pollutant. 4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.
Lines of Evidence:	

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.
<i>Evaluation Guideline:</i>	CTR for saltwater for dissolved nickel, 74 ppb (acute) and 8.2 ppb (chronic).
<i>Data Used to Assess Water Quality:</i>	Originally there were 110 data points provided by the Naval Base. Larry Walker and Associates proposed deleting 61 of these data points in their analysis for the Calleguas Creek Characterization Study. Staff agree with

LWA on 35 of those data points (these observations were clearly in other designated reaches), and disagree on 26, due to uncertainty in the location of the sampling. There were 49 points LWA proposed keeping; combined with the 26, the number of samples is 75. There were 7 out of 75 which exceeded the CTR (CCWMP, 2006).

Spatial Representation: Various locations throughout the reach.
Temporal Representation: Samples collected between 1994 and 2004.
Data Quality Assessment: Data were collected by the Navy and for the Calleguas Creek Metals TMDL and Calleguas Creek Characterization Study.

Line of Evidence Remedial Program in Place
Beneficial Use ES - Estuarine Habitat
Data Used to Assess Water Quality: A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Calleguas Creek Metals TMDL was approved by the RWQCB in June of 2006 and subsequently approved by USEPA.

Region 4

Water Segment:	Calleguas Creek Reach 2 (estuary to Potrero Rd- was Calleguas Creek Reaches 1 and 2 on 1998 303d list)
Pollutant:	Copper
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.1 of the Listing Policy. Under section 4.1 a single line of evidence is necessary to assess delisting status. Two lines of evidence are available in the administrative record to assess this pollutant. Seven samples exceed the CTR dissolved copper continuous concentration in water for the protection of aquatic life. A TMDL is being developed in this water body for this pollutant.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. It is unknown whether 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. Seven of 11 samples exceeded the CTR dissolved copper continuous concentration. A TMDL is being developed in this water body for this pollutant.. 4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	WA - Warm Freshwater Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	CTR Copper Criterion for continuous concentration in water for the protection of aquatic life is expressed as a function of the total hardness of the water body.
<i>Data Used to Assess Water Quality:</i>	Eleven water samples, 7 samples exceeding for chronic standard (SWRCB, 2003).

Spatial Representation: Three sites.
Temporal Representation: Summer, fall, winter of 1998 and 1999.
Data Quality Assessment: Calleguas Creek Characterization Study.

Line of Evidence Remedial Program in Place
Beneficial Use WA - Warm Freshwater Habitat
Data Used to Assess Water Quality: A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Calleguas Creek Metals TMDL was approved by the RWQCB in June of 2006 and subsequently approved by USEPA.

Region 4

Water Segment: Coyote Creek

Pollutant: Copper

Decision: Do Not Delist

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

Two lines of applicable evidence are available in the administrative record to assess this pollutant. A sufficient number of samples exceeds the CTR dissolved copper criterion for continuous concentration (CCC) in water for the protection of aquatic life.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. Nineteen of 62 samples exceed the CTR Dissolved Copper Criterion for continuous concentration (CCC) in water for the protection of aquatic life and this exceeds the allowable frequency listed in Table 4.1 of the Listing Policy. Total copper data was also available but there is no guideline applicable to determine exceedances due to total copper.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and the pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: WA - Warm Freshwater Habitat

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* CTR Dissolved Copper Criterion for continuous concentration (CCC) in water for the protection of aquatic life is expressed as a function of the total hardness of the water body. The aquatic life criteria will vary depending of total hardness reported at the sampling site. The CCC for

	dissolved copper is the highest concentration to which aquatic life can be exposed for an extended period of time (four days) without deleterious effects. This criterion is linked and applicable for the protection of aquatic life Beneficial Uses.
<i>Data Used to Assess Water Quality:</i>	Numeric data generated from 62 samples taken from 11/10/97 to 1/7/05 at one to two-week sampling interval. Nineteen samples exceeded the dissolved copper continuous criterion concentration (CCC) (LARWQCB, 2006).
<i>Spatial Representation:</i>	Station S13 on Coyote Creek.
<i>Temporal Representation:</i>	Samples collected between 11/10/97 and 1/7/05.
<i>Data Quality Assessment:</i>	San Gabriel River metals TMDL monitoring.

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	RA - Rare & Endangered Species, WA - Warm Freshwater Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	There is no guideline for total copper.
<i>Data Used to Assess Water Quality:</i>	Numeric data generated from 21 samples taken from 10/30/00 to 4/30/03 at one to two-week sampling interval. It was not possible to determine any exceedances of total copper concentration in this water body because there is not guideline applicable to assess total copper (LACDPW, 2004).
<i>Spatial Representation:</i>	One sample site sampled during the dry and wet season beginning from 10/12/00 through 4/30/03 at approximately one to two week intervals.
<i>Temporal Representation:</i>	Twenty-one samples were taken during the wet and dry season from 10/12/00 to 4/30/03 at approximately one to two week intervals as part of the Los Angeles County Storm water monitoring program prepared by the Los Angeles County Department of Public Works.
<i>Environmental Conditions:</i>	The Coyote Creek Monitoring Station (S13) is located at the existing ACOE stream gauge station (Stream Gauge No. F354-R) below Spring Street in the lower San Gabriel River watershed. The site assists in determining mass loading for the San Gabriel River watershed. At this location, the upstream tributary area is 150 square miles (extending into Orange County). The sampling site was chosen to avoid backwater effects from the San Gabriel River. Coyote Creek, at the gauging station, is a concrete lined trapezoidal channel. The Coyote Creek sampling location has been an active stream gauging station since 1963.
<i>Data Quality Assessment:</i>	Evaluation of Analytes and QA/QC Specifications for Monitoring Program (Woodward-Clyde, 1996) Los Angeles County Department of Public Works.

Region 4

Water Segment:	Dominguez Channel (lined portion above Vermont Ave)
Pollutant:	DDT
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4, 4.5 and 4.6 of the Listing Policy. Three lines of evidence are available in the administrative record to assess this pollutant.</p> <p>There is tissue data available showing one sample which far exceeds the OEHHA screening value for DDT. In addition there is a fish consumption advisory which applies to this water body. No sediment data exists and there is no sediment quality guideline for this pollutant and that meets the requirements of section 6.1.3 of the Listing Policy.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification for maintaining the listing for this water segment-pollutant combination.</p> <p>This conclusion is based on the staff findings that tissue data showing an exceedance of water quality criteria in conjunction with a fish consumption advisory is enough to maintain the listing of this water body for this pollutant. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.</p>
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because applicable water quality standards or guidelines for the pollutant are exceeded and a Fish Consumption Advisory exists.
Lines of Evidence:	

<i>Numeric Line of Evidence</i>	Pollutant-Sediment
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA)
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.
<i>Evaluation Guideline:</i>	There is no sediment quality guideline for this pollutant that meets the requirements of section 6.1.3 of the Listing Policy.
<i>Data Used to Assess Water Quality:</i>	No sediment samples were ever collected in this water segment. The segment is concrete lined.
<i>Spatial Representation:</i>	No data collected in this water segment.

Temporal Representation: No data collected in this water segment.

Numeric Line of Evidence Pollutant-Tissue

Beneficial Use: CM - Commercial and Sport Fishing (CA)

Matrix: Tissue

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels which are harmful to aquatic life or human health.

Evaluation Guideline: OEHHA Screening Value of 100 µg/kg (Brodberg and Pollock, 1999).

Data Used to Assess Water Quality: One fish tissue sample (white croaker) had a DDT total level of 6,487 µg/kg, which far exceeds the OEHHA screening value (TSMP, 2002).

Spatial Representation: Station number 405.12.02

Temporal Representation: The sample was collected in 1992.

Data Quality Assessment: Toxic Substances Monitoring Program.

Line of Evidence Health Advisories

Beneficial Use CM - Commercial and Sport Fishing (CA)

Data Used to Assess Water Quality: A fish consumption advisory has been established for the DDT in the Los Angeles/Long Beach Harbor area. The advisory was established by the Office of Environmental Health Hazard Assessment.

Region 4

Water Segment:	Dominguez Channel (lined portion above Vermont Ave)
Pollutant:	Indicator Bacteria
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.3 of the Listing Policy. Under section 4.3 a single line of evidence is necessary to assess delisting status.</p> <p>Three lines of evidence are available in the administrative record to assess this pollutant. A large number of samples exceeded bacterial water quality objectives.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 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. Eleven of 12 samples exceed the fecal coliform objective of 400/100ml single sample limit, and 2 of 2 samples exceeded the objective of 400MPN/100 milliliters. The sample size is insufficient to determine whether water quality standards are being met or exceeded with the power and confidence 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 met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	R1 - Water Contact Recreation
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Los Angeles RWQCB Basin Plan Amendment to Revise Bacteria Objectives for Waters Designated for Water Contact Recreation: fecal coliform density 200/100 ml 30-day geometric mean, 400/100 ml single sample limit.

Data Used to Assess Water Quality: Four out of 4 samples exceeded the 400/100 ml limit, sample results ranged from 900 to 17,000 MPN

Spatial Representation: Samples were taken at the Dominguez Channel Monitoring Station (S23) which is located within the Dominguez Channel/Los Angeles Harbor watershed in Lennox, near Los Angeles International Airport (LAX). The monitoring station is near the intersection of 116th Street and Isis Avenue. The overall watershed land use is predominantly transportation, and includes areas of LAX and Interstate 105.

Temporal Representation: Samples were taken 1/30/01, 2/15/01, 2/28/01, and 3/7/01.

Environmental Conditions: According to the County of Los Angeles, Department of Public Works, Stormwater Monitoring Reports, 2000-2001 Monitoring Report samples were taken during storm events, the amount of rainfall was not noted.

Data Quality Assessment: Evaluation of Analytes and QA/QC Specifications for Monitoring Program (Woodward-Clyde, 1996) Los Angeles County Department of Public Works.

Numeric Line of Evidence Pollutant-Water

Beneficial Use: R1 - Water Contact Recreation

Matrix: Water

Water Quality Objective/ Water Quality Criterion: Los Angeles RWQCB Basin Plan Amendment to Revise Bacteria Objectives for Waters Designated for Water Contact Recreation: fecal coliform density 200/100 ml 30-day geometric mean, 400/100 ml single sample limit.

Data Used to Assess Water Quality: Two of 2 samples exceeded the 400/100 ml objective. One sample was 5,000, the other 6,000 MPN.

Spatial Representation: Samples were taken at the Dominguez Channel Monitoring Station (S28) which is located at Dominguez Channel and Artesia Boulevard in the City of Torrance. At this location, which was chosen to avoid tidal influence, the upstream tributary area is 33 square miles. The portion of the river where the monitoring site is located is a concrete-lined rectangular channel.

Temporal Representation: Samples were taken on 1/28/02 and 3/19/02.

Environmental Conditions: According to the County of Los Angeles, Department of Public Works, Stormwater Monitoring Reports, 2001-2002 Monitoring Report samples were taken during storm events, the amount of rainfall was not noted.

Data Quality Assessment: Evaluation of Analytes and QA/QC Specifications for Monitoring Program (Woodward-Clyde, 1996) Los Angeles County Department of Public Works.

Numeric Line of Evidence Pollutant-Water

Beneficial Use: R1 - Water Contact Recreation

Matrix: Water

<i>Water Quality Objective/ Water Quality Criterion:</i>	Los Angeles RWQCB Basin Plan Amendment to Revise Bacteria Objectives for Waters Designated for Water Contact Recreation: fecal coliform density 200/100 ml 30-day geometric mean, 400/100 ml single sample limit.
<i>Data Used to Assess Water Quality:</i>	Five out of six samples exceeded the 400/100 ml single sample limit (LADPW, 2003a).
<i>Spatial Representation:</i>	Samples were taken at the Dominguez Channel Monitoring Station (S28) which is located at Dominguez Channel and Artesia Boulevard in the City of Torrance. At this location, which was chosen to avoid tidal influence, the upstream tributary area is 33 square miles. The portion of the river where the monitoring site is located is a concrete-lined rectangular channel.
<i>Temporal Representation:</i>	Samples taken on 10/10/2002, 11/8/2002, 12/16/2002, 2/11/2003, and 3/15/2003 exceeded the objective. A sample taken on 4/30/03 did not exceed the objective.
<i>Environmental Conditions:</i>	According to the County of Los Angeles, Department of Public Works, Stormwater Monitoring Reports, 2002-2003 Monitoring Report samples were taken during storm events, however the amount of rainfall was not noted. Wet Weather during 11/8/2002, 12/16/2002, 2/11/2003, and 3/15/2003. Dry Weather during 10/10/2002 and 4/30/2003
<i>Data Quality Assessment:</i>	Evaluation of Analytes and QA/QC Specifications for Monitoring Program (Woodward-Clyde, 1996) Los Angeles County Department of Public Works.

Region 4

Water Segment:	Dominguez Channel (lined portion above Vermont Ave)
Pollutant:	Lead
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal on the section 303(d) list under section 4.1 of the Listing Policy. Under section 4.1 a single line of evidence is necessary to assess listing status.</p> <p>Two lines of evidence are available in the administrative record to assess this pollutant. None of the samples exceed the CTR Criteria.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing this water segment-pollutant combination on the section 303(d) list in the Water Quality Limited Segments category.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 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 the samples exceeded the CTR criteria however the sample size was insufficient to determine whether standards were met or exceeded with the confidence and power 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.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it could not be determined if standards were met or exceeded.
Lines of Evidence:	

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA - Warm Freshwater Habitat, WI - Wildlife Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	CTR dissolved lead criterion for continuous concentration (CCC) in water for the protection of aquatic life is expressed as a function of the total hardness of the water body. The aquatic life criteria will vary depending of total hardness reported at the sampling site.

	The CCC for dissolved lead is the highest concentration to which aquatic life can be exposed for an extended period of time (e.g., four days) without deleterious effects. These criteria are linked and applicable for the protection of aquatic life beneficial uses.
<i>Data Used to Assess Water Quality:</i>	The detection limit (5 µg/L) was too high to be valid for determining compliance with the CCC in 11 out of 12 samples taken at S23 in October 2000, and January through April 2001. If the detection limit is assumed to be equal to the concentration in the water, then, 11 of 12 samples would result in exceedances (LAC, 2003a).
<i>Spatial Representation:</i>	Samples were taken at the Dominguez Channel Monitoring Station (S23) which is located within the Dominguez Channel/Los Angeles Harbor watershed in Lennox, near Los Angeles International Airport (LAX). The monitoring station is near the intersection of 116th Street and Isis Avenue. The overall watershed land use is predominantly transportation, and includes areas of LAX and Interstate 105.
<i>Temporal Representation:</i>	Sampling occurred in October 2000 and January through April 2001.
<i>Environmental Conditions:</i>	According to the County of Los Angeles, Department of Public Works, Stormwater Monitoring Reports, 2000-2001 Monitoring Report samples were taken during storm events, the amount of rainfall was not noted.
<i>Data Quality Assessment:</i>	Evaluation of Analytes and QA/QC Specifications for Monitoring Program (Woodward-Clyde, 1996) Los Angeles County Department of Public Works. The detection limit was not sensitive enough to determine compliance with the criteria.

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA - Warm Freshwater Habitat, WI - Wildlife Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	CTR dissolved lead criterion for continuous concentration (CCC) in water for the protection of aquatic life is expressed as a function of the total hardness of the water body. The aquatic life criteria will vary depending of total hardness reported at the sampling site. The CCC for dissolved lead is the highest concentration to which aquatic life can be exposed for an extended period of time (e.g., four days) without deleterious effects. These criteria are linked and applicable for the protection of aquatic life beneficial uses. Calculation of the criteria based on ambient hardness at the time of sampling resulted in CCCs ranging from 0.23 to 7.27 µg/L.
<i>Data Used to Assess Water Quality:</i>	The positive quantification limit (5 µg/L) was too high to be valid for determining compliance with the CCC in 6 out of 6 samples taken at S28 in October 2002 through April 2003. If the positive quantification limit is assumed to be equal to the concentration in the water, then, all samples would result in exceedances (LAC, 2003a).
<i>Spatial Representation:</i>	Samples were taken at the Dominguez Channel Monitoring Station (S28) which is located at Dominguez Channel and Artesia Boulevard in the City of Torrance. At this location, which was chosen to avoid tidal influence, the upstream tributary area is 33 square miles. The portion of the river

where the monitoring site is located is a concrete-lined rectangular channel.

Temporal Representation: Samples were taken October through December 2002, and February through April 2003.

Environmental Conditions: According to the County of Los Angeles, Department of Public Works, Stormwater Monitoring Reports, 2002-2003 Monitoring Report samples were taken during storm events, the amount of rainfall was not noted.

Data Quality Assessment: Evaluation of Analytes and QA/QC Specifications for Monitoring Program (Woodward-Clyde, 1996) Los Angeles County Department of Public Works.

Region 4

Water Segment: Dominguez Channel (lined portion above Vermont Ave)

Pollutant: Zinc

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under section 4.1 of the Listing Policy. Under section 4.1 a single line of evidence is necessary to assess listing status.

Three lines of evidence are available in the administrative record to assess this pollutant. A number of samples exceed the CTR criteria for the protection of aquatic life. This water body pollutant was placed in the 2002 303(d) list for zinc in tissue in both segments (S23 and S28) of Dominguez Channel sampling stations.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing this water segment-pollutant combination on the section 303(d) list in the Water Quality Limited Segments category for the dissolved zinc.

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. Fifteen of 19 samples exceeded the CTR criteria, however the sample size is insufficient to determine if standards are met or exceeded with the confidence and power 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.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed on the section 303(d) list because it could not be determined if applicable water quality standards were exceeded or met.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA - Warm Freshwater Habitat, WI - Wildlife Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	CTR dissolved zinc criteria for continuous concentration (CCC) and maximum concentration (CMC) in water for the protection of aquatic life are expressed as a function of the total hardness of the water body. The aquatic life criteria will vary depending of total hardness reported at the sampling site. The CCC for dissolved zinc is the highest concentration to which aquatic life can be exposed for an extended period of time (e.g., four days) without deleterious effects. The CMC for dissolved zinc is the highest concentration to which aquatic life can be exposed for a short period of time (e.g., one hour) without deleterious effects. These criteria are linked and applicable for the protection of aquatic life beneficial uses.
<i>Data Used to Assess Water Quality:</i>	The single sample exceeded both the CCC and CMC (LACDPW, 2003a).
<i>Spatial Representation:</i>	Samples were taken at the Dominguez Channel Monitoring Station (S28) which is located at Dominguez Channel and Artesia Boulevard in the City of Torrance. At this location, which was chosen to avoid tidal influence, the upstream tributary area is 33 square miles. The portion of the river where the monitoring site is located is a concrete-lined rectangular channel.
<i>Temporal Representation:</i>	The single sample was taken on 1/28/02.
<i>Environmental Conditions:</i>	According to the County of Los Angeles, Department of Public Works, Stormwater Monitoring Reports, 2001-2002 Monitoring Report samples were taken during storm events, the amount of rainfall was not noted.
<i>Data Quality Assessment:</i>	Evaluation of Analytes and QA/QC Specifications for Monitoring Program (Woodward-Clyde, 1996) Los Angeles County Department of Public Works.

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA - Warm Freshwater Habitat, WI - Wildlife Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	CTR dissolved zinc criteria for continuous concentration (CCC) and maximum concentration (CMC) in water for the protection of aquatic life are expressed as a function of the total hardness of the water body. The aquatic life criteria will vary depending of total hardness reported at the sampling site.

	The CCC for dissolved zinc is the highest concentration to which aquatic life can be exposed for an extended period of time (e.g., four days) without deleterious effects. The CMC for dissolved zinc is the highest concentration to which aquatic life can be exposed for a short period of time (e.g., one hour) without deleterious effects. These criteria are linked and applicable for the protection of aquatic life beneficial uses.
<i>Data Used to Assess Water Quality:</i>	Twelve out of 12 samples exceed both the CCC and CMC (LACDPW, 2003a).
<i>Spatial Representation:</i>	Samples were taken at the Dominguez Channel Monitoring Station (S23) which is located within the Dominguez Channel/Los Angeles Harbor watershed in Lennox, near Los Angeles International Airport (LAX). The monitoring station is near the intersection of 116th Street and Isis Avenue. The overall watershed land use is predominantly transportation, and includes areas of LAX and Interstate 105.
<i>Temporal Representation:</i>	Samples were taken in October 2000, and in January through April 2001.
<i>Environmental Conditions:</i>	According to the County of Los Angeles, Department of Public Works, Stormwater Monitoring Reports, 2000-2001 Monitoring Report samples were taken during storm events, the amount of rainfall was not noted.
<i>Data Quality Assessment:</i>	Evaluation of Analytes and QA/QC Specifications for Monitoring Program (Woodward-Clyde, 1996) Los Angeles County Department of Public Works.

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA - Warm Freshwater Habitat, WI - Wildlife Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	CTR dissolved zinc criteria for continuous concentration (CCC) and maximum concentration (CMC) in water for the protection of aquatic life are expressed as a function of the total hardness of the water body. The aquatic life criteria will vary depending of total hardness reported at the sampling site.
	The CCC for dissolved zinc is the highest concentration to which aquatic life can be exposed for an extended period of time (e.g., four days) without deleterious effects. The CMC for dissolved zinc is the highest concentration to which aquatic life can be exposed for a short period of time (e.g., one hour) without deleterious effects. These criteria are linked and applicable for the protection of aquatic life beneficial uses.
<i>Data Used to Assess Water Quality:</i>	Two out of 6 samples exceeded both the CCC and CMC. The positive quantification limit (PQL) of 50 µg/L was too high to determine compliance of the sample taken on 3/15/03. If the PQL is used to determine compliance, then the sample taken on 3/15/03 also exceeded the criteria (LACDPW, 2003a).
<i>Spatial Representation:</i>	Samples were taken at the Dominguez Channel Monitoring Station (S28) which is located at Dominguez Channel and Artesia Boulevard in the City of Torrance. At this location, which was chosen to avoid tidal influence, the upstream tributary area is 33 square miles. The portion of the river

where the monitoring site is located is a concrete-lined rectangular channel.

Environmental Conditions:

According to the County of Los Angeles, Department of Public Works, Stormwater Monitoring Reports, 2002-2003 Monitoring Report samples were taken during storm events, the amount of rainfall was not noted.

Data Quality Assessment:

Evaluation of Analytes and QA/QC Specifications for Monitoring Program (Woodward-Clyde, 1996) Los Angeles County Department of Public Works.

Region 4

Water Segment:	Dominguez Channel Estuary (unlined portion below Vermont Ave)
Pollutant:	DDT
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under sections 4.5 and 4.6 of the Listing Policy. Three lines of evidence are available in the administrative record to assess this pollutant.</p> <p>There is tissue data available showing one sample that far exceeds the OEHHA screening value for DDT. In addition, there is a fish consumption advisory that applies to this water body. Sediment data has been collected in this water body but there is no sediment quality guideline for this pollutant that meets the requirements of section 6.1.3 of the Listing Policy.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification for maintaining the listing for this water segment-pollutant combination.</p> <p>This conclusion is based on the staff findings that tissue data showing an exceedance of water quality criteria in conjunction with a fish consumption advisory is enough to maintain the listing of this water body for this pollutant. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.</p>
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because applicable water quality standards or guidelines for the pollutant are exceeded and a Fish Consumption Advisory exists.
Lines of Evidence:	

Numeric Line of Evidence	Pollutant-Tissue
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA), ES - Estuarine Habitat, MA - Marine Habitat
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels which are harmful to aquatic life or human health.
<i>Evaluation Guideline:</i>	OEHHA Screening Value: 100 µg/kg (Brodberg and Pollock, 1999). The original listing was based on an EDL and MTRL. The Listing Policy does not allow the use of EDLs or MTRLs in listing or delisting decisions.

Data Used to Assess Water Quality: One fish tissue sample (white croaker) had DDT total level 6,487 µg/kg, which far exceeds the OEHHA screening value (TSMP, 2002).

Spatial Representation: Station number 405.12.02

Temporal Representation: The sample was collected in 1992.

Data Quality Assessment: Toxic Substances Monitoring Program.

Numeric Line of Evidence Pollutant-Sediment

Beneficial Use: CM - Commercial and Sport Fishing (CA), ES - Estuarine Habitat, MA - Marine Habitat

Matrix: Sediment

Water Quality Objective/ Water Quality Criterion: Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.

Evaluation Guideline: There is no sediment guideline for this pollutant that meets the requirements of section 6.1.3 of the Listing Policy.

Data Used to Assess Water Quality: Forty-three samples are available (LARWQCB and CCC, 2004).

Spatial Representation: Forty-three samples are spread throughout the water body.

Temporal Representation: Samples were collected between 1994 and 2002.

Data Quality Assessment: Bay Protection and Toxic Cleanup Program.
Contaminated Sediments Task Force Database.

Line of Evidence Health Advisories

Beneficial Use CM - Commercial and Sport Fishing (CA), ES - Estuarine Habitat, MA - Marine Habitat

Data Used to Assess Water Quality: A fish consumption advisory has been established for the DDT in the Los Angeles/Long Beach Harbor area. The advisory was established by the Office of Environmental Health Hazard Assessment.

Region 4

Water Segment:	Dominguez Channel Estuary (unlined portion below Vermont Ave)
Pollutant:	Lead
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.1 of the Listing Policy. Under section 4.1 a single line of evidence is necessary to assess delisting status.</p> <p>Four lines of evidence are available in the administrative record to assess this pollutant. A large number of sediment samples exceed the water quality objective.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 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. Twenty-nine of 93 sediment samples exceeded the water quality objective and this exceeds the allowable frequency listed in Table 4.1 of the Listing Policy. Also the one benthic community sample was of sufficient magnitude to indicate a linkage between pollutant and benthic community impacts. 4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Tissue
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA)
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels which are harmful to aquatic life or human health.
<i>Evaluation Guideline:</i>	There is no tissue guideline available for this pollutant that meets the requirements of section 6.1.3 of the Listing Policy. The original listing was based on an EDL and MTRL. The Listing Policy does not allow the use of

	EDLs or MTRLs in listing or delisting decisions.
<i>Data Used to Assess Water Quality:</i>	One tissue sample is available. Mussel watch monitoring data is not available in the water segment (TSMP, 2002).
<i>Spatial Representation:</i>	One station.
<i>Temporal Representation:</i>	The sample was collected in 1992.
<i>Data Quality Assessment:</i>	Toxic Substances Monitoring Program.

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA)
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.
<i>Evaluation Guideline:</i>	A Probable Effect Level of 112.18 µg/g was used (MacDonald et al., 1996).
<i>Data Used to Assess Water Quality:</i>	Of the 93 core and grab sediment samples, 29 exceeded the sediment quality guideline (Anderson et al., 1998).
<i>Spatial Representation:</i>	The ninety-three samples were spread throughout the water body.
<i>Temporal Representation:</i>	The samples were collected between 1994 and 2002.
<i>Data Quality Assessment:</i>	Bay Protection and Toxic Cleanup Program Other quality assurance described in the Contaminated Sediments Task Force Database.

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat, MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Los Angeles RWQCB Basin Plan: All waters should be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological response in, human, plant, animal, or aquatic life.
<i>Evaluation Guideline:</i>	Samples were considered toxic if (1) there was a significant difference in mean organism response between the sample and the control, and (2) the mean organism response in the test, as a percent of the control, was less than the threshold based on the 90th percentile minimum significant difference value.
<i>Data Used to Assess Water Quality:</i>	One toxicity sample that showed 61 percent survival which is considered toxic (Anderson et al., 1998).
<i>Spatial Representation:</i>	One station at H. Ford Bridge (BPTCP station 47010.0).
<i>Temporal Representation:</i>	The sample was collected in 1996.
<i>Data Quality Assessment:</i>	Bay Protection and Toxic Cleanup Program.

Numeric Line of Evidence	Population/Community Degradation
<i>Beneficial Use:</i>	ES - Estuarine Habitat, MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.
<i>Evaluation Guideline:</i>	Evaluation of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community (Anderson et al., 1998).
<i>Data Used to Assess Water Quality:</i>	One benthic community sample with a benthic index of 0.21 (Anderson et al., 1998).
<i>Spatial Representation:</i>	One station at H. Ford Bridge (BPTCP station 47010.0).
<i>Temporal Representation:</i>	The sample was collected in 1996.
<i>Environmental Conditions:</i>	Adjacent waters (Consolidated Slip) also has degraded benthic communities.
<i>Data Quality Assessment:</i>	Bay Protection and Toxic Cleanup Program (Stephenson et al., 1994).

Region 4

Water Segment: Los Angeles Harbor - Consolidated Slip

Pollutant: Dieldrin

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under sections 4.6 and 4.9 of the Listing Policy. Four lines of evidence are available in the administrative record to assess this pollutant.

This pollutant was placed on the 2002-303(d) list originally using a tissue guideline that is not allowed under section 6.1.3 of the Listing Policy. When evaluating this same tissue data using the appropriate OEHHA screening value, none of the 12 samples exceeded the screening value.

However, based on section 4.6, the site has significant sediment toxicity and the pollutant concentration exceeds the sediment guideline. The benthic community is impacted.

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

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Even though the tissue samples do not exceed the criteria, ten of 38 sediment samples exceeded the ERM for dieldrin in sediment, 13 out of 17 sediment samples exhibited significant toxicity, and 5 out of 11 sediment samples exhibited degraded conditions using the Relative Benthic Index (RBI). These lines of evidence show that the water body segment exceeds the allowable frequency listed in Table 4.1 of the Listing Policy. The benthic community in this water body is impacted and this pollutant is associated with this impact.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation:

After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because applicable water quality standards for the pollutant are exceeded and the benthic community is impacted.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA), MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use (LARWQCB, 1995).
<i>Evaluation Guideline:</i>	An Effects Range-Median of 8 ng/g was used (Long et al., 1995).
<i>Data Used to Assess Water Quality:</i>	Of 38 sediment samples (cores or grabs), 10 exceeded the sediment guideline (LARWQCB and CCC, 2004).
<i>Spatial Representation:</i>	Thirty-eight samples were collected throughout the estuary.
<i>Temporal Representation:</i>	Samples collected between 1992 and 1997.
<i>Data Quality Assessment:</i>	Contaminated Sediments Task Force Database (Stephenson et al. 1994) Bay Protection and Toxic Cleanup Program.

Numeric Line of Evidence	Pollutant-Tissue
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA), MA - Marine Habitat
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels which are harmful to aquatic life or human health (LARWQCB, 1995).
<i>Evaluation Guideline:</i>	OEHHA Screening Value: 2.0 µg/kg (Brodberg and Pollock, 1999).
<i>Data Used to Assess Water Quality:</i>	The guideline is not exceeded in any of the 12 measurements. The original listing was based on exceeding background levels rather than valid assessment guidelines (SMWP, 2004).
<i>Spatial Representation:</i>	One station.
<i>Temporal Representation:</i>	Samples collected annually from 1992 through 2003.
<i>Data Quality Assessment:</i>	State Mussel Watch Program.

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and

	-Protecting wildlife corridors.
<i>Evaluation Guideline:</i>	Significant toxicity as compared to control conditions.
<i>Data Used to Assess Water Quality:</i>	Thirteen of 17 samples were significantly toxic (Anderson et al., 1998).
<i>Spatial Representation:</i>	Samples were collected throughout the estuary.
<i>Temporal Representation:</i>	Samples were collected in 1994 and 1996.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan (Stephenson et al., 1994).

Numeric Line of Evidence

Population/Community Degradation

Beneficial Use:

MA - Marine Habitat

Matrix:

Sediment

*Water Quality Objective/
Water Quality Criterion:*

Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by:

- Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally,
- Protecting food supplies for fish and wildlife,
- Protecting reproductive and nursery areas, and
- Protecting wildlife corridors.

Basin Plan (LARWQCB, 1995): Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.

Evaluation Guideline:

Evaluation of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community (Anderson et al., 1998).

Data Used to Assess Water Quality:

Eleven samples are available with 5 exhibiting degraded conditions and 6 with transitional community characteristics (Anderson et al., 1998).

Spatial Representation:

The samples were collected throughout the water body.

Temporal Representation:

Samples were collected in 1992 and 1996.

Data Quality Assessment:

BPTCP Quality Assurance Project Plan (Stephenson et al., 1994).

Region 4

Water Segment:	Los Angeles Harbor - Fish Harbor
Pollutant:	DDT
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under sections 4.4 and 4.6 of the Listing Policy. Under section 4.6 two lines of evidence are necessary to assess delisting status.</p> <p>Three lines of evidence are available in the administrative record to assess this pollutant. There is an OEHHA fish consumption advisory in place for the Los Angeles/Long Beach Harbor area. There is no sediment quality guideline available to assess exceedances of DDT in sediment that complies with the requirements of section 6.1.3 of the Listing Policy but sediment toxicity has been observed. Under section 4.4 of the Listing Policy, any water body segment where a health advisory against consumption of edible resident organisms has been removed or the chemical or biological contaminant-specific evaluation guideline for tissue is no longer exceeded shall be removed from the section 303(d) list. In this case, there are no current tissue data available for evaluation, however, fish tissue samples from nearby areas of the harbor (outer harbor) exceed the fish tissue guideline for human consumption.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.</p> <p>This conclusion is based on the staff findings that, although there are no current tissue data available for evaluation, an OEHHA fish consumption advisory remains in place for this pollutant and fish tissue samples from nearby areas of the harbor (outer harbor) exceed the fish tissue guideline for human consumption. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.</p>
SWRCB Staff Recommendation:	<p>After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p>

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA), MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.
<i>Evaluation Guideline:</i>	No sediment quality guideline is available that complies with the requirements of section 6.1.3 of the Listing Policy.
<i>Data Used to Assess Water Quality:</i>	Twelve core and grab samples are available (LARWQCB and CCC, 2004).
<i>Spatial Representation:</i>	The samples are spread throughout the water body.
<i>Temporal Representation:</i>	The samples were collected in 1992 and 1999.
<i>Data Quality Assessment:</i>	Bay Protection and Toxic Cleanup Program QAPP. Quality assurance for other samples presented in the Contaminated Sediments Task Force Database.

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.
<i>Evaluation Guideline:</i>	Samples were considered toxic if (1) there was a significant difference in mean organism response between the sample and the control, and (2) the mean organism response in the test, as a percent of the control, was less than the threshold based on the 90th percentile minimum significant difference value.
<i>Data Used to Assess Water Quality:</i>	Overall, three of seven samples were toxic. This total was created from two different sediment studies within Fish Harbor. In one study, three of six samples were toxic (BPTCP). In the other, none of one sample was toxic (Bight, 1998) (LARWQCB & CCC, 2004).
<i>Spatial Representation:</i>	Seven sites were sampled throughout LA/LB Fish Harbor.
<i>Temporal Representation:</i>	Samples were collected in 1992, 1997 and 1998.
<i>Data Quality Assessment:</i>	Contaminated Sediment Task Force (2005) and references therein (BPTCP QAPP, Bight 98 QAPP).

<i>Line of Evidence</i>	Health Advisories
<i>Beneficial Use</i>	CM - Commercial and Sport Fishing (CA), MA - Marine Habitat
<i>Information Used to Assess Water Quality:</i>	A fish consumption advisory has been established for the DDT in the Los Angeles/Long Beach Harbor area. The advisory was established by the Office of Environmental Health Hazard Assessment.

Region 4

Water Segment: Los Angeles Harbor - Fish Harbor

Pollutant: Polychlorinated biphenyls

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under sections 4.4 and 4.6 of the Listing Policy. Under section 4.6, two lines of evidence are necessary to assess delisting status.

Three lines of evidence are available in the administrative record to assess this pollutant. There is an OEHHA fish consumption advisory in place for the Los Angeles/Long Beach Harbor area. There is no new information indicating that this health advisory has been removed or not applicable to this specific water segment. Although there are no current tissue data for evaluation, a sufficient number of samples exceeded sediment quality guidelines and sediment toxicity has been observed in this water body.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of not removing this water segment-pollutant combination on the section 303(d) list in the Water Quality Limited Segments category.

This conclusion is based on the staff findings that an OEHHA fish consumption advisory is in place for this pollutant, six of 13 sediment samples exceeded the 400 µg/L PCB sediment quality evaluation guideline, and sediment toxicity is observed. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Sediment

Beneficial Use: CM - Commercial and Sport Fishing (CA), MA - Marine Habitat

Matrix: Sediment

**Water Quality Objective/
Water Quality Criterion:** Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.

Evaluation Guideline: A sediment quality guideline of 400 ng/g was used (MacDonald et al., 2000).

Data Used to Assess Water Quality: Of the 13 samples available, 6 measurements exceeded the sediment quality guideline (LARWQCB and CCC, 2004).

Spatial Representation: The samples are spread throughout the water body.

Temporal Representation: The samples were collected in 1992, 1995, and 1999. All of the exceedances occurred in 1999.

Data Quality Assessment: Bay Protection and Toxic Cleanup Program QAPP. Quality assurance for other samples presented in the Contaminated Sediments Task Force Database.

Numeric Line of Evidence Toxicity

Beneficial Use: MA - Marine Habitat

Matrix: Sediment

Water Quality Objective/ Water Quality Criterion: Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.

Evaluation Guideline: Samples were considered toxic if (1) there was a significant difference in mean organism response between the sample and the control, and (2) the mean organism response in the test, as a percent of the control, was less than the threshold based on the 90th percentile minimum significant difference value.

Data Used to Assess Water Quality: Overall, three of seven samples were toxic. This total was created from two different sediment studies within Fish Harbor. In one study, three of six samples were toxic (BPTCP). In the other, none of one sample was toxic (Bight, 1998) (LARWQCB & CCC, 2004).

Spatial Representation: Seven sites were sampled throughout LA/LB Fish Harbor.

Temporal Representation: Samples were collected in 1992, 1997 and 1998.

Data Quality Assessment: Contaminated Sediment Task Force (2005) and references therein (BPTCP QAPP, Bight 98 QAPP).

Line of Evidence Health Advisories

Beneficial Use CM - Commercial and Sport Fishing (CA), MA - Marine Habitat

Information Used to Assess Water Quality: A fish consumption advisory has been established for the PCB in the Los Angeles/Long Beach Harbor area. The advisory was established by the Office of Environmental Health Hazard Assessment.

Region 4

Water Segment:	Los Angeles Harbor - Fish Harbor
Pollutant:	Polycyclic Aromatic Hydrocarbons (PAHs)
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for delisting under sections 4.6 of the Listing Policy. Under section 4.6 two lines of evidence are necessary to assess listing status.</p> <p>Two lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, a sufficient number of samples exceed the 1,442 ng/g low molecular and the 9,600 ng/g high molecular weight PAH sediment quality guidelines. The number of pollutant exceedances exceed the frequency allowed by the Listing Policy. Also, the water body segment exhibited sediment toxicity.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of not removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The sediment quality guideline used complies, with the requirements of section 6.1.3 of the Policy. 2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy. 3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy. 4. Five of 12 samples exceeded the 1,442 ng/g low molecular weight and 6 of 12 exceeded 9,600 ng/g high molecular weight PAH sediment quality guideline. The pollutant concentrations exceed the allowable frequency listed in Table 4.1 of the Listing Policy. Sediment toxicity is also observed. 5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.
Lines of Evidence:	

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment

<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.
<i>Evaluation Guideline:</i>	Sediment quality guidelines were used as follows: 1,800 µg/g for total PAHs (Fairey et al., 2001), 1,442 ng/g for low molecular weight PAHs (MacDonald et al., 1996), and 9,600 ng/g for high molecular weight PAHs (Long et al., 1995).
<i>Data Used to Assess Water Quality:</i>	Of the 12 sediment core and grab samples: none exceeded the total PAH sediment quality guideline, 5 measurements exceeded the low molecular weight PAH guideline, and 6 measurements exceeded the high molecular weight PAH guideline (LARWQCB and CCC, 2004).
<i>Spatial Representation:</i>	The samples were spread throughout the water body.
<i>Temporal Representation:</i>	Samples were collected in 1992 and 1999.
<i>Data Quality Assessment:</i>	Bay Protection and Toxic Cleanup Program QAPP. Quality assurance for other samples presented in the Contaminated Sediments Task Force Database.

<i>Numeric Line of Evidence</i>	Toxicity
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.
<i>Evaluation Guideline:</i>	Samples were considered toxic if (1) there was a significant difference in mean organism response between the sample and the control, and (2) the mean organism response in the test, as a percent of the control, was less than the threshold based on the 90th percentile minimum significant difference value.
<i>Data Used to Assess Water Quality:</i>	Overall, three of seven samples were toxic. This total was created from two different sediment studies within Fish Harbor. In one study, three of six samples were toxic (BPTCP). In the other, none of one sample was toxic (Bight, 1998) (LARWQCB & CCC, 2004).
<i>Spatial Representation:</i>	Seven sites were sampled throughout LA/LB Fish Harbor.
<i>Temporal Representation:</i>	Samples were collected in 1992, 1997 and 1998.
<i>Data Quality Assessment:</i>	Contaminated Sediment Task Force (2005) and references therein (BPTCP QAPP, Bight 98 QAPP).

Region 4

Water Segment: Los Angeles Harbor - Inner Cabrillo Beach Area

Pollutant: DDT

Decision: Do Not Delist

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

Two lines of evidence are available in the administrative record to assess this pollutant. An OEHHA fish consumption advisory has been established in this water body segment. Under section 4.4 of the Listing Policy any water body segment where a health advisory against consumption of edible resident organisms has been issued shall remain listed on the section 303(d) list, until the advisory has been removed or data shows standards are being met in the water body.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of not removing this water segment-pollutant combination on the section 303(d) list in the Water Quality Limited Segments category.

This conclusion is based on the staff findings that an OEHHA fish consumption advisory has been established for this pollutant and fish tissue samples from nearby areas of the harbor (outer harbor) exceed the fish tissue guideline for human consumption.

Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because an OEHHA fish consumption advisory has been established in this water body segment. Applicable water quality standards or guidelines are exceeded and this pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Sediment

Beneficial Use: CM - Commercial and Sport Fishing (CA)

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.

<i>Evaluation Guideline:</i>	A sediment quality guideline for this pollutant is not available that satisfies the requirements of section 6.1.3 of the Listing Policy.
<i>Data Used to Assess Water Quality:</i>	Eighteen sediment grab samples are available (Anderson et al., 1998).
<i>Spatial Representation:</i>	The 18 samples were collected throughout the Cabrillo Beach area (Anderson et al, 1998).
<i>Temporal Representation:</i>	The samples were collected between 1992 and 1997.
<i>Data Quality Assessment:</i>	Bay Protection and Toxic Cleanup Program.

<i>Line of Evidence</i>	Health Advisories
<i>Beneficial Use</i>	CM - Commercial and Sport Fishing (CA)
<i>Information Used to Assess Water Quality:</i>	A fish consumption advisory has been established for the DDT in the Los Angeles/Long Beach Harbor area. The advisory was established by the Office of Environmental Health Hazard Assessment.

Region 4

Water Segment: Los Angeles Harbor - Inner Cabrillo Beach Area

Pollutant: Polychlorinated biphenyls

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under section 4.1 of the Listing Policy. Under section 4.1 a single line of evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. An OEHHA fish consumption advisory has been established in this water body segment. Under section 4.4 of the Listing Policy any water body segment where a health advisory against consumption of edible resident organisms has been issued shall remain on the section 303(d) list. In this case, there are no current tissue data available for evaluation, however, fish tissue samples from nearby areas of the harbor (outer harbor) exceed the fish tissue guideline for human consumption.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of not removing this water segment-pollutant combination on the section 303(d) list in the Water Quality Limited Segments category.

This conclusion is based on the staff findings that an OEHHA fish consumption advisory has been established for this pollutant and fish tissue samples from nearby areas of the harbor (outer harbor) exceed the fish tissue guideline for human consumption.

Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because OEHHA fish consumption advisory has been established in this water body segment.

Lines of Evidence:

<i>Line of Evidence</i>	Health Advisories
<i>Beneficial Use</i>	CM - Commercial and Sport Fishing (CA)
<i>Information Used to Assess Water Quality:</i>	A fish consumption advisory has been established for the PCBs in the Los Angeles/Long Beach Harbor area. The advisory was established by the Office of Environmental Health Hazard Assessment.
<i>Data Used to Assess Water Quality:</i>	After review of the Bay Protection and Toxic Cleanup Program data, PCBs have been detected in sediments in the Cabrillo Beach area and other surrounding locations (Anderson et al., 1998).

Region 4

Water Segment: Los Angeles River Estuary (Queensway Bay)

Pollutant: DDT

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under sections 4.4 and 4.6 of the Listing Policy. Under section 4.6 two lines of evidence are necessary to assess delisting status.

There is an OEHHA fish consumption advisory in place for the Los Angeles/Long Beach Harbor area. There is no sediment quality guideline available to assess exceedances of DDT in sediment that complies with the requirements of section 6.1.3 of the Listing Policy but sediment toxicity has been observed. Under section 4.4 of the Listing Policy, any water body segment where a health advisory against consumption of edible resident organisms has been removed or the chemical or biological contaminant-specific evaluation guideline for tissue is no longer exceeded shall be removed from the section 303(d) list. In this case, there are no current tissue data available for evaluation, however, fish tissue samples from nearby areas of the harbor (outer harbor) exceed the fish tissue guideline for human consumption.

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

This conclusion is based on the staff findings that, although there are no current tissue data available for evaluation, an OEHHA fish consumption advisory remains in place for this pollutant and fish tissue samples from nearby areas of the harbor (outer harbor) exceed the fish tissue guideline for human consumption. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and -Protecting wildlife corridors. Basin Plan (LARWQCB, 1995): Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.
<i>Evaluation Guideline:</i>	A guideline that meets the requirements of section 6.1.3 of the Listing Policy is not available.
<i>Data Used to Assess Water Quality:</i>	Nine samples ranging in concentration from 16.1 ppb to 75.8 ppb (Anderson et al., 1998).
<i>Spatial Representation:</i>	Samples were collected synoptically with toxicity samples.
<i>Temporal Representation:</i>	Samples taken in 2 different years.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by: -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and -Protecting wildlife corridors. Basin Plan (LARWQCB, 1995): Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.
<i>Evaluation Guideline:</i>	BPTCP reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	Four out of six sediment samples were found to be significantly toxic to amphipods (Anderson et al., 1998).

Spatial Representation: Samples were collected synoptically with sediment samples.
Temporal Representation: Samples taken in 2 different years.
Data Quality Assessment: BPTCP Quality Assurance Project Plan.

Numeric Line of Evidence Population/Community Degradation
Beneficial Use: ES - Estuarine Habitat
Matrix: Sediment
*Water Quality Objective/
 Water Quality Criterion:* Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by:
 -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally,
 -Protecting food supplies for fish and wildlife,
 -Protecting reproductive and nursery areas, and
 -Protecting wildlife corridors.
 Basin Plan (LARWQCB, 1995): Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.
Evaluation Guideline: Evaluation of the benthic data was completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community.
Data Used to Assess Water Quality: The benthic community was classified as transitional (Anderson et al., 1998).
Spatial Representation: Samples were collected synoptically with sediment and toxicity samples.
Temporal Representation: Samples taken in 2 different years.
Data Quality Assessment: BPTCP Quality Assurance Project Plan.

Region 4

Water Segment: Los Angeles/Long Beach Inner Harbor

Pollutant: DDT

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.1, 4.4, 4.5, and 4.11 of the Listing Policy.

Four lines of evidence are available in the administrative record to assess this pollutant. Seven hundred and fourteen (714) sediment samples were taken between 1992 and 2001, DDT was detected in the majority of samples. A sediment quality guideline for DDT is not available that satisfies the conditions of section 6.1.3 of the Listing Policy. An OEHHA fish consumption advisory has been established in this water body segment. There were 463 tissue samples available and none of these exceeded the NAS guidelines (or the OEHHA Screening Value). However, organisms used for these tissue samples are benthic infauna (including worms and bivalves) not typically consumed by humans. These samples are not appropriate to use for determining whether or not DDT is causing a water quality impact. Fish tissue samples from nearby areas of the harbor (outer harbor) still exceed the fish tissue guideline for human consumption. Additionally, sediment toxicity has been observed.

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

This conclusion is based on the staff findings that even though none of the 463 benthic infauna tissue samples exceed the NAS guideline, fish tissue data available from a nearby area in the harbor shows exceedances of the human consumption guideline and an OEHHA fish consumption advisory has been established for this pollutant in this water body. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are being met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA)
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.
<i>Evaluation Guideline:</i>	A sediment quality guideline for this pollutant is not available that satisfies the conditions of section 6.1.3 of the Listing Policy.
<i>Data Used to Assess Water Quality:</i>	Seven hundred and fourteen samples are available. The pollutant is detected in the majority of these samples (Los Angeles RWCB & CC, 2004).
<i>Spatial Representation:</i>	The 714 samples are spread throughout the water body.
<i>Temporal Representation:</i>	The samples were collected between 1992 and 2001.
<i>Data Quality Assessment:</i>	Bay Protection and Toxic Cleanup Program QAPP. Quality assurance for other samples presented in the Contaminated Sediments Task Force Database.

Numeric Line of Evidence	Pollutant-Tissue
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA)
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	Los Angeles RWQCB Basin Plan: Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels which are harmful to aquatic life or human health.
<i>Evaluation Guideline:</i>	1 µg/g Wildlife Protection Criteria (NAS Guidelines).
<i>Data Used to Assess Water Quality:</i>	Out of 463 samples, none exceeded the NAS Guidelines. These are organisms which are not typically consumed by humans, however if they were and were subject to the more restrictive Human Health criteria (0.1 µg/g) none of these samples would exceed (LARWQCB & CCC, 2004).
<i>Spatial Representation:</i>	Samples were collected in the Los Angeles Harbor Main Channel, The East and West Basins, Slip No. 1 and Slip No. 5, Turning Basin, Cerritos Channel, Long Beach Main Channel, SE, W Bain, Peir J, and Breakwater.
<i>Temporal Representation:</i>	Samples range from 10/1991 to 5/2002.

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment

<i>Water Quality Objective/ Water Quality Criterion:</i>	Los Angeles RWQCB Basin Plan: All waters should be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological response in, human, plant, animal, or aquatic life.
<i>Evaluation Guideline:</i>	Samples were considered toxic if (1) there was a significant difference in mean organism response between the sample and the control, and (2) the mean organism response in the test, as a percent of the control, was less than the threshold based on the 90th percentile minimum significant difference value.
<i>Data Used to Assess Water Quality:</i>	Overall, 29 of 82 samples were toxic. This total was created from several different sediment studies within LA/LB Inner Harbor. Twenty-three of 67 samples were toxic (BPTCP). Six of 13 samples were toxic (Bight, 1998). None of two samples were toxic (W-EMAP) (LARWQCB & CCC, 2004).
<i>Spatial Representation:</i>	Numerous (82) sites were sampled through Los Angeles/Long Beach Inner Harbor.
<i>Temporal Representation:</i>	Samples were collected in 1992, 1994, 1996, 1998 and 1999.
<i>Data Quality Assessment:</i>	Contaminated Sediment Task Force (2005) and references therein (BPTCP QAPP, Bight 98 QAPP, EMAP 1999 QAPP).

<i>Line of Evidence</i>	Health Advisories
<i>Beneficial Use</i>	CM - Commercial and Sport Fishing (CA)
<i>Information Used to Assess Water Quality:</i>	A fish consumption advisory has been established for DDT in the Los Angeles/Long Beach Harbor area. The advisory was established by the Office of Environmental Health Hazard Assessment.

Region 4

Water Segment:	Los Angeles/Long Beach Inner Harbor
Pollutant:	Polychlorinated biphenyls
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal on the section 303(d) list under sections 4.1 and 4.4 of the Listing Policy. Under section 4.1 a single line of evidence is necessary to assess listing status.</p> <p>Three lines of evidence are available in the administrative record to assess this pollutant. OEHHA fish consumption advisory has been established in this water body segment. Under section 4.4 of the Listing Policy any water body segment where a health advisory against consumption of edible resident organisms has been issued shall remain on the section 303(d) list, until this advisory has been removed or tissue data shows standards are being met in the water body.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of not removing this water segment-pollutant combination off the section 303(d) list in the Water Quality Limited Segments category.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. An OEHHA fish consumption advisory has been established for this pollutant in this water body. 2. Of the 62 tissue samples available, 60 exceed the OEHHA screening value and this exceeds the frequency in Table 4.1 of the Listing Policy. 3. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed off the section 303(d) list because applicable water quality standards or guidelines are exceeded and this pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Tissue
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA), MA - Marine Habitat
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	Los Angeles RWQCB Basin Plan: Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels which are harmful to aquatic life or human health.
<i>Evaluation Guideline:</i>	OEHHA Screening Value for Total PCBs: 20 µg/kg wet wt. (Brodberg & Pollock, 1999).

Data Used to Assess Water Quality: Overall, 60 of 62 composite samples exceed OEHHA tissue value. This total was created from different sampling stations within Inner Harbor (TSMP, 2002).

Spatial Representation: Numerous State Mussel Watch stations were sampled through LA/LB Inner Harbor.

Temporal Representation: Samples were collected in 1980 to 2000.

Numeric Line of Evidence Pollutant-Sediment

Beneficial Use: CM - Commercial and Sport Fishing (CA), MA - Marine Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.

Evaluation Guideline: A sediment quality guideline of 400 ng/g was used (MacDonald et al., 2000).

Data Used to Assess Water Quality: Of the 626 core and grab sediment samples, 31 exceeded the sediment quality guideline (LARWQCB and CCC, 2004).

Spatial Representation: The 626 samples are spread throughout the water body.

Temporal Representation: The samples were collected between 1992 and 2002.

Data Quality Assessment: Bay Protection and Toxic Cleanup Program QAPP. Quality assurance for other samples presented in the Contaminated Sediments Task Force Database.

Line of Evidence Health Advisories

Beneficial Use CM - Commercial and Sport Fishing (CA), MA - Marine Habitat

Information Used to Assess Water Quality: A fish consumption advisory has been established for the PCBs in the Los Angeles/Long Beach Harbor area. The advisory was established by the Office of Environmental Health Hazard Assessment.

Region 4

Water Segment:	Los Angeles/Long Beach Inner Harbor
Pollutant:	Sediment Toxicity
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal on the section 303(d) list under section 4.6 of the Listing Policy. Under section 4.6, waters may be placed on the 303(d) list for toxicity alone.</p> <p>One line of evidence is available in the administrative record to assess this pollutant. A large number of samples exhibited toxicity.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of not removing this water segment-pollutant combination off the section 303(d) list in the Water Quality Limited Segments category.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 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. Twenty nine of 82 sediment samples exhibited toxicity based on the 90th percentile minimum significant difference value and this exceeds 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.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Los Angeles RWQCB Basin Plan: All waters should be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological response in, human, plant, animal, or aquatic life.
<i>Evaluation Guideline:</i>	Samples were considered toxic if (1) there was a significant difference in mean organism response between the sample and the control, and (2) the mean organism response in the test, as a percent of the control, was

	less than the threshold based on the 90th percentile minimum significant difference value.
<i>Data Used to Assess Water Quality:</i>	Overall, 29 of 82 samples were toxic. This total was created from several different sediment studies within LA/LB Inner Harbor. Twenty-three of 67 samples were toxic (BPTCP). Six of 13 samples were toxic (Bight, 1998). None of two samples were toxic (W-EMAP) (LARWQCB & CCC, 2004).
<i>Spatial Representation:</i>	Numerous (82) sites were sampled through Los Angeles/Long Beach Inner Harbor.
<i>Temporal Representation:</i>	Samples were collected in 1992, 1994, 1996, 1998 and 1999.
<i>Data Quality Assessment:</i>	Contaminated Sediment Task Force (2005) and references therein (BPTCP QAPP, Bight 98 QAPP, EMAP 1999 QAPP).

Region 4

Water Segment:	Los Angeles/Long Beach Outer Harbor (inside breakwater)
Pollutant:	DDT
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.1, 4.4, 4.5, and 4.11 of the Listing Policy.</p> <p>Four lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6 the site has significant sediment toxicity but it is unknown if the pollutant is not likely to cause or contribute to the toxic effect because no sediment guideline is available. An OEHHA advisory has been issued for the location and tissue samples show levels exceeding tissue guidelines.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The tissue quality guideline used complies with the requirements of section 6.1.3 of the Policy. 2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy. 3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy. 4. Four of 13 samples exceeded the tissue guideline and a health advisory has been issued. 5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.
Lines of Evidence:	

Numeric Line of Evidence	Pollutant-Tissue
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA), MA - Marine Habitat
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels which are harmful to aquatic life or human health.

<i>Evaluation Guideline:</i>	An OEHHA screening value of 100 µg/kg was used (Brodberg and Pollock, 1999).
<i>Data Used to Assess Water Quality:</i>	Of the 13 fish tissue samples collected, four exceeded the OEHHA screening value (TSMP, 2002).
<i>Spatial Representation:</i>	The 13 samples were spread throughout the Outer Harbor.
<i>Temporal Representation:</i>	The samples were collected in 1997 and 1998.
<i>Data Quality Assessment:</i>	Bay Protection and Toxic Cleanup Program QAPP.

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA), MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.
<i>Evaluation Guideline:</i>	A sediment quality guideline is not available for this pollutant that satisfies the requirements of section 6.1.3 of the Listing Policy.
<i>Data Used to Assess Water Quality:</i>	A total of 82 samples are available (LARWQCB and CCC, 2004).
<i>Spatial Representation:</i>	The 82 samples are spread throughout the Outer Harbor.
<i>Temporal Representation:</i>	The samples were collected between 1992 and 2001.
<i>Data Quality Assessment:</i>	Bay Protection and Toxic Cleanup Program QAPP. Quality assurance for other samples presented in the Contaminated Sediments Task Force Database.

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Los Angeles RWQCB Basin Plan: All waters should be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological response in, human, plant, animal, or aquatic life.
<i>Evaluation Guideline:</i>	Samples were considered toxic if (1) there was a significant difference in mean organism response between the sample and the control, and (2) the mean organism response in the test, as a percent of the control, was less than the threshold based on the 90th percentile minimum significant difference value.
<i>Data Used to Assess Water Quality:</i>	Overall, nine of 37 samples exhibited toxicity. This total was created from several different sediment studies within the Outer Harbor. Six out of 17 samples were toxic (BPTCP). Three out of 18 samples were toxic (Bight, 1998). None out of two samples were toxic (W-EMAP) (LARWQCB & CCC, 2004).

Spatial Representation: Thirty-seven sites were sampled through Outer Harbor.
Temporal Representation: Samples were collected in 1992 - 1994 and 1996 - 1999.
Data Quality Assessment: Contaminated Sediment Task Force (2005) and references therein (BPTCP QAPP, Bight 1998 QAPP, EMAP 1999 QAPP).

Line of Evidence Health Advisories
Beneficial Use CM - Commercial and Sport Fishing (CA), MA - Marine Habitat
Information Used to Assess Water Quality: A fish consumption advisory has been established for the DDT in the Los Angeles/Long Beach Harbor area. The advisory was established by the Office of Environmental Health Hazard Assessment.

Region 4

Water Segment:	Los Angeles/Long Beach Outer Harbor (inside breakwater)
Pollutant:	Polychlorinated biphenyls
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for delisting under sections 4.4 of the Listing Policy. Under section 4.4 two lines of evidence are necessary to assess listing status.</p> <p>Two lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.4, a health advisory has been issued for this water segment and mussel watch data exceed the tissue guideline.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy. 2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy. 3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy. 4. Thrity-three of 34 samples exceed the OEHHA screening value and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy. 5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Tissue
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA)
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels which are harmful to aquatic life or human health.
<i>Evaluation Guideline:</i>	OEHHA Total PCBs Screening Value: 20 µg/kg (Brodberg and Pollock, 1999).

Data Used to Assess Water Quality: There were 33 of 34 mussel samples which exceeded. This total was created from different sampling stations within Outer Harbor (TSMP, 2002).

Spatial Representation: Numerous stations were sampled through LA/LB Outer Harbor.

Temporal Representation: Samples were collected from 1979 to 2000.

Data Quality Assessment: California State Mussel Watch Program.

Line of Evidence Health Advisories

Beneficial Use CM - Commercial and Sport Fishing (CA)

Information Used to Assess Water Quality: A fish consumption advisory has been established for the PCBs in the Los Angeles/Long Beach Harbor area. The advisory was established by the Office of Environmental Health Hazard Assessment.

Region 4

Water Segment:	San Gabriel River Reach 2 (Firestone to Whittier Narrows Dam)
Pollutant:	Lead
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.1 of the Listing Policy. Under section 4.1 a single line of evidence is necessary to assess listing status.</p> <p>One line of evidence is available in the administrative record to assess this pollutant. Five samples exceeded the CTR dissolved lead criteria continuous concentration the water quality objective.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 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. Five of 58 samples exceeded the CTR criteria and this exceeds 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 met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because applicable water quality standards for the pollutant are exceeded.
Lines of Evidence:	

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	WA - Warm Freshwater Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	CTR dissolved lead criterion for continuous concentration (CCC) in water for the protection of aquatic life is expressed as a function of the total hardness of the water body. The aquatic life criteria will vary depending on total hardness reported at the sampling site. The CCC for dissolved lead is the highest concentration to which aquatic life can be exposed for an extended period of time (four days) without deleterious effects. This criterion is linked and applicable for the protection of aquatic life Beneficial Uses.

Data Used to Assess Water Quality: Numeric data generated from 58 samples taken from 11/10/97 to 1/7/05 at one to two-week sampling intervals. Five samples exceeded the dissolved lead continuous criterion concentration (CCC) (LARWQCB, 2006).

Spatial Representation: Site S14.

Temporal Representation: Samples were collected between 11/10/97 and 1/7/05.

Data Quality Assessment: San Gabriel River Metals TMDL monitoring.

Region 4

Water Segment:	San Pedro Bay Near/Off Shore Zones
Pollutant:	Sediment Toxicity
Decision:	Do Not Delist
Weight of Evidence:	<p>Toxicity is being considered for removal from the list under section 4.6 of the Listing Policy. Under section 4.6 a single line of evidence is necessary to assess listing status for toxicity.</p> <p>One line of evidence is available in the administrative record to assess this pollutant. Based on the available data, the site does have significant toxicity.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none"> 1. The sediment quality guideline used complies, with the requirements of section 6.1.3 of the Policy. 2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy. 3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy. 4. Thirteen of the 50 samples were toxic and these exceed the allowable frequency listed in Table 4.1 of the Listing Policy. 5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and toxicity contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Los Angeles RWQCB Basin Plan: All waters should be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological response in, human, plant, animal, or aquatic life.
<i>Evaluation Guideline:</i>	Samples were considered toxic if (1) there was a significant difference in mean organism response between the sample and the control, and (2)

the mean organism response in the test, as a percent of the control, was less than the threshold based on the 90th percentile minimum significant difference value.

Data Used to Assess Water Quality:

Overall, 13 of 50 samples were toxic. This total was created from several different sediment studies within San Pedro Bay. Eleven of 33 samples were toxic (BPTCP). Two of 14 samples were toxic (Bight, 1998). None of three samples were toxic (W-EMAP) (LARWQCB & CCC, 2004).

Spatial Representation:

Fifty sites were sampled throughout San Pedro Bay.

Temporal Representation:

Samples were collected in 1992, 1994, 1996, 1998 and 1999.

Data Quality Assessment:

Contaminated Sediment Task Force (2005) and references therein (BPTCP QAPP, Bight 98 QAPP, EMAP 1999 QAPP).

Region 4

Water Segment: Tujunga Wash (LA River to Hansen Dam)

Pollutant: Trash

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for listing under section 2.2 of the Listing Policy. Under this section of the Policy, a minimum of one line of evidence is needed to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. Based on the applicable factor, a TMDL was developed and approved by USEPA and an approved implementation plan was expected to result in attainment of the standard. However, on July 19, 2006 the State Board rescinded approval of the TMDL and remanded it to the Regional Board.

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

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should remain on the section 303(d) list because applicable water quality standards for the pollutant are exceeded.

Lines of Evidence:

Line of Evidence Remedial Program in Place

Beneficial Use R2 - Non-Contact Recreation

Data Used to Assess Water Quality: The Los Angeles River Trash TMDL was completed (USEPA, 2002). However, on July 19, 2006 the State Board rescinded approval of the TMDL and remanded it to the Regional Board. The Court approved all elements of the TMDL, but required additional consideration under CEQA.

Original Fact Sheets

Fact Sheets Not Changed
from September 2005 Version

Region 4

Water Segment: Avalon Beach

Pollutant: Indicator Bacteria

Decision: Do Not Delist

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

Five lines of evidence are available in the administrative record from three sampling stations to assess this pollutant. A large number of samples exceed the bacteriological standards for waters adjacent to public beaches and public water-contact sports areas.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of not 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. Sixty-five out of 215 samples exceeded the bacteriological standards for waters adjacent to public beaches and public water-contact sports areas and this exceeds the allowable frequency 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 met.

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: R1 - Water Contact Recreation

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* 17 CCR 7958 (in part): The minimum protective bacteriological standards for waters adjacent to public beaches and public water-contact sports areas shall be as follows:
(1) Based on a single sample, the density of bacteria in water from each sampling station at a public beach or public water contact sports area shall not exceed:
(A) 1,000 total coliform bacteria per 100 milliliters, if the ratio of fecal/total

	coliform bacteria exceeds 0.1; or (B) 10,000 total coliform bacteria per 100 milliliters; or (C) 400 fecal coliform bacteria per 100 milliliters; or (D) 104 enterococcus bacteria per 100 milliliters.
<i>Data Used to Assess Water Quality:</i>	Forty-two samples, 7 exceeding (SWRCB, 2003).
<i>Spatial Representation:</i>	Data collected between BB restaurant and Tuna Club. 1 station: DHS (120) which is the same as DHS (126)99. This station represents the beach 50 yards on either side of the sampling point.
<i>Temporal Representation:</i>	Data collected in 1999, 2000, and 2001.
<i>Data Quality Assessment:</i>	County Health Department.

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	R1 - Water Contact Recreation
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	17 CCR 7958 (in part): The minimum protective bacteriological standards for waters adjacent to public beaches and public water-contact sports areas shall be as follows: (1) Based on a single sample, the density of bacteria in water from each sampling station at a public beach or public water contact sports area shall not exceed: (A) 1,000 total coliform bacteria per 100 milliliters, if the ratio of fecal/total coliform bacteria exceeds 0.1; or (B) 10,000 total coliform bacteria per 100 milliliters; or (C) 400 fecal coliform bacteria per 100 milliliters; or (D) 104 enterococcus bacteria per 100 milliliters.
<i>Data Used to Assess Water Quality:</i>	Forty-three samples, 14 exceeding (SWRCB, 2003).
<i>Spatial Representation:</i>	Data collected between Pier and BB restaurant (1/3). 1 station: DHS118. This station represents the beach 50 yards on either side of the sampling point.
<i>Temporal Representation:</i>	Data collected in 1999, 2000, and 2001.
<i>Data Quality Assessment:</i>	County Health Department.

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	R1 - Water Contact Recreation
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	17 CCR 7958 (in part): The minimum protective bacteriological standards for waters adjacent to public beaches and public water-contact sports areas shall be as follows: (1) Based on a single sample, the density of bacteria in water from each sampling station at a public beach or public water contact sports area shall not exceed: (A) 1,000 total coliform bacteria per 100 milliliters, if the ratio of fecal/total

coliform bacteria exceeds 0.1; or
(B) 10,000 total coliform bacteria per 100 milliliters; or
(C) 400 fecal coliform bacteria per 100 milliliters; or
(D) 104 enterococcus bacteria per 100 milliliters.

Data Used to Assess Water Quality:

Forty-three samples, 10 exceeding (SWRCB, 2003).

Spatial Representation:

Data collected between Pier and BB restaurant (2/3). 1 station: DHS(119). This station represents the beach 50 yards on either side of the sampling point.

Temporal Representation:

Data collected in 1999, 2000, and 2001.

Data Quality Assessment:

County Health Department.

Numeric Line of Evidence

Pollutant-Water

Beneficial Use:

R1 - Water Contact Recreation

Matrix:

Water

*Water Quality Objective/
Water Quality Criterion:*

17 CCR 7958 (in part): The minimum protective bacteriological standards for waters adjacent to public beaches and public water-contact sports areas shall be as follows:
(1) Based on a single sample, the density of bacteria in water from each sampling station at a public beach or public water contact sports area shall not exceed:
(A) 1,000 total coliform bacteria per 100 milliliters, if the ratio of fecal/total coliform bacteria exceeds 0.1; or
(B) 10,000 total coliform bacteria per 100 milliliters; or
(C) 400 fecal coliform bacteria per 100 milliliters; or
(D) 104 enterococcus bacteria per 100 milliliters.

Data Used to Assess Water Quality:

Seventeen samples exceeding standards out of 44 samples (SWRCB, 2003).

Spatial Representation:

Data collected between storm drain and Pier (1/3). 1 station. This station represents the beach 50 yards on either side of the sampling point.

Temporal Representation:

Data collected in 1999, 2000, and 2001.

Data Quality Assessment:

County Health Department.

Numeric Line of Evidence

Pollutant-Water

Beneficial Use:

R1 - Water Contact Recreation

Matrix:

Water

*Water Quality Objective/
Water Quality Criterion:*

17 CCR 7958 (in part): The minimum protective bacteriological standards for waters adjacent to public beaches and public water-contact sports areas shall be as follows:
(1) Based on a single sample, the density of bacteria in water from each sampling station at a public beach or public water contact sports area shall not exceed:
(A) 1,000 total coliform bacteria per 100 milliliters, if the ratio of fecal/total coliform bacteria exceeds 0.1; or

- (B) 10,000 total coliform bacteria per 100 milliliters; or
- (C) 400 fecal coliform bacteria per 100 milliliters; or
- (D) 104 enterococcus bacteria per 100 milliliters.

Data Used to Assess Water Quality:

Forty-three samples, 17 samples exceeding (SWRCB, 2003).

Spatial Representation:

Data collected between storm drain and Pier (2/3). 1 station: DHS(116). This station represents the beach 50 yards on either side of the sampling point.

Temporal Representation:

Data collected in 1999, 2000, and 2001.

Data Quality Assessment:

County Health Department.

Region 4

Water Segment:	Calleguas Creek Reach 2 (estuary to Potrero Rd- was Calleguas Creek Reaches 1 and 2 on 1998 303d list)
Pollutant:	Fecal Coliform
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.3 of the Listing Policy. Under section 4.3 a single line of evidence is necessary to assess delisting status. One line of evidence is available in the administrative record to assess this pollutant. A large number of samples exceed the water quality objective.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.2. Twenty-four of 34 samples exceeded the Fecal Coliform water quality objective and this exceeds the allowable frequency listed in Table 4.2 of the Listing Policy.3. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	R1 - Water Contact Recreation
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: In waters designated for water contact recreation (REC-1), the fecal coliform concentration shall not exceed a log mean of 200/100 ml (based on a minimum of not less than four samples for any 30-day period), nor shall more than 10 percent of total samples during any 30-day period exceed 400/100 ml.
<i>Data Used to Assess Water Quality:</i>	Thirty-four bacteria samples, geomean of 934 exceeds standard, 24 samples exceeding at 400/100ml standard (SWRCB, 2003).
<i>Spatial Representation:</i>	Three sites.
<i>Temporal Representation:</i>	Summer, fall, winter, spring.
<i>Data Quality Assessment:</i>	Calleguas Creek Characterization Study.

Region 4

Water Segment:	Calleguas Creek Reach 4 (was Revolon Slough Main Branch: Mugu Lagoon to Central Avenue on 1998 303d list)
Pollutant:	Fecal Coliform
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.3 of the Listing Policy. Under section 4.3 a single line of evidence is necessary to assess delisting status. One line of evidence is available in the administrative record to assess this pollutant. Six samples exceed the fecal coliform water quality objective.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1.It is unknown whether 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.Six of 12 samples exceeded the fecal coliform water quality objective but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	R1 - Water Contact Recreation
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: In waters designated for water contact recreation (REC-1), the fecal coliform concentration shall not exceed a log mean of 200/100 ml (based on a minimum of not less than four samples for any 30-day period), nor shall more than 10 percent of total samples during any 30-day period exceed 400/100 ml.
<i>Data Used to Assess Water Quality:</i>	Twelve bacteria samples, 6 exceeding 400/100 ml standard (SWRCB, 2003).
<i>Spatial Representation:</i>	One site.
<i>Temporal Representation:</i>	Summer, fall, winter, spring.
<i>Data Quality Assessment:</i>	Calleguas Creek Characterization Study

Region 4

Water Segment: Calleguas Creek Reach 6 (was Arroyo Las Posas Reaches 1 and 2 on 1998 303d list)

Pollutant: Fecal Coliform

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.3 of the Listing Policy. Under section 4.3 a single line of evidence is necessary to assess delisting status. One line of evidence is available in the administrative record to assess this pollutant. Four samples exceed the Fecal Coliform water quality objective.

Based on the readily available data and information, the weight of evidence indicates there is sufficient justification against 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 quantity requirements of section 6.1.5 of the Policy.
2. Four of 12 samples exceeded the fecal coliform water quality objective but there is insufficient samples taken to determine whether the water body segment can be removed from the 303(d) list in accordance with the allowable frequency listed in Table 4.2 of the Listing Policy.
3. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	R1 - Water Contact Recreation
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: In waters designated for water contact recreation (REC-1), the fecal coliform concentration shall not exceed a log mean of 200/100 ml (based on a minimum of not less than four samples for any 30-day period), nor shall more than 10 percent of total samples during any 30-day period exceed 400/100 ml.
<i>Data Used to Assess Water Quality:</i>	Twelve bacteria samples, 4 samples exceeding. Geomean of 557 exceeds 200/100 ml standard (SWRCB, 2003).
<i>Spatial Representation:</i>	One site.
<i>Temporal Representation:</i>	Summer, fall, winter, spring.
<i>Data Quality Assessment:</i>	Calleguas Creek Characterization Study

Region 4

Water Segment:	Calleguas Creek Reach 7 (was Arroyo Simi Reaches 1 and 2 on 1998 303d list)
Pollutant:	Fecal Coliform
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.3 of the Listing Policy. Under section 4.3 a single line of evidence is necessary to assess delisting status. One line of evidence is available in the administrative record to assess this pollutant.</p> <p>Based on the readily available data and information, the weight of evidence indicates there is sufficient justification against removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.2. Seventeen of 24 samples exceeded the fecal coliform water quality objective and there is insufficient samples taken to determine whether the water body segment can be removed from the 303(d) list in accordance with the allowable frequency listed in Table 4.2 of the Listing Policy.3. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.
SWRCB Staff Recommendation:	<p>After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.</p>

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	R1 - Water Contact Recreation
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: In waters designated for water contact recreation (REC-1), the fecal coliform concentration shall not exceed a log mean of 200/100 ml (based on a minimum of not less than four samples for any 30-day period), nor shall more than 10 percent of total samples during any 30-day period exceed 400/100 ml.
<i>Data Used to Assess Water Quality:</i>	Twenty-four bacteria samples, 17 samples exceeding. Geomean of 909 exceed 200/100 ml standard (SWRCB, 2003).
<i>Spatial Representation:</i>	Two sites.
<i>Temporal Representation:</i>	Summer, fall, winter, spring.
<i>Data Quality Assessment:</i>	Calleguas Creek Characterization Study

Region 4

Water Segment: Calleguas Creek Reach 9A (was lower part of Conejo Creek Reach 1 on 1998 303d list)

Pollutant: Fecal Coliform

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.3 of the Listing Policy. Under section 4.3 a single line of evidence is necessary to assess listing status. One line of evidence is available in the administrative record to assess this pollutant. Five samples exceed the water quality objective but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.

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

This conclusion is based on the staff findings that:

5.It is unknown whether the data used satisfies the data quality requirements of section 6.1.4 of the Policy.

6.The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.

7.Five of 12 samples exceeded the fecal coliform water quality objective. At least 28 samples are needed before a pollutant can be considered for removal from the list using the frequencies presented in Table 4.1 of the Listing Policy.

8.Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	R1 - Water Contact Recreation
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: In waters designated for water contact recreation (REC-1), the fecal coliform concentration shall not exceed a log mean of 200/100 ml (based on a minimum of not less than four samples for any 30-day period), nor shall more than 10 percent of total samples during any 30-day period exceed 400/100 ml.
<i>Data Used to Assess Water Quality:</i>	Twelve bacteria samples, 5 samples exceeding 400/100 ml standard. Geomean of 206 exceeds 200/100 ml standard (SWRCB, 2003).
<i>Spatial Representation:</i>	One site (small reach).
<i>Temporal Representation:</i>	Summer, fall, winter, spring.
<i>Data Quality Assessment:</i>	Calleguas Creek Characterization Study

Region 4

Water Segment:	Calleguas Creek Reach 9B (was part of Conejo Creek Reaches 1 and 2 on 1998 303d list)
Pollutant:	Fecal Coliform
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.2 of the Listing Policy. Under section 4.2 a single line of evidence is necessary to assess listing status. One line of evidence is available in the administrative record to assess this pollutant. Three samples exceed the fecal coliform water quality objective but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.2. Three of 12 samples exceeded the fecal coliform water quality objective. At least 26 samples are needed before a pollutant can be considered for removal from the list using the frequencies presented in Table 4.2 of the Listing Policy.3. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.
SWRCB Staff Recommendation:	<p>After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.</p>

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	R1 - Water Contact Recreation
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: In waters designated for water contact recreation (REC-1), the fecal coliform concentration shall not exceed a log mean of 200/100 ml (based on a minimum of not less than four samples for any 30-day period), nor shall more than 10 percent of total samples during any 30-day period exceed 400/100 ml.
<i>Data Used to Assess Water Quality:</i>	Twelve bacteria samples, 3 samples exceeding WQO. Geomean of 243 exceeds 200/100 ml (SWRCB, 2003).
<i>Spatial Representation:</i>	One site.
<i>Temporal Representation:</i>	All seasons during 1998-1999.
<i>Data Quality Assessment:</i>	Calleguas Creek Characterization Study

Region 4

Water Segment: Calleguas Creek Reach 10 (Conejo Creek (Hill Canyon)-was part of Conejo Crk Reaches 2 & 3, and lower Conejo Crk/Arroyo Conejo N Fk on 1998 303d list)

Pollutant: Fecal Coliform

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.2 of the Listing Policy. Under section 4.2 a single line of evidence is necessary to assess listing status. One line of evidence is available in the administrative record to assess this pollutant. Eleven samples exceed the water quality objective but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of 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 quantity requirements of section 6.1.5 of the Policy.
2. Eleven of 24 samples exceeded the fecal coliform water quality objective. At least 26 samples are needed before a pollutant can be considered for removal from the list using the frequencies presented in Table 4.2 of the Listing Policy.
3. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	R1 - Water Contact Recreation
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: In waters designated for water contact recreation (REC-1), the fecal coliform concentration shall not exceed a log mean of 200/100 ml (based on a minimum of not less than four samples for any 30-day period), nor shall more than 10 percent of total samples during any 30-day period exceed 400/100 ml.
<i>Data Used to Assess Water Quality:</i>	Twenty-four bacteria samples, 11 samples exceeding the 400/100 ml standard. Geomean of 431 exceeds 200/100 ml standard (SWRCB, 2003).
<i>Spatial Representation:</i>	Two sites.
<i>Temporal Representation:</i>	Summer, fall, winter, spring.
<i>Data Quality Assessment:</i>	Calleguas Creek Characterization Study

Region 4

Water Segment:	Calleguas Creek Reach 11 (Arroyo Santa Rosa, was part of Conejo Creek Reach 3 on 1998 303d list)
Pollutant:	Fecal Coliform
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.1 of the Listing Policy. Under section 4.1 a single line of evidence is necessary to assess listing status. One line of evidence is available in the administrative record to assess this pollutant. Six samples exceed the water quality objective but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1.It is unknown whether 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.Six of 12 samples exceeded the fecal coliform water quality objective. At least 28 samples are needed before a pollutant can be considered for removal from the list using the frequencies presented 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 met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	R1 - Water Contact Recreation
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: In waters designated for water contact recreation (REC-1), the fecal coliform concentration shall not exceed a log mean of 200/100 ml (based on a minimum of not less than four samples for any 30-day period), nor shall more than 10 percent of total samples during any 30-day period exceed 400/100 ml.
<i>Data Used to Assess Water Quality:</i>	Twelve water samples with 6 samples exceeding the 400/100 ml standard. Geomean of 393 exceeds 200/100 ml (SWRCB, 2003).
<i>Spatial Representation:</i>	One site.
<i>Temporal Representation:</i>	Summer, fall, winter, spring.
<i>Data Quality Assessment:</i>	Calleguas Creek Characterization Study

Region 4

Water Segment: Calleguas Creek Reach 13 (Conejo Creek South Fork, was Conejo Cr Reach 4 and part of Reach 3 on 1998 303d list)

Pollutant: Chloride

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.1 of the Listing Policy. Under section 4.1 a single line of evidence is necessary to assess listing status. One line of evidence is available in the administrative record to assess this pollutant. None of the samples exceed the water quality objective but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of 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 quantity requirements of section 6.1.5 of the Policy.
2. Seventeen of 19 samples exceeded the water quality objective. At least 28 samples are needed before a pollutant can be considered for removal from the list using the frequencies presented in Table 4.1 of the Listing Policy.
3. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	AG - Agricultural Supply
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan WQO: Chloride 1.5 mg/L.
<i>Data Used to Assess Water Quality:</i>	Nineteen water samples, 17 samples exceeding (SWRCB, 2003).
<i>Spatial Representation:</i>	Two sites.
<i>Temporal Representation:</i>	Summer, fall, winter, spring.
<i>Data Quality Assessment:</i>	NPDES reports.

Region 4

Water Segment: Canada Larga (Ventura River Watershed)

Pollutant: Fecal Coliform

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.1 of the Listing Policy. Under section 4.1 a single line of evidence is necessary to assess listing status. One line of evidence is available in the administrative record to assess this pollutant. One sample exceed the water quality objective but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.

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

This conclusion is based on the staff findings that:

- 1.It is unknown whether the data used satisfies the data quality requirements of section 6.1.4 of the Policy.
- 2.It is unknown whether the data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
- 3.One of 9 samples exceeded the water quality objective. At least 28 samples are needed before a pollutant can be considered for removal from the list using the frequencies presented 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	R1 - Water Contact Recreation
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: In waters designated for water contact recreation (REC-1), the fecal coliform concentration shall not exceed a log mean of 200/100 ml (based on a minimum of not less than four samples for any 30-day period), nor shall more than 10 percent of total samples during any 30-day period exceed 400/100 ml.
<i>Data Used to Assess Water Quality:</i>	One of 9 samples exceeded (SWRCB, 2003).
<i>Spatial Representation:</i>	Unknown.
<i>Temporal Representation:</i>	Different seasons and years.
<i>Data Quality Assessment:</i>	Unknown.

Region 4

Water Segment: Dominguez Channel (lined portion above Vermont Ave)

Pollutant: Copper

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.1 of the Listing Policy. Under section 4.1 a single line of evidence is necessary to assess listing status. Three lines of evidence are available in the administrative record to assess this pollutant.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of not removing the S28 segment located at Dominguez Channel and Artesia Blvd in the City of Torrance on the section 303(d) list in the Water Quality Limited Segments category.

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. Sixteen of the 19 samples taken between 2000-2003 exceed the CTR Criteria for protection of aquatic life. Although 19 samples is not enough to determine with the confidence and power of the Listing Policy, a minimum of 188 samples would be needed in order for 16 exceedances to result in a delisting.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA - Warm Freshwater Habitat, WI - Wildlife Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	CTR dissolved copper criteria for continuous concentration (CCC) and maximum concentration (CMC) in water for the protection of aquatic life are expressed as a function of the total hardness of the water body. The aquatic life criteria will vary depending of total hardness reported at the sampling site. The CCC for dissolved copper is the highest concentration to which aquatic life can be exposed for an extended period of time (e.g., four days) without deleterious effects. The CMC for dissolved copper is the highest concentration to which aquatic life can be exposed for a short period of time (e.g., one hour) without deleterious effects. These criteria are linked and applicable for the protection of aquatic life beneficial uses. Calculation of the criteria is based on ambient hardness at the time of sampling.
<i>Data Used to Assess Water Quality:</i>	Twelve out of 12 samples exceed both the CCC and CMC (LACDWP, 2003a).
<i>Spatial Representation:</i>	Samples were taken at the Dominguez Channel Monitoring Station (S23) which is located within the Dominguez Channel/Los Angeles Harbor watershed in Lennox, near Los Angeles International Airport (LAX). The monitoring station is near the intersection of 116th Street and Isis Avenue. The overall watershed land use is predominantly transportation, and includes areas of LAX and Interstate 105.
<i>Temporal Representation:</i>	Samples were taken in October 2000, and in January through April 2001.
<i>Environmental Conditions:</i>	According to the County of Los Angeles, Department of Public Works, Stormwater Monitoring Reports, 2000-2001 Monitoring Report samples were taken during storm events, the amount of rainfall was not noted.
<i>Data Quality Assessment:</i>	Evaluation of Analytes and QA/QC Specifications for Monitoring Program (Woodward-Clyde, 1996) Los Angeles County Department of Public Works.

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA - Warm Freshwater Habitat, WI - Wildlife Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	CTR dissolved copper criteria for continuous concentration (CCC) and maximum concentration (CMC) in water for the protection of aquatic life are expressed as a function of the total hardness of the water body. The aquatic life criteria will vary depending of total hardness reported at the sampling site. The CCC for dissolved copper is the highest concentration

to which aquatic life can be exposed for an extended period of time (e.g., four days) without deleterious effects. The CMC for dissolved copper is the highest concentration to which aquatic life can be exposed for a short period of time (e.g., one hour) without deleterious effects. These criteria are linked and applicable for the protection of aquatic life beneficial uses.

Data Used to Assess Water Quality:

Four out of 6 samples exceeded both the CCC and CMC (LACDWP, 2003a).

Spatial Representation:

Samples were taken at the Dominguez Channel Monitoring Station (S28) which is located at Dominguez Channel and Artesia Boulevard in the City of Torrance. At this location, which was chosen to avoid tidal influence, the upstream tributary area is 33 square miles. The portion of the river where the monitoring site is located is a concrete-lined rectangular channel.

Temporal Representation:

Samples were taken October through December 2002, and February through April 2003. The positive quantification limit (PQL) of the sample taken on 3/15/03 was higher than the CCC criteria, however sample concentration results was even greater.

Environmental Conditions:

According to the County of Los Angeles, Department of Public Works, Stormwater Monitoring Reports, 2002-2003 Monitoring Report samples were taken during storm events, the amount of rainfall was not noted.

Data Quality Assessment:

Evaluation of Analytes and QA/QC Specifications for Monitoring Program (Woodward-Clyde, 1996) Los Angeles County Department of Public Works.

Numeric Line of Evidence

Pollutant-Water

Beneficial Use:

MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix:

Water

*Water Quality Objective/
Water Quality Criterion:*

CTR dissolved copper criteria for continuous concentration (CCC) and maximum concentration (CMC) in water for the protection of aquatic life are expressed as a function of the total hardness of the water body. The aquatic life criteria will vary depending of total hardness reported at the sampling site. The CCC for dissolved copper is the highest concentration to which aquatic life can be exposed for an extended period of time (e.g., four days) without deleterious effects. The CMC for dissolved copper is the highest concentration to which aquatic life can be exposed for a short period of time (e.g., one hour) without deleterious effects. These criteria are linked and applicable for the protection of aquatic life beneficial uses.

Data Used to Assess Water Quality:

The single sample taken exceeded both the CCC and CMC (LACDWP, 2003a).

Spatial Representation:

Samples were taken at the Dominguez Channel Monitoring Station (S28) which is located at Dominguez Channel and Artesia Boulevard in the City of Torrance. At this location, which was chosen to avoid tidal influence, the upstream tributary area is 33 square miles. The portion of the river where the monitoring site is located is a concrete-lined rectangular channel.

Temporal Representation: The sample was taken in January 2002.

Environmental Conditions: According to the County of Los Angeles, Department of Public Works, Stormwater Monitoring Reports, 2001-2002 Monitoring Report samples were taken during storm events, the amount of rainfall was not noted.

Data Quality Assessment: Evaluation of Analytes and QA/QC Specifications for Monitoring Program (Woodward-Clyde, 1996) Los Angeles County Department of Public Works.

Region 4

Water Segment: El Dorado Lakes

Pollutant: Mercury

Decision: Do Not Delist

Weight of Evidence: Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Two of the 2 samples exceeded the water quality objectives but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Tissue
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA)
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	Los Angeles RWQCB Basin Plan: Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels which are harmful to aquatic life or human health.
<i>Evaluation Guideline:</i>	OEHHA Screening Value of 0.3 µg/g for mercury.
<i>Data Used to Assess Water Quality:</i>	Two out of 2 samples exceeded. Two filet composite samples of largemouth bass were collected. Bass were collected in 1992 and 1998. Both samples exceeded the guideline (TSMP, 2002).
<i>Spatial Representation:</i>	One station located in northern most lake in El Dorado Park.
<i>Temporal Representation:</i>	Samples were collected in 1992 and 1998.
<i>Data Quality Assessment:</i>	Toxic Substances Monitoring Program 1992-93 Data Report. Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 1996-2000. Department of Fish and Game

Region 4

Water Segment:	Hobie Beach (Channel Islands Harbor)
Pollutant:	Indicator Bacteria
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.3 of the Listing Policy. Under section 4.2 a single line of evidence is necessary to assess delisting status.</p> <p>One line of evidence from data collected in 1999, 2000, and 2001 is available in the administrative record to assess this pollutant. This data set was probably used to place the water body segment on the 2002 303(d) list originally. A large number of samples exceed the water quality objective.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">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. Forty-nine of 97 samples exceeded the 17 CCR bacteriological standard for water adjacent to public beaches and public water-contact sports areas and this exceeds the allowable frequency listed in Table 4.2 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 met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	R1 - Water Contact Recreation
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	<p>17 CCR 7958 (in part): The minimum protective bacteriological standards for waters adjacent to public beaches and public water-contact sports areas shall be as follows:</p> <p>(1) Based on a single sample, the density of bacteria in water from each sampling station at a public beach or public water contact sports area shall not exceed:</p>

- (A) 1,000 total coliform bacteria per 100 milliliters, if the ratio of fecal/total coliform bacteria exceeds 0.1; or
- (B) 10,000 total coliform bacteria per 100 milliliters; or
- (C) 400 fecal coliform bacteria per 100 milliliters; or
- (D) 104 enterococcus bacteria per 100 milliliters.

<i>Data Used to Assess Water Quality:</i>	Forty-nine samples exceeding standards out of 97 samples (SWRCB, 2003).
<i>Spatial Representation:</i>	One station: V(36000). This station represents the beach 50 yards on either side of the sampling point.
<i>Temporal Representation:</i>	Data collected in 1999, 2000, and 2001.
<i>Data Quality Assessment:</i>	County Health Department

Region 4

Water Segment: Hopper Creek

Pollutant: Sulfates

Decision: Do Not Delist

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

One line of evidence is available in the administrative record to assess this pollutant. This data set was probably used to place this water body-combination on the 2002 303(d) list originally. A large number of samples exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. Eleven of 12 samples exceeded the sulfate 600 mg/L water quality objective but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	AG - Agricultural Supply
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan WQO: 600 mg/L.
<i>Data Used to Assess Water Quality:</i>	Twelve water samples, 11 samples exceeding. (SWRCB, 2003).
<i>Spatial Representation:</i>	Limited. Hwy 126
<i>Temporal Representation:</i>	Quarterly sampling events, 2002-2003.
<i>Data Quality Assessment:</i>	United Water Conservation District

Region 4

Water Segment: Hopper Creek

Pollutant: Total Dissolved Solids

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.2 of the Listing Policy. Under section 4.2 a single line of evidence is necessary to assess delisting status.

One line of evidence is available in the administrative record to assess this pollutant. This data set was probably used to place this water body - pollutant combination on the 2002 303(d) list originally. A large number of samples exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. Ten of 11 samples exceeded the total dissolved solids of 1,300 mg/L basin plan water quality objective but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

**SWRCB Staff
Recommendation:**

After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	AG - Agricultural Supply
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan WQO: 1,300 mg/L.
<i>Data Used to Assess Water Quality:</i>	Eleven water samples, 10 samples exceeding (SWRCB, 2003).
<i>Spatial Representation:</i>	Collected at Hwy. 126.
<i>Temporal Representation:</i>	Quarterly sampling events, 2002-2003.
<i>Data Quality Assessment:</i>	United Water Conservation District

Region 4

Water Segment: Los Angeles Harbor - Consolidated Slip

Pollutant: Cadmium

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under sections 4.6 and 4.9 of the Listing Policy. Under section 4.6 a single line of evidence is necessary to assess delisting status while under section 4.9, a minimum of two lines of evidence are needed to assess listing status.

Four lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, the site has significant sediment toxicity and the pollutant concentration exceeds the sediment guideline. The benthic community is impacted.

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

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Six of 20 samples exceeded the 4.21 µg/g PEL cadmium sediment guideline, 8 samples exhibit toxicity, and 4 sediment stations had a degraded benthic community. The four lines of evidence show that the water body segment exceeds the allowable frequency listed in Table 4.1 of the Listing Policy. The benthic community in this water body is impacted and this pollutant is associated with this impact.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by: -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and -Protecting wildlife corridors. Basin Plan (LARWQCB, 1995): Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.
<i>Evaluation Guideline:</i>	PEL: 4.21 µg/g (MacDonald et al., 1996).
<i>Data Used to Assess Water Quality:</i>	Of the 41 sediment core and grab samples, 15 exceed the sediment quality guideline (LARWQCB and CCC, 2004).
<i>Spatial Representation:</i>	Samples were collected throughout the water body.
<i>Temporal Representation:</i>	Samples collected between 1992 and 1997.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan (Stephenson et al., 1994). Contaminated Sediments Task Force Database.

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and -Protecting wildlife corridors.
<i>Evaluation Guideline:</i>	Significant toxicity as compared to control conditions.
<i>Data Used to Assess Water Quality:</i>	Thirteen of 17 samples were significantly toxic (Anderson et al., 1998).
<i>Spatial Representation:</i>	Samples were collected throughout the estuary.
<i>Temporal Representation:</i>	Samples were collected in 1994 and 1996.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan (Stephenson et al., 1994).

Numeric Line of Evidence	Population/Community Degradation
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	<p>Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by:</p> <ul style="list-style-type: none"> -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and -Protecting wildlife corridors. <p>Basin Plan (LARWQCB, 1995): Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.</p>
<i>Evaluation Guideline:</i>	Evaluation of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community (Anderson et al., 1998).
<i>Data Used to Assess Water Quality:</i>	Eleven samples are available with 5 exhibiting degraded conditions and 6 with transitional community characteristics (Anderson et al., 1998).
<i>Spatial Representation:</i>	The samples were collected throughout the water body.
<i>Temporal Representation:</i>	Samples were collected in 1992 and 1996.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan (Stephenson et al., 1994).

Line of Evidence	Remedial Program in Place
<i>Beneficial Use</i>	MA - Marine Habitat
<i>Information Used to Assess Water Quality:</i>	The Consolidated Toxic Hot Spots Cleanup Plan describes how the Los Angeles Contaminated Task Force will develop a plan for the cleanup of this site. While the planning has progressed, no remediation of the site has occurred. No responsible parties have been identified.

Region 4

Water Segment: Los Angeles Harbor - Consolidated Slip

Pollutant: Chlordane

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for delisting under sections 4.6 of the Listing Policy. Under section 4.6 two lines of evidence are necessary to assess listing status.

Four lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, there is known significant toxicity and benthic impacts associated with this pollutant and the number of pollutant exceedances exceed the frequency allowed by the Listing Policy.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of not removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies, with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Thirty of 39 samples taken between 1993 and 1997 exceeded the 6ng/g Effects Range Medium sediment guideline, There is known significant sediment toxicity data and benthic community impacts associated with the water body segment, and pollutant concentrations exceed the allowable frequency listed in Table 4.1 of the Listing Policy.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and -Protecting wildlife corridors.
<i>Evaluation Guideline:</i>	Significant toxicity as compared to control conditions.
<i>Data Used to Assess Water Quality:</i>	Thirteen of 17 samples were significantly toxic (Anderson et al., 1998).
<i>Spatial Representation:</i>	Samples were collected throughout the estuary.
<i>Temporal Representation:</i>	Samples were collected in 1994 and 1996.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan (Stephenson et al., 1994).
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Numeric Line of Evidence	Population/Community Degradation
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by: -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and -Protecting wildlife corridors. Basin Plan (LARWQCB, 1995): Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.
<i>Evaluation Guideline:</i>	Evaluation of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community (Anderson et al., 1998).
<i>Data Used to Assess Water Quality:</i>	Eleven samples are available with 5 exhibiting degraded conditions and 6 with transitional community characteristics (Anderson et al., 1998).

Spatial Representation: The samples were collected throughout the water body.
Temporal Representation: Samples were collected in 1992 and 1996.
Data Quality Assessment: BPTCP Quality Assurance Project Plan (Stephenson et al., 1994).

Numeric Line of Evidence Pollutant-Sediment
Beneficial Use: MA - Marine Habitat
Matrix: Sediment
*Water Quality Objective/
Water Quality Criterion:* Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use (LARWQCB, 1995)
Evaluation Guideline: An Effect Range Median of 6 ng/g was used (Long and Morgan, 1990).
*Data Used to Assess Water
Quality:* Of the 39 core and grab samples, 30 exceed the sediment quality guideline (LARWQCB and CCC, 2004).
Spatial Representation: The samples are spread throughout the water body.
Temporal Representation: Samples were collected between 1993 and 1997.
Data Quality Assessment: Bay Protection and Toxic Cleanup Program (Stephenson et al., 1994) Contaminated Sediments Task Force Database.

Numeric Line of Evidence Pollutant-Tissue
Beneficial Use: MA - Marine Habitat
Matrix: Tissue
*Water Quality Objective/
Water Quality Criterion:* Basin Plan: Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels which are harmful to aquatic life or human health (LARWQCB, 1995)
Evaluation Guideline: OEHHA Screening Value: 2.0 µg/kg (Brodberg and Pollock, 1999).
*Data Used to Assess Water
Quality:* The guideline is not exceeded in any of the 12 measurements. The original listing was based on exceeding background levels rather than valid assessment guidelines (TSMP, 2002).
Spatial Representation: One station.
Temporal Representation: Data collected in most years from 1992 through 2003.
Data Quality Assessment: State Mussel Watch Program.

Region 4

Water Segment: Los Angeles Harbor - Consolidated Slip

Pollutant: Chromium (total)

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for delisting under sections 4.6 of the Listing Policy. Under section 4.6 two lines of evidence are necessary to assess listing status.

Three lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, there is known significant toxicity and bioassessment data associated with this pollutant and the number of pollutant exceedances exceed the frequency allowed by the Listing Policy.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of not removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies, with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Twelve of 41 samples taken between 1992 and 1997 exceeded the 370 µg/g Effects Range Medium sediment guideline, There is known significant toxicity data and benthic community impacts associated with the water body segment, and pollutant concentrations exceed the allowable frequency listed in Table 4.1 of the Listing Policy.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and -Protecting wildlife corridors.
<i>Evaluation Guideline:</i>	Significant toxicity as compared to control conditions.
<i>Data Used to Assess Water Quality:</i>	Thirteen of 17 samples were significantly toxic (Anderson et al., 1998).
<i>Spatial Representation:</i>	Samples were collected throughout the estuary.
<i>Temporal Representation:</i>	Samples were collected in 1994 and 1996.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan (Stephenson et al., 1994).
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Numeric Line of Evidence	Population/Community Degradation
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by: -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and -Protecting wildlife corridors. Basin Plan (LARWQCB, 1995): Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.
<i>Evaluation Guideline:</i>	Evaluation of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community (Anderson et al., 1998).
<i>Data Used to Assess Water Quality:</i>	Eleven samples are available with 5 exhibiting degraded conditions and 6 with transitional community characteristics (Anderson et al., 1998).

Spatial Representation: The samples were collected throughout the water body.
Temporal Representation: Samples were collected in 1992 and 1996.
Data Quality Assessment: BPTCP Quality Assurance Project Plan (Stephenson et al., 1994).

Numeric Line of Evidence Pollutant-Sediment
Beneficial Use: MA - Marine Habitat
Matrix: Sediment
*Water Quality Objective/
Water Quality Criterion:* Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use (LARWQCB, 1995)
Evaluation Guideline: An Effects Range-Median of 370 µg/g was used (Long et al., 1995).
*Data Used to Assess Water
Quality:* Of the 41 core and grab samples, 12 exceeded the sediment guideline (LARWQCB and CCC, 2004).
Spatial Representation: The samples are spread throughout the water body.
Temporal Representation: Samples collected between 1992 and 1997.
Data Quality Assessment: Bay Protection and Toxic Cleanup Program (Stephenson et al., 1994) Contaminated Sediments Task Force Database.

Region 4

Water Segment: Los Angeles Harbor - Consolidated Slip

Pollutant: Copper

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under sections 4.6 and 4.9 of the Listing Policy. Under section 4.6 a single line of evidence is necessary to assess delisting status while under section 4.9, a minimum of two lines of evidence are needed to assess listing status.

Four lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, the site has significant sediment toxicity and the pollutant concentration exceeds the sediment guideline. The benthic community is impacted.

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

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Two of 20 samples exceeded the 270 µg/g cadmium sediment guideline, 8 samples exhibit toxicity, and 4 sediment stations had a degraded benthic community. The four lines of evidence show that the water body segment exceeds the allowable frequency listed in Table 4.1 of the Listing Policy. The benthic community in this water body is impacted and this pollutant is associated with this impact.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by: -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and -Protecting wildlife corridors. Basin Plan (LARWQCB, 1995): Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.
<i>Evaluation Guideline:</i>	ERM of 270 µg/g (Long et al., 1995).
<i>Data Used to Assess Water Quality:</i>	Data set from 2002 has 122 core samples; 1992-1997 data set has 41 samples. Of the 163 measurements, 103 exceed the sediment quality guideline (LARWQCB and CCC, 2004).
<i>Spatial Representation:</i>	Samples were collected throughout the water body.
<i>Temporal Representation:</i>	Samples collected from 1992 through 1997 and in 2002.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan (Stephenson et al., 1994) Contaminated Sediments Task Force Database.

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and -Protecting wildlife corridors.
<i>Evaluation Guideline:</i>	Significant toxicity as compared to control conditions.
<i>Data Used to Assess Water Quality:</i>	Thirteen of 17 samples were significantly toxic (Anderson et al., 1998).
<i>Spatial Representation:</i>	Samples were collected throughout the estuary.
<i>Temporal Representation:</i>	Samples were collected in 1994 and 1996.

Data Quality Assessment: BPTCP Quality Assurance Project Plan (Stephenson et al., 1994).

Numeric Line of Evidence Population/Community Degradation

Beneficial Use: MA - Marine Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by:

- Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally,
- Protecting food supplies for fish and wildlife,
- Protecting reproductive and nursery areas, and
- Protecting wildlife corridors.

Basin Plan (LARWQCB, 1995): Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.

Evaluation Guideline: Evaluation of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community (Anderson et al., 1998).

Data Used to Assess Water Quality: Eleven samples are available with 5 exhibiting degraded conditions and 6 with transitional community characteristics (Anderson et al., 1998).

Spatial Representation: The samples were collected throughout the water body.

Temporal Representation: Samples were collected in 1992 and 1996.

Data Quality Assessment: BPTCP Quality Assurance Project Plan (Stephenson et al., 1994).

Line of Evidence Remedial Program in Place

Beneficial Use MA - Marine Habitat

Information Used to Assess Water Quality: The Consolidated Toxic Hot Spots Cleanup Plan describes how the Los Angeles Contaminated Task Force will develop a plan for the cleanup of this site. While the planning has progressed, no remediation of the site has occurred. No responsible parties have been identified.

Region 4

Water Segment: Los Angeles Harbor - Consolidated Slip

Pollutant: DDT

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.4 of the Listing Policy. Under section 4.4 a single line of evidence is necessary to assess delisting status.

Three lines of evidence are available in the administrative record to assess this pollutant. Tissue data was used to place this water body pollutant on the 2002 list. There is also an OEHHA fish consumption advisory established in this water body segment. Under section 4.4 of the Listing Policy any water body segment where a health advisory against consumption of edible resident organisms has been removed and the chemical or biological contaminant specific evaluation guideline for tissue is no longer exceeded shall be removed from the section 303(d) list.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of not removing this water segment-pollutant combination on the section 303(d) list in the Water Quality Limited Segments category.

This conclusion is based on the staff findings that an OEHHA fish consumption advisory has been established for this pollutant and the water segment specific data indicates that the 100 µg/kg evaluation guideline for tissue was exceeded once. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use (LARWQCB, 1995)
<i>Evaluation Guideline:</i>	No sediment quality guideline is available for this pollutant that satisfies the requirements of section 6.1.3 of the Listing Policy (LARWQCB and

CCC, 2004).

Data Used to Assess Water Quality: One-hundred and sixty-two samples are available.

Spatial Representation: The samples are spread throughout the water body.

Temporal Representation: The samples were collected between 1992 and 1997.

Data Quality Assessment: Bay Protection and Toxic Cleanup Program (Stephenson et al., 1994) Contaminated Sediments Task Force Database.

Numeric Line of Evidence Pollutant-Tissue

Beneficial Use: MA - Marine Habitat

Matrix: Tissue

Water Quality Objective/ Water Quality Criterion: Basin Plan: Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels which are harmful to aquatic life or human health (LARWQCB, 1995)

Evaluation Guideline: An OEHHA screening value of 100 µg/kg was used.

Data Used to Assess Water Quality: The guideline is exceeded in one of the 12 measurements. The original listing was based on exceeding background levels rather than valid assessment guidelines (SMWP, 2004).

Spatial Representation: One station.

Temporal Representation: Samples were collected from 1992 through 2003.

Data Quality Assessment: State Mussel Watch Program.

Line of Evidence Health Advisories

Beneficial Use MA - Marine Habitat

Information Used to Assess Water Quality: A fish consumption advisory has been established for the DDT in the Los Angeles/Long Beach Harbor area. The advisory was established by the Office of Environmental Health Hazard Assessment.

Region 4

Water Segment: Los Angeles Harbor - Consolidated Slip

Pollutant: Lead

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for delisting under sections 4.6 of the Listing Policy. Under section 4.6 two lines of evidence are necessary to assess listing status.

Three lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, there is known significant toxicity and bioassessment data associated with this pollutant and the number of pollutant exceedances exceed the frequency allowed by the Listing Policy.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of not removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies, with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Twenty-two of 41 samples taken between 1992 and 1997 and 77 of 122 samples taken in 2002 exceeded the 112.18 µg/g Effects Range Medium sediment guideline, There is known significant toxicity data and benthic community impacts associated with the water body segment, and pollutant concentrations exceed the allowable frequency listed in Table 4.1 of the Listing Policy.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use (LARWQCB, 1995)
<i>Evaluation Guideline:</i>	A probable Effects Level of 112.18 µg/g was used (MacDonald et al., 1996).
<i>Data Used to Assess Water Quality:</i>	Data set from 2002: 77 of 122 core and grab samples exceed the sediment guideline. Data from 1992-1997: 22 of 41 core and grab samples exceed the sediment guideline (LARWQCB and CCC, 2004).
<i>Spatial Representation:</i>	The 163 samples are spread throughout the water body.
<i>Temporal Representation:</i>	Samples were collected from 1992 to 1997 and in 2002.
<i>Data Quality Assessment:</i>	Bay Protection and Toxic Cleanup Program (Stephenson et al., 1994) Contaminated Sediments Task Force Database.

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and -Protecting wildlife corridors.
<i>Evaluation Guideline:</i>	Significant toxicity as compared to control conditions.
<i>Data Used to Assess Water Quality:</i>	Thirteen of 17 samples were significantly toxic (Anderson et al., 1998).
<i>Spatial Representation:</i>	Samples were collected throughout the estuary.
<i>Temporal Representation:</i>	Samples were collected in 1994 and 1996.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan (Stephenson et al., 1994).

Numeric Line of Evidence	Population/Community Degradation
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment

<i>Water Quality Objective/ Water Quality Criterion:</i>	<p>Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by:</p> <ul style="list-style-type: none"> -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and -Protecting wildlife corridors. <p>Basin Plan (LARWQCB, 1995): Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.</p>
<i>Evaluation Guideline:</i>	<p>Evaluation of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community (Anderson et al., 1998).</p>
<i>Data Used to Assess Water Quality:</i>	<p>Eleven samples are available with 5 exhibiting degraded conditions and 6 with transitional community characteristics (Anderson et al., 1998).</p>
<i>Spatial Representation:</i>	<p>The samples were collected throughout the water body.</p>
<i>Temporal Representation:</i>	<p>Samples were collected in 1992 and 1996.</p>
<i>Data Quality Assessment:</i>	<p>BPTCP Quality Assurance Project Plan (Stephenson et al., 1994).</p>

Region 4

Water Segment: Los Angeles Harbor - Consolidated Slip

Pollutant: Mercury

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under sections 4.6 and 4.9 of the Listing Policy. Under section 4.6 a single line of evidence is necessary to assess delisting status while under section 4.9, a minimum of two lines of evidence are needed to assess listing status.

Four lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, the site has significant sediment toxicity and the pollutant concentration exceeds the sediment guideline. The benthic community is impacted.

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

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Two of 20 samples exceeded the 2.1 µg/g mercury sediment guideline, 8 samples exhibit toxicity, and 4 sediment stations had a degraded benthic community. The four lines of evidence show that the water body segment exceeds the allowable frequency listed in Table 4.1 of the Listing Policy. The benthic community in this water body is impacted and this pollutant is associated with this impact.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use. (LARWQCB, 1995)
<i>Evaluation Guideline:</i>	Sediment Quality Guideline: 2.1 µg/g (PTI Environmental Services, 1991).
<i>Data Used to Assess Water Quality:</i>	Data set from 2002 has 122 samples and the data from 1992 through 1997 has 33 samples (cores and grabs). Twenty-three measures exceed the sediment guideline in 155 samples (LARWQCB and CCC, 2004).
<i>Spatial Representation:</i>	Samples were collected throughout the water body.
<i>Temporal Representation:</i>	Samples were collected between 1992 and 2002.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan. (Stephenson et al., 1994) Contaminated Sediments Task Force Database.

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and -Protecting wildlife corridors.
<i>Evaluation Guideline:</i>	Significant toxicity as compared to control conditions.
<i>Data Used to Assess Water Quality:</i>	Thirteen of 17 samples were significantly toxic (Anderson et al., 1998).
<i>Spatial Representation:</i>	Samples were collected throughout the estuary.
<i>Temporal Representation:</i>	Samples were collected in 1994 and 1996.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan (Stephenson et al., 1994).

Numeric Line of Evidence	Population/Community Degradation
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment

<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by: <ul style="list-style-type: none"> -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and -Protecting wildlife corridors. <p>Basin Plan (LARWQCB, 1995): Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.</p>
<i>Evaluation Guideline:</i>	Evaluation of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community (Anderson et al., 1998).
<i>Data Used to Assess Water Quality:</i>	Eleven samples are available with 5 exhibiting degraded conditions and 6 with transitional community characteristics (Anderson et al., 1998).
<i>Spatial Representation:</i>	The samples were collected throughout the water body.
<i>Temporal Representation:</i>	Samples were collected in 1992 and 1996.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan (Stephenson et al., 1994).

<i>Line of Evidence</i>	Remedial Program in Place
<i>Beneficial Use</i>	MA - Marine Habitat
<i>Information Used to Assess Water Quality:</i>	The Consolidated Toxic Hot Spots Cleanup Plan describes how the Los Angeles Contaminated Sediment Task Force will develop a plan for the cleanup of this site. While the planning has progressed, no remediation of the site has occurred. No responsible parties have been identified.

Region 4

Water Segment: Los Angeles Harbor - Consolidated Slip

Pollutant: Polychlorinated biphenyls

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under sections 4.4, 4.5, and 4.6 of the Listing Policy. Under section 4.4 and 4.5 a single line of evidence is necessary to assess delisting status while under section 4.6, a minimum of two lines of evidence are needed to assess listing status.

Five lines of evidence are available in the administrative record to assess this pollutant. There is a PCB fish consumption health advisory established for the Los Angeles/ Long Beach harbor area. Tissue data shows exceedances of the OEHHA tissue guidelines, sediment core samples taken between 1992 and 2002 exceed PCBs sediment guidelines and significant sediment toxicity has been documented in the segment. In addition, the benthic community is impacted as well.

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

This conclusion is based on the staff findings that:

1. The tissue and sediment quality guidelines used comply with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Eighty-eight of 161 samples exceeded the 400 ng/g sediment guideline, 13 of 17 samples exhibit toxicity. Twelve of 12 tissue samples exceeded the 20 µg/kg OEHHA tissue guidelines. All of these exceedances surpass the allowable frequency listed in Table 4.1 of the Listing Policy. There is a PCB fish consumption health advisory established for the Los Angeles/ Long Beach harbor area and the benthic community in this water body is impacted.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met

SWRCB Staff Recommendation:

After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and -Protecting wildlife corridors.
<i>Evaluation Guideline:</i>	Significant toxicity as compared to control conditions.
<i>Data Used to Assess Water Quality:</i>	Thirteen of 17 samples were significantly toxic (Anderson et al., 1998).
<i>Spatial Representation:</i>	Samples were collected throughout the estuary.
<i>Temporal Representation:</i>	Samples were collected in 1994 and 1996.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan (Stephenson et al., 1994).
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Numeric Line of Evidence	Population/Community Degradation
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by: -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and -Protecting wildlife corridors. Basin Plan (LARWQCB, 1995): Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.
<i>Evaluation Guideline:</i>	Evaluation of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community (Anderson et al., 1998).
<i>Data Used to Assess Water Quality:</i>	Eleven samples are available with 5 exhibiting degraded conditions and 6 with transitional community characteristics (Anderson et al., 1998).

Spatial Representation: The samples were collected throughout the water body.
Temporal Representation: Samples were collected in 1992 and 1996.
Data Quality Assessment: BPTCP Quality Assurance Project Plan (Stephenson et al., 1994).

Numeric Line of Evidence Pollutant-Tissue
Beneficial Use: CM - Commercial and Sport Fishing (CA), MA - Marine Habitat
Matrix: Tissue
*Water Quality Objective/
Water Quality Criterion:* Basin Plan: Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels which are harmful to aquatic life or human health (LARWQCB, 1995)
Evaluation Guideline: An OEHHA tissue guideline of 20 µg/kg was used (Brodberg & Pollack, 1999)
Data Used to Assess Water Quality: The tissue guideline is exceeded in 12 of 12 measurements (SMWP, 2004).
Spatial Representation: One station.
Temporal Representation: Samples were collected between 1992 and 2003.
Data Quality Assessment: State Mussel Watch Program.

Numeric Line of Evidence Pollutant-Sediment
Beneficial Use: CM - Commercial and Sport Fishing (CA), MA - Marine Habitat
Matrix: Sediment
*Water Quality Objective/
Water Quality Criterion:* Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use (LARWQCB, 1995)
Evaluation Guideline: A sediment quality guideline of 400 ng/g was used (MacDonald et al., 2000).
Data Used to Assess Water Quality: Of the 161 core and grab samples, 88 exceed the guideline (LARWQCB and CCC, 2004).
Spatial Representation: The samples are spread throughout the water body.
Temporal Representation: Samples were collected between 1992 and 2002.
Data Quality Assessment: Bay Protection and Toxic Cleanup Program (Stephenson et al., 1994). Contaminated Sediments Task Force Database.

Line of Evidence

Health Advisories

Beneficial Use

CM - Commercial and Sport Fishing (CA), MA - Marine Habitat

***Information Used to Assess
Water Quality:***

A fish consumption advisory has been established for PCBs in the Los Angeles/Long Beach Harbor area. The advisory was established by the Office of Environmental Health Hazard Assessment.

Region 4

Water Segment: Los Angeles Harbor - Consolidated Slip

Pollutant: Toxaphene

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.5 of the Listing Policy. Under section 4.5 a single line of evidence is necessary to assess delisting status.

One line of evidence is available in the administrative record to assess this pollutant.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. Five of 12 samples exceeded the 30 µg/kg OEHHA tissue guideline but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

Beneficial Use: MA - Marine Habitat

Matrix: Tissue

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels that are harmful to aquatic life or human health (LARWQCB, 1995).

Evaluation Guideline: An OEHHA tissue guideline of 30 µg/kg was used (Brodberg and Pollock, 1999).

Data Used to Assess Water Quality: Five measurements of 12 total measurements exceed the tissue guideline (SMWP, 2004).

Spatial Representation: One station.
Temporal Representation: One sample per year from 1992 through 2003.
Data Quality Assessment: State Mussel Watch Program.

Region 4

Water Segment: Los Angeles Harbor - Consolidated Slip

Pollutant: Zinc

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for delisting under sections 4.6 of the Listing Policy. Under section 4.6 two lines of evidence are necessary to assess listing status.

Three lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, there is known significant toxicity and bioassessment data associated with this pollutant and the number of pollutant exceedances exceed the frequency allowed by the Listing Policy.

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

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies, with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Thirty of 41 samples taken between 1992 and 1997 and 76 of 122 samples taken in 2002 exceeded the 410 µg/g Effects Range Medium sediment guideline. There is known significant toxicity data and benthic community impacts associated with the water body segment, and pollutant concentrations exceed the allowable frequency listed in Table 4.1 of the Listing Policy.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and -Protecting wildlife corridors.
<i>Evaluation Guideline:</i>	Significant toxicity as compared to control conditions.
<i>Data Used to Assess Water Quality:</i>	Thirteen of 17 samples were significantly toxic (Anderson et al., 1998).
<i>Spatial Representation:</i>	Samples were collected throughout the estuary.
<i>Temporal Representation:</i>	Samples were collected in 1994 and 1996.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan (Stephenson et al., 1994).
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Numeric Line of Evidence	Population/Community Degradation
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by: -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and -Protecting wildlife corridors. Basin Plan (LARWQCB, 1995): Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.
<i>Evaluation Guideline:</i>	Evaluation of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community (Anderson et al., 1998).
<i>Data Used to Assess Water Quality:</i>	Eleven samples are available with 5 exhibiting degraded conditions and 6 with transitional community characteristics (Anderson et al., 1998).

Spatial Representation: The samples were collected throughout the water body.
Temporal Representation: Samples were collected in 1992 and 1996.
Data Quality Assessment: BPTCP Quality Assurance Project Plan (Stephenson et al., 1994).

Numeric Line of Evidence Pollutant-Sediment
Beneficial Use: MA - Marine Habitat
Matrix: Sediment
*Water Quality Objective/
Water Quality Criterion:* Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use (LARWQCB, 1995).
Evaluation Guideline: An Effects Range-Median of 410 µg/g was used (Long et al., 1995).
*Data Used to Assess Water
Quality:* From the 2002 data set, 76 of 122 core and grab samples exceed the sediment guideline. For the 1992-1997 data set, 30 of 41 core and grab samples exceed the sediment guideline (LARWQCB and CCC, 2004).
Spatial Representation: The 163 samples are spread throughout the water body.
Temporal Representation: Samples were collected between 1992 and 1997 and in 2002.
Data Quality Assessment: Bay Protection and Toxic Cleanup Program.
Contaminated Sediments Task Force Database.

Region 4

Water Segment: Los Angeles River Estuary (Queensway Bay)

Pollutant: Chlordane

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for delisting under sections 4.6 of the Listing Policy. Under section 4.6 two lines of evidence are necessary to assess listing status.

Three lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, there is known significant toxicity and bioassessment data associated with this water body segment and pollutant sediment concentrations exceed sediment guidelines.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of not removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies, with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. There is significant toxicity and bioassessment data are associated with this water body segment, and nine of 9 sediment samples taken exceeded the sediment guidelines. There is an insufficient total number of samples to allow removal of this water body pollutant combination from the list using the frequencies presented in Table 4.1 of the Listing Policy.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by: -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and -Protecting wildlife corridors. Basin Plan (LARWQCB, 1995): Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.
<i>Evaluation Guideline:</i>	ERM: 6 ng/g (Long and Morgan, 1990)
<i>Data Used to Assess Water Quality:</i>	Nine samples, 9 samples exceeding (Anderson et al., 1998).
<i>Spatial Representation:</i>	Samples were collected synoptically with toxicity samples.
<i>Temporal Representation:</i>	Samples taken in 2 different years.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by: -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and -Protecting wildlife corridors. Basin Plan (LARWQCB, 1995): Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.
<i>Evaluation Guideline:</i>	BPTCP reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	Four of six sediment samples were found to be significantly toxic to amphipods (Anderson et al., 1998).
<i>Spatial Representation:</i>	Samples were collected synoptically with sediment samples.

Temporal Representation: Samples taken in 2 different years.
Data Quality Assessment: BPTCP Quality Assurance Project Plan.

Numeric Line of Evidence Population/Community Degradation
Beneficial Use: ES - Estuarine Habitat
Matrix: Sediment
*Water Quality Objective/
Water Quality Criterion:* Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by:

-Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally,
-Protecting food supplies for fish and wildlife,
-Protecting reproductive and nursery areas, and
-Protecting wildlife corridors.

Basin Plan (LARWQCB, 1995): Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.

Evaluation Guideline: Evaluation of the benthic data was completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community.

Data Used to Assess Water Quality: The benthic community was classified as transitional (Anderson et al., 1998).
Spatial Representation: Samples were collected synoptically with sediment and toxicity data.
Temporal Representation: Samples taken in 2 different years.
Data Quality Assessment: BPTCP

Region 4

Water Segment: Los Angeles River Estuary (Queensway Bay)

Pollutant: Lead

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for delisting under sections 4.6 of the Listing Policy. Under section 4.6 two lines of evidence are necessary to assess listing status.

Three lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, there is known significant toxicity and bioassessment data associated with this water body segment and pollutant sediment concentrations exceed sediment guidelines.

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

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies, with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. There is significant toxicity and bioassessment data are associated with this water body segment, and five of 27 sediment samples taken exceeded the sediment guidelines. There are insufficient total numbers of samples to allow removal of this water body pollutant combination from the list using the frequencies presented in Table 4.1 of the Listing Policy.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Existing habitats and associated populations of wetlands fauna and flora shall be maintained by: -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and -Protecting wildlife corridors. Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.
<i>Evaluation Guideline:</i>	PEL: 112.18 µg/g (McDonald et al., 1996).
<i>Data Used to Assess Water Quality:</i>	Twenty-seven samples, 5 samples exceeding (Anderson et al., 1998).
<i>Spatial Representation:</i>	Samples were collected synoptically with toxicity samples.
<i>Temporal Representation:</i>	Samples taken in three different years.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan.

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Existing habitats and associated populations of wetlands fauna and flora shall be maintained by: -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and -Protecting wildlife corridors. Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use. (LARWQCB, 1995)
<i>Evaluation Guideline:</i>	BPTCP reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	Four of six sediment samples were found to be significantly toxic to amphipod (Anderson et al., 1998).
<i>Spatial Representation:</i>	Samples were collected synoptically with sediment samples.

Temporal Representation: Samples taken in 2 different years.
Data Quality Assessment: BPTCP Quality Assurance Project Plan (Stephenson et al., 1994).

Numeric Line of Evidence Population/Community Degradation

Beneficial Use: ES - Estuarine Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by:

- Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally,
- Protecting food supplies for fish and wildlife,
- Protecting reproductive and nursery areas, and
- Protecting wildlife corridors.

Basin Plan (LARWQCB, 1995): Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.

Evaluation Guideline: Evaluation of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community.

Data Used to Assess Water Quality: The benthic community was classified as transitional (Anderson et al., 1998).

Spatial Representation: Samples were collected synoptically with sediment and toxicity samples.

Temporal Representation: Samples taken in 2 different years.

Data Quality Assessment: BPTCP Quality Assurance Project Plan (Stephenson et al., 1994).

Region 4

Water Segment: Los Angeles River Estuary (Queensway Bay)

Pollutant: Polychlorinated biphenyls

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for delisting under sections 4.6 of the Listing Policy. Under section 4.6 two lines of evidence are necessary to assess listing status.

Three lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, there is known significant toxicity and bioassessment data associated with this water body segment but the number of pollutant sediment exceedances does not exceed the frequency allowed by the Listing Policy.

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

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies, with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. There is significant toxicity data and bioassessment data are associated with this water body segment. None of the 18 sediment samples taken exceeded the sediment guidelines but the number of samples is insufficient to delist pursuant to the Listing Policy.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

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

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Existing habitats and associated populations of wetlands fauna and flora shall be maintained by: -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and -Protecting wildlife corridors. Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use. (LARWQCB, 1995)
<i>Evaluation Guideline:</i>	Sediment guideline of 400 ng/g used (MacDonald et al., 2000).
<i>Data Used to Assess Water Quality:</i>	Eighteen samples with no samples exceeding. (Anderson et al., 1998).
<i>Spatial Representation:</i>	Samples were collected synoptically with toxicity samples.
<i>Temporal Representation:</i>	Samples taken in 2 different years.
<i>Data Quality Assessment:</i>	BPTCP Quality Assurance Project Plan. (Stephenson et al., 1994)

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Existing habitats and associated populations of wetlands fauna and flora shall be maintained by: -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and -Protecting wildlife corridors. Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.
<i>Evaluation Guideline:</i>	BPTCP reference envelope approach used. (Anderson et al., 1998)
<i>Data Used to Assess Water Quality:</i>	Four out of six sediment samples were found to be significantly toxic to amphipods. (Anderson, et al., 1998).
<i>Spatial Representation:</i>	Samples were collected synoptically with sediment samples.

Temporal Representation: Samples taken in 2 different years.
Data Quality Assessment: BPTCP Quality Assurance Project Plan. (Stephenson et al., 1994).

Numeric Line of Evidence Population/Community Degradation

Beneficial Use: ES - Estuarine Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by:

- Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally,
- Protecting food supplies for fish and wildlife,
- Protecting reproductive and nursery areas, and
- Protecting wildlife corridors.

Basin Plan (LARWQCB, 1995): Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.

Evaluation Guideline: Evaluation of the benthic data were completed using the approaches developed by scientists associated with the BPTCP. The relative benthic index used is a calculated value considering the total fauna, total mollusk species, crustacean species and indicator species at a site. The index ranges from 0 to 1.0. An index value of less than or equal to 0.3 is an indication that pollutants or other factors are negatively impacting the benthic community (Anderson et al., 1998).

Data Used to Assess Water Quality: The benthic community was classified as transitional (Anderson et al., 1998).

Spatial Representation: Samples were collected synoptically with sediment and toxicity samples.

Temporal Representation: Samples taken in 2 different years.

Data Quality Assessment: BPTCP Quality Assurance Project Plan (Stephenson et al., 1994).

Region 4

Water Segment: Los Cerritos Channel

Pollutant: Chlordane

Decision: Do Not Delist

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

One line of evidence is available in the administrative record to assess this pollutant. This line of evidence was probably used to place this water body pollutant combination on the 303(d) list originally. One of the samples exceed the ERM sediment quality guidance and the number of samples is insufficient to make a delisting determination with the confidence and power required by the Listing Policy.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of 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. One of four samples exceeded the ERM sediment guideline. At least 28 samples are needed before a pollutant can be considered for removal from the list using the frequencies presented 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Sediment

Beneficial Use: ES - Estuarine Habitat, MA - Marine Habitat, MI - Fish Migration, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: Existing habitats and associated populations of wetlands fauna and flora shall be maintained by:

- Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally,
 - Protecting food supplies for fish and wildlife,
 - Protecting reproductive and nursery areas, and
 - Protecting wildlife corridors.
- (LARWQCB, 1995)

Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.

<i>Evaluation Guideline:</i>	ERM: 6 ng/g (Long and Morgan, 1990).
<i>Data Used to Assess Water Quality:</i>	Four sediment samples with one sample exceeding the ERM. (Anderson, et al., 1998).
<i>Spatial Representation:</i>	Data was collected spatially.
<i>Temporal Representation:</i>	Winter 1993 and 1994.
<i>Data Quality Assessment:</i>	BPTCP QAPP.

Region 4

Water Segment: Machado Lake (Harbor Park Lake)

Pollutant: Chlordane

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under section 4.5 of the Listing Policy. One line of evidence is available in the administrative record to assess this pollutant.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Four of the 9 samples exceeded the OEHHA Screening Value but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

Beneficial Use: CM - Commercial and Sport Fishing (CA), R2 - Non-Contact Recreation

Matrix: Tissue

*Water Quality Objective/
Water Quality Criterion:* Los Angeles RWQCB Basin Plan: Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels which are harmful to aquatic life or human health.

Evaluation Guideline: OEHHA Screening Value is 30 ng/g (Brodberg & Pollock, 1999). Sport fishing is an existing use in this water body.

Data Used to Assess Water Quality: Four out of 9 samples exceeded. A total of 9 filet composite samples of carp and largemouth bass were collected. Carp were collected in 1993-94, 1997, and 2002. Largemouth bass were collected in 1992, 1994, 1997, and 2002. The guideline was exceeded in 1993, 1994, 1997, and

2002 samples of carp. Largemouth bass did not exceed the guideline (TSMP, 2002).

Spatial Representation:

One station in the entire lake.

Temporal Representation:

Samples were collected annually 1992-94, 1997, and 2002.

Data Quality Assessment:

Toxic Substances Monitoring Program 1992-93 and 1994-95 Data Reports.

Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 1996-2000. Department of Fish and Game

Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 4

Water Segment: Machado Lake (Harbor Park Lake)
Pollutant: DDT
Decision: Do Not Delist
Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.5 of the Listing Policy. One line of evidence is available in the administrative record to assess this pollutant.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Four of the 9 samples exceeded the OEHHA Screening Value but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Tissue
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA), R2 - Non-Contact Recreation
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	Los Angeles RWQCB Basin Plan: Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels which are harmful to aquatic life or human health.
<i>Evaluation Guideline:</i>	OEHHA Screening Value is 100 ng/g (Brodberg & Pollock, 1999). Sport fishing is an existing use in this water body.
<i>Data Used to Assess Water Quality:</i>	Four out of 9 samples exceeded. A total of 5 filet composite samples of largemouth bass and 4 composite filet samples of carp were collected. Largemouth bass were collected in 1992, 1994, 1997, and 2002. Carp were collected in 1993-94, 1997, and 2002. The guideline was exceeded

in all carp samples. Largemouth bass did not exceed the guideline (TSMP, 2002).

Spatial Representation:

One station in the entire lake.

Temporal Representation:

Samples were collected annually 1992-94, 1997, and 2002.

Data Quality Assessment:

Toxic Substances Monitoring Program 1992-93 and 1994-95 Data Reports.

Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 1996-2000. Department of Fish and Game

Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 4

Water Segment: Machado Lake (Harbor Park Lake)

Pollutant: Dieldrin

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.5 of the Listing Policy. One line of evidence is available in the administrative record to assess this pollutant.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Four of the 9 samples exceeded the OEHHA Screening Value but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

Beneficial Use: CM - Commercial and Sport Fishing (CA), R2 - Non-Contact Recreation

Matrix: Tissue

*Water Quality Objective/
Water Quality Criterion:* Los Angeles RWQCB Basin Plan: Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels which are harmful to aquatic life or human health.

Evaluation Guideline: OEHHA Screening Value is 2 ng/g (Brodberg & Pollock, 1999). Sport fishing is an existing use in this water body.

Data Used to Assess Water Quality: Four out of 9 samples exceeded. A total of 5 filet composite samples of largemouth bass and 4 composite filet samples of carp were collected. Largemouth bass were collected in 1992, 1994, 1997, and 2002. Carp were collected in 1993-94, 1997, and 2002. The guideline was exceeded

in all carp samples. Largemouth bass did not exceed the guideline (TSMP, 2002).

Spatial Representation: One station in the entire lake.

Temporal Representation: Samples were collected annually 1992-94, 1997, and 2002.

Data Quality Assessment: Toxic Substances Monitoring Program 1992-93 and 1994-95 Data Reports.
Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 1996-2000. Department of Fish and Game
Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 4

Water Segment: Machado Lake (Harbor Park Lake)
Pollutant: Polychlorinated biphenyls
Decision: Do Not Delist
Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.5 of the Listing Policy. One line of evidence is available in the administrative record to assess this pollutant.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Four of the 9 samples exceeded the OEHHA Screening Value but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Tissue
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA), R2 - Non-Contact Recreation
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	Los Angeles RWQCB Basin Plan: Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels which are harmful to aquatic life or human health.
<i>Evaluation Guideline:</i>	OEHHA Screening Value is 20 ng/g (Brodberg & Pollock, 1999). Sport fishing is an existing use in this water body.
<i>Data Used to Assess Water Quality:</i>	Four out of 9 samples exceeded. A total of 5 filet composite samples of largemouth bass and 4 filet composite samples of carp were collected. Carp were collected in 1993-94, 1997, and 2002. Largemouth bass were collected in 1992, 1994, 1997, and 2002. The guideline was exceeded in

1993, 1994, 1997, and 2002 samples of carp. Largemouth bass did not exceed the guideline (TSMP, 2002).

Spatial Representation:

One station in the entire lake.

Temporal Representation:

Samples were collected annually 1992-94, 1997, and 2002.

Data Quality Assessment:

Toxic Substances Monitoring Program 1992-93 and 1994-95 Data Reports.

Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 1996-2000. Department of Fish and Game

Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 4

Water Segment: Malibu Lagoon

Pollutant: pH

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.2 of the Listing Policy. Under section 4.2 a single line of evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. This line of evidence was probably used to place the water body pollutant combination on the 2002 303(d) list originally. Thirty-three samples exceeded the water quality objective when the water body was listed. However, twenty-two exceedances or less would be required in order to delist the water body pollutant combination to provide the adequate confidence and power that standards are being met in accordance with the Listing Policy.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of 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. Thirty-three of 138 samples exceeded the pH water quality objective. At least 22 samples or less are needed before a pollutant can be considered for removal from the list using the frequencies presented in Table 4.2 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 met.

**SWRCB Staff
Recommendation:**

After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	ES - Estuarine Habitat, MA - Marine Habitat, MI - Fish Migration, RA - Rare & Endangered Species, SP - Fish Spawning, WE - Wetland Habitat, WI - Wildlife Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: The pH of bays and estuaries shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharges. Ambient pH levels shall not be changed more than 0.2 units from natural conditions as a result of waste discharge.
<i>Data Used to Assess Water Quality:</i>	There were 138 water samples, with 33 samples exceeding the water quality objective (SWRCB, 2003).
<i>Spatial Representation:</i>	pH data was collected at various monitoring stations within the lagoon.
<i>Temporal Representation:</i>	Winter 1997, Summer-Winter 1998, Winter- Fall 1999.
<i>Data Quality Assessment:</i>	Las Virgenas NPDES Municipal Water District.

Region 4

Water Segment: McCoy Canyon Creek

Pollutant: Fecal Coliform

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.3 of the Listing Policy. Under section 4.2 a single line of evidence is necessary to assess delisting status.

One line of evidence is available in the administrative record to assess this pollutant. This Line of evidence was probably used to place this water body pollutant combination on the 303(d) list originally. A sufficient number of samples exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. Thirty-eight of 56 samples originally exceeded the water quality objective and this exceeds 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: R1 - Water Contact Recreation

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: In waters designated for water contact recreation (REC-1), the fecal coliform concentration shall not exceed a log mean of 200/100 ml (based on a minimum of not less than four samples for any 30-day period), nor shall more than 10 percent of total samples during any 30-day period exceed 400/100 ml.

Data Used to Assess Water Quality: Fifty-six bacterial samples, 38 samples exceeding (SWRCB, 2003).

Spatial Representation: Samples were collected along the creek.

Temporal Representation: Spring, summer, fall, winter.

Data Quality Assessment: City of Calabasas NPDES Monitoring.

Region 4

Water Segment: McCoy Canyon Creek

Pollutant: Nitrogen, Nitrate

Decision: Do Not Delist

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

One line of evidence is available in the administrative record to assess this pollutant. This Line of evidence was probably used to place this water body pollutant combination on the 303(d) list originally A sufficient number of samples exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. 19 of 51 samples originally exceeded the water quality objective and this exceeds 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: GW - Groundwater Recharge

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: Waters shall not exceed 10 mg/L nitrogen as nitrate-nitrogen plus nitrite-nitrogen (NO₂-N), 45 mg/L as nitrate (NO₃), 10 mg/L as nitrate-nitrogen (NO₃-N), or 1 mg/L nitrite-nitrogen (NO₂-N) or as otherwise designated in [another part of the Basin Plan].

Data Used to Assess Water Quality: Fifty-one water samples, 19 samples exceeding (SWRCB, 2003).

Spatial Representation: Samples were collected along the creek.
Temporal Representation: Spring-Summer-Fall 2000 and Winter-Spring 2001.
Data Quality Assessment: City of Calabasas NPDES Monitoring.

Region 4

Water Segment: McGrath Lake

Pollutant: Dieldrin

Decision: Do Not Delist

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

Two lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6 the site has sediment toxicity and the pollutant is likely to be causing or contributing to the toxic effect, but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing this water segment-pollutant combination on the section 303(d) list in the Water Quality Limited Segments category.

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Two of two samples exceeded the sediment quality guideline for the pollutant, and two of five samples exhibit toxicity, but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.
5. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat, RA - Rare & Endangered Species, WE - Wetland Habitat, WI - Wildlife Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan (LARWQCB, 1995): Existing habitats and associated populations of wetlands fauna and flora shall be maintained by: -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and -Protecting wildlife corridors. Basin Plan (LARWQCB, 1995): Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.
<i>Evaluation Guideline:</i>	ERM of 8 ng/g used (Long et al., 1995).
<i>Data Used to Assess Water Quality:</i>	Two samples and both measurements exceed the sediment guideline (Anderson et al., 1998).
<i>Spatial Representation:</i>	Samples were collected concurrently with toxicity measurements.
<i>Temporal Representation:</i>	Four different events in 4 different years.
<i>Data Quality Assessment:</i>	BPTCP QAPP (Stephenson et al., 1994).

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat, RA - Rare & Endangered Species, WE - Wetland Habitat, WI - Wildlife Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Existing habitats and associated populations of wetlands fauna and flora shall be maintained by: -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and -Protecting wildlife corridors.
<i>Evaluation Guideline:</i>	BPTCP reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	Five amphipod toxicity tests with 2 measurements showing significant toxicity. One mussel development test with the measurement showing significant toxicity (Anderson et al., 1998).
<i>Spatial Representation:</i>	Samples were collected concurrently with chemical measurements.
<i>Temporal Representation:</i>	Four different events in 4 different years.

Data Quality Assessment: BPTCP and DFG QAPP (Stephenson et al., 1994).

Line of Evidence Remedial Program in Place

Beneficial Use ES - Estuarine Habitat, RA - Rare & Endangered Species, WE - Wetland Habitat, WI - Wildlife Habitat

Information Used to Assess Water Quality: The Consolidated Toxic Hot Spots Cleanup Plan describes how the RWQCB will work with the McGrath State Beach Area Trustee Council to address cleanup of this site. While the planning has progressed, no remediation of the site has occurred. No responsible parties have been identified.

Region 4

Water Segment: McGrath Lake

Pollutant: Fecal Coliform

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.3 of the Listing Policy. Under section 4.2 a single line of evidence is necessary to assess delisting status.

One line of evidence is available in the administrative record to assess this pollutant. This Line of evidence was probably used to place this water body pollutant combination on the 303(d) list originally. A sufficient number of samples exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. Six of 29 samples originally exceeded the water quality objective and this exceeds the allowable frequency listed in Table 4.2 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: R1 - Water Contact Recreation

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: In waters designated for water contact recreation (REC-1), the fecal coliform concentration shall not exceed a log mean of 200/100 ml (based on a minimum of not less than four samples for any 30-day period), nor shall more than 10 percent of total samples during any 30-day period exceed 400/100 ml.

Data Used to Assess Water Quality: 29 bacteria samples, 6 sample exceeding the geometric mean of 200/100 mL

Included in the 29 bacterial samples, 16 sample in the Spring of 2002.
5 of the 16 samples exceeded the 400/100 mL objective.

Spatial Representation: 5 sites.

Temporal Representation: Spring, Summer, and Fall 1999-2000.

Data Quality Assessment: Ventura Division of Environmental Health Services collected the data.

Region 4

Water Segment:	McGrath Lake
Pollutant:	Polychlorinated biphenyls
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.6 of the Listing Policy. Under section 4.6, one or more lines of evidence are necessary to assess listing status.</p> <p>Two lines of evidence are available in the administrative record to assess this pollutant. The site has significant sediment toxicity. None of the samples exceed the sediment guideline but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">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 5 samples exceeded the total PCB guideline. At least 28 samples are needed before a pollutant can be considered for removal from the list using the frequencies presented 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 met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
Beneficial Use:	ES - Estuarine Habitat, RA - Rare & Endangered Species, WE - Wetland Habitat, WI - Wildlife Habitat
Matrix:	Sediment
Water Quality Objective/ Water Quality Criterion:	Basin Plan: Existing habitats and associated populations of wetlands fauna and flora shall be maintained by: -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally,

- Protecting food supplies for fish and wildlife,
- Protecting reproductive and nursery areas, and
- Protecting wildlife corridors.

Basin Plan: Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.

<i>Evaluation Guideline:</i>	Sediment guideline of 400 ng/g used (MacDonald et al., 2000).
<i>Data Used to Assess Water Quality:</i>	Five sediment samples, none of the samples exceed the sediment guideline (Anderson et al., 1998).
<i>Spatial Representation:</i>	Samples were collected concurrently with toxicity measurements.
<i>Temporal Representation:</i>	4 different events in 4 different years.
<i>Data Quality Assessment:</i>	BPTCP and DFG QAPP (Stephenson et al., 1994).

Numeric Line of Evidence	Toxicity
<i>Beneficial Use:</i>	ES - Estuarine Habitat, RA - Rare & Endangered Species, WE - Wetland Habitat, WI - Wildlife Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: Existing habitats and associated populations of wetlands fauna and flora shall be maintained by: <ul style="list-style-type: none"> -Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally, -Protecting food supplies for fish and wildlife, -Protecting reproductive and nursery areas, and -Protecting wildlife corridors.
<i>Evaluation Guideline:</i>	BPTCP reference envelope approach used.
<i>Data Used to Assess Water Quality:</i>	Five amphipod toxicity tests with 2 measurements showing significant toxicity. One mussel development test with the measurement showing significant toxicity (Anderson et al., 1998).
<i>Spatial Representation:</i>	Samples were collected concurrently with chemical measurements.
<i>Temporal Representation:</i>	Four different events in 4 different years.
<i>Data Quality Assessment:</i>	BPTCP and DFG QAPP (Stephenson et al., 1994).

Line of Evidence	Remedial Program in Place
<i>Beneficial Use</i>	ES - Estuarine Habitat, RA - Rare & Endangered Species, WE - Wetland Habitat, WI - Wildlife Habitat
<i>Information Used to Assess Water Quality:</i>	The Consolidated Toxic Hot Spots Cleanup Plan describes how the RWQCB will work with the McGrath State Beach Area Trustee Council to address cleanup of this site. While the planning has progressed, no remediation of the site has occurred. No responsible parties have been identified.

Region 4

Water Segment: McGrath Lake

Pollutant: Sediment Toxicity

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.6 of the Listing Policy. Under section 4.1 a single line of evidence is necessary to assess delisting status. One line of evidence is available in the administrative record to assess this pollutant.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. Two of five samples originally exhibited toxicity but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Toxicity

Beneficial Use: ES - Estuarine Habitat, RA - Rare & Endangered Species, WE - Wetland Habitat, WI - Wildlife Habitat

Matrix: Sediment

**Water Quality Objective/
Water Quality Criterion:** Basin Plan: Existing habitats and associated populations of wetlands fauna and flora shall be maintained by:

- Maintaining substrate characteristics necessary to support flora and fauna which would be present naturally,
- Protecting food supplies for fish and wildlife,
- Protecting reproductive and nursery areas, and
- Protecting wildlife corridors.

Evaluation Guideline: BPTCP reference envelope approach used.

<i>Data Used to Assess Water Quality:</i>	Five amphipod toxicity tests with 2 measurements showing significant toxicity. One mussel development test with the measurement showing significant toxicity (Anderson et al., 1998).
<i>Spatial Representation:</i>	Samples were collected concurrently with chemical measurements.
<i>Temporal Representation:</i>	Four different events in 4 different years.
<i>Data Quality Assessment:</i>	BPTCP and DFG QAPP (Stephenson et al., 1994).

Region 4

Water Segment: Piru Creek (from gaging station below Santa Felicia Dam to headwaters)

Pollutant: pH

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.2 of the Listing Policy. Under section 4.2 a single line of evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. Four of 24 samples exceeded the pH water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of 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. Four of 24 samples exceeded the pH water quality objective. At least 26 samples are needed before a pollutant can be considered for removal from the list using the frequencies presented in Table 4.2 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: CO - Cold Freshwater Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WA - Warm Freshwater Habitat, WE - Wetland Habitat, WI - Wildlife Habitat

Matrix: Water

**Water Quality Objective/
Water Quality Criterion:** Basin Plan: The pH of inland surface waters shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharges. Ambient pH levels shall not be changed more than 0.5 units from natural conditions as a result of waste discharge.

Data Used to Assess Water Quality: Twenty-four water samples, 4 samples exceeding (SWRCB, 2003).

Spatial Representation: Samples representative of the Reach.
Temporal Representation: Quarterly sampling events.
Environmental Conditions: Data 2-5 years old, samples collected at site.
Data Quality Assessment: United Water Conservation District.

Region 4

Water Segment: Pole Creek (trib to Santa Clara River Reach 3)

Pollutant: Sulfates

Decision: Do Not Delist

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

One line of evidence is available in the administrative record to assess this pollutant. This line of evidence was probably used to place this water body pollutant combination on the 303(d) list originally. Eleven of the samples exceeded the sulfate water quality objective in this line of evidence but the number of samples is insufficient to make a delisting determination with the confidence and power required by the Listing Policy.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of 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. Eleven of 12 samples exceeded the sulfate water quality objective but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: AG - Agricultural Supply

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: 650 mg/L.

Data Used to Assess Water Quality: Twelve water samples, 11 samples exceeding (SWRCB, 2003).

Spatial Representation: Along creek.
Temporal Representation: Less than quarterly sampling.
Environmental Conditions: Data 2-5 years old, samples collected at site.
Data Quality Assessment: United Water Conservation District.

Region 4

Water Segment: Pole Creek (trib to Santa Clara River Reach 3)

Pollutant: Total Dissolved Solids

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.2 of the Listing Policy. Under section 4.2 a single line of evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. This line of evidence was probably used to place this water body pollutant combination on the 303(d) list originally. Eleven of the samples exceeded the TDS water quality objective in this line of evidence but the number of samples is insufficient to make a delisting determination with the confidence and power required by the Listing Policy.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of 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. Eleven of 12 samples exceeded the sulfate water quality objective but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: AG - Agricultural Supply

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: 1,300 mg/L.

Data Used to Assess Water Quality: Twelve water samples, 11 samples exceeding (SWRCB, 2003).

Spatial Representation: Along creek.
Temporal Representation: Less than quarterly sampling.
Data Quality Assessment: United Water Conservation District.

Region 4

Water Segment: Puddingstone Reservoir

Pollutant: Mercury

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.5 of the Listing Policy. One line of evidence is available in the administrative record to assess this pollutant.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Two of the 2 samples exceeded the OEHHA Screening Value but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

Beneficial Use: CM - Commercial and Sport Fishing (CA)

Matrix: Tissue

*Water Quality Objective/
Water Quality Criterion:* Los Angeles RWQCB Basin Plan: Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels which are harmful to aquatic life or human health.

Evaluation Guideline: OEHHA Screening Value is 0.3 µg/g for mercury.

Data Used to Assess Water Quality: Two out of 2 samples exceeded. Two filet composite samples of largemouth bass were collected in 1992 and 1999. Both samples exceeded the guideline (TSMP, 2002).

Spatial Representation: One station located from the middle cove on the west shore and from the inlet cove on the northeast shore.

Temporal Representation: Samples were collected in 1992 and 1999.

Data Quality Assessment: Toxic Substances Monitoring Program 1992-93 Data Report.
Environmental Chemistry Quality Assurance and Data Report for the
Toxic Substances Monitoring Program, 1996-2000. Department of Fish
and Game

Region 4

Water Segment:	Rio De Santa Clara/Oxnard Drain No. 3
Pollutant:	Chlordane
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.5 of the Listing Policy. One line of evidence is available in the administrative record to assess this pollutant.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">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. Two of the 2 samples exceeded the OEHHA Screening Value but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.
Lines of Evidence:	

Numeric Line of Evidence	Pollutant-Tissue
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA)
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	Los Angeles RWQCB Basin Plan: Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels which are harmful to aquatic life or human health.
<i>Evaluation Guideline:</i>	100 ng/g – NAS Guideline (whole fish)
<i>Data Used to Assess Water Quality:</i>	Two out of 2 samples exceeded. A total of 2 whole fish composite samples of mosquitofish were collected. Both samples were collected in 1997 (TSMP, 2002).

Spatial Representation: One station near Oxnard Drain located downstream of the bridge at Arnold Road.

Temporal Representation: The samples were collected only in 1997.

Data Quality Assessment: Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 1996-2000. Department of Fish and Game.

Region 4

Water Segment: Rio De Santa Clara/Oxnard Drain No. 3

Pollutant: DDT

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.5 of the Listing Policy. One line of evidence is available in the administrative record to assess this pollutant.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Two of the 2 samples exceeded the OEHHA Screening Value but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

Beneficial Use: CM - Commercial and Sport Fishing (CA)

Matrix: Tissue

*Water Quality Objective/
Water Quality Criterion:* Los Angeles RWQCB Basin Plan: Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels which are harmful to aquatic life or human health.

Evaluation Guideline: 1000 ng/g – NAS Guideline (whole fish)

Data Used to Assess Water Quality: Two out of 2 samples exceeded. A total of 2 whole fish composite samples of mosquitofish were collected. Mosquitofish samples were collected in 1997. The guideline was exceeded in both mosquitofish samples (TSMP, 2002).

Spatial Representation: One station near Oxnard Drain located downstream of the bridge at Arnold Road.

Temporal Representation: Samples were collected in 1997.

Data Quality Assessment: Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 1996-2000. Department of Fish and Game

Region 4

Water Segment: Rio De Santa Clara/Oxnard Drain No. 3

Pollutant: Toxaphene

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.5 of the Listing Policy. One line of evidence is available in the administrative record to assess this pollutant.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Two of the 2 samples exceeded the OEHHA Screening Value but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

Beneficial Use: CM - Commercial and Sport Fishing (CA)

Matrix: Tissue

*Water Quality Objective/
Water Quality Criterion:* Los Angeles RWQCB Basin Plan: Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels which are harmful to aquatic life or human health.

Evaluation Guideline: 100 ng/g – NAS Guideline (whole fish)

Data Used to Assess Water Quality: Two out of 2 samples exceeded. A total of 2 whole fish composite samples of mosquitofish were collected. Mosquitofish samples were collected in 1997. The guideline was exceeded in both mosquitofish samples (TSMP, 2002).

Spatial Representation: One station near Oxnard Drain located downstream of the bridge at Arnold Road.

Temporal Representation: Samples were collected in 1997.

Data Quality Assessment: Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 1996-2000. Department of Fish and Game.

Region 4

Water Segment: San Antonio Creek (Tributary to Ventura River Reach 4)

Pollutant: Nitrogen

Decision: Do Not Delist

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

One line of evidence is available in the administrative record to assess this pollutant. This line of evidence was used to place this water body pollutant combination on the 303(d) list originally. Four of the samples exceeded the nitrogen site specific water quality objective in this line of evidence but the number of samples is insufficient to make a delisting determination with the confidence and power required by the Listing Policy.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of 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.
- 1.The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
- 3.Four of 23 samples exceeded the nitrogen site specific water quality objective, but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.
- 4.Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be placed on the section 303(d) list because it cannot be determined if applicable water quality standards are exceeded.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: CO - Cold Freshwater Habitat, SP - Fish Spawning, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: 5 mg/L (as NO₃-N and NO₂-N). Table 3-8 of the Basin Plan.

Data Used to Assess Water Quality: Twenty-three water samples, 4 samples exceeding (SWRCB, 2003).

Spatial Representation: Two sample sites.

Temporal Representation: Winter 1998 - Summer 2000.

Data Quality Assessment: Ojai Valley Wastewater Treatment Plant.

Region 4

Water Segment: San Gabriel River Reach 2 (Firestone to Whittier Narrows Dam)

Pollutant: Fecal Coliform

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.2 of the Listing Policy. Under section 4.2 a single line of evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. Sixteen samples exceeded the fecal coliform water quality objective but the total number of samples taken is insufficient to determine whether the water body pollutant combination can be delisted with the confidence and power required by the Listing Policy.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of 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. Sixteen of 16 samples exceeded the fecal coliform water quality objective. At least 26 samples are needed before a pollutant can be considered for removal from the list using the frequencies presented in Table 4.2 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: MU - Municipal & Domestic, R1 - Water Contact Recreation

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* "In waters designated for contact recreation (REC-1), the fecal coliform concentration shall not exceed a log mean of 200/100 ml"
From the LA Regional Water Quality Control Board's Basin Plan

<i>Data Used to Assess Water Quality:</i>	Sixteen out of 16 samples at this location exceeded the objective for fecal coliform (LACDPW, 2004c).
	Summary of Results for the 2000-2001 Routine Monitoring at the San Gabriel River (Table B-5)
<i>Spatial Representation:</i>	The San Gabriel River Monitoring Station is located at an historic stream gage station (Stream Gage No. F263C-R), below San Gabriel River Parkway in Pico Rivera. At this location the upstream tributary area is 450 square miles. The San Gabriel River, at the gauging station, is a grouted rock-concrete stabilizer along the western levee and a natural section on the eastern side. Flow measurement and water sampling are conducted in the grouted rock area along the western levee of the river. The length of the concrete stabilizer is nearly 70 feet. The San Gabriel River sampling location has been an active stream gauging station since 1968.
<i>Temporal Representation:</i>	Samples taken between 10/28/2000 and 4/30/2003
<i>Environmental Conditions:</i>	Samples taken on 10/10/2002 and 4/30/2003 were 'DRY' samples. All others were 'WET'.
<i>Data Quality Assessment:</i>	Detailed QA/QC contained in this report.

Region 4

Water Segment: San Pedro Bay Near/Off Shore Zones

Pollutant: DDT

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.5 of the Listing Policy. One line of evidence is available in the administrative record to assess this pollutant.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Three of the 4 samples exceeded the OEHHA Screening Value but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

Beneficial Use: CM - Commercial and Sport Fishing (CA), IN - Industrial Service Supply

Matrix: Tissue

*Water Quality Objective/
Water Quality Criterion:* Los Angeles RWQCB Basin Plan: Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels which are harmful to aquatic life or human health.

Evaluation Guideline: OEHHA Screening Value is 100 ng/g for total DDT (Brodberg & Pollock, 1999).

Data Used to Assess Water Quality: Three out of 4 samples exceeded. All 4 samples were filet composites representing the following species: queenfish, spotted turbot, and white croaker. All but one white croaker sample exceeded guideline. This white

croaker had 99.89 ng/g DDT just below the guideline (TSMP, 2002).

Spatial Representation:

One station was sampled: Belmont Pier.

Temporal Representation:

Samples were collected in July and October 1999.

Data Quality Assessment:

CFCP 1998 Year 1 QA Summary – Pesticides and PCBs. California Department of Fish and Game.
CDFG Fish and Wildlife Water Pollution Control Laboratory Data Quality Assurance Report. 1999 Coastal Fish Contamination Program

Region 4

Water Segment: San Pedro Bay Near/Off Shore Zones

Pollutant: Polychlorinated biphenyls

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.5 of the Listing Policy. One line of evidence is available in the administrative record to assess this pollutant.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Four of the 4 samples exceeded the OEHHA Screening Value but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

Beneficial Use: CM - Commercial and Sport Fishing (CA), IN - Industrial Service Supply

Matrix: Tissue

*Water Quality Objective/
Water Quality Criterion:* Los Angeles RWQCB Basin Plan: Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels which are harmful to aquatic life or human health.

Evaluation Guideline: OEHHA Screening Value is 20 ng/g for total PCBs (Brodberg & Pollock, 1999).

Data Used to Assess Water Quality: Four out of 4 samples exceeded. All 4 samples were filet composites representing the following species: queenfish, spotted turbot, and white croaker. All samples exceeded guideline (TSMP, 2002).

Spatial Representation: One station was sampled: Belmont Pier.

Temporal Representation: Samples were collected in July and October 1999.

Data Quality Assessment: CFCP 1998 Year 1 QA Summary – Pesticides and PCBs. California Department of Fish and Game.
CDFG Fish and Wildlife Water Pollution Control Laboratory Data Quality Assurance Report. 1999 Coastal Fish Contamination Program (CFCP Year 2).

Region 4

Water Segment: Santa Clara River Reach 3 (Freeman Diversion to A Street)

Pollutant: Total Dissolved Solids

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.2 of the Listing Policy. Under section 4.2 a single line of evidence is necessary to assess delisting status.

One line of evidence is available in the administrative record to assess this pollutant. A sufficient number of samples exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. Thirty-eight of 189 samples exceeded the TDS water quality objective and this exceeds the allowable frequency listed in Table 4.2 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	AG - Agricultural Supply, GW - Groundwater Recharge
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: 1,300 mg/L.
<i>Data Used to Assess Water Quality:</i>	One hundred and eighty-nine samples, 38 samples exceeding.
<i>Spatial Representation:</i>	Samples representative of Reach.
<i>Temporal Representation:</i>	Quarterly sampling events.
<i>Data Quality Assessment:</i>	POTW, United Water Conservation District, Department of Water Resources.

Region 4

Water Segment:	Santa Monica Bay Offshore/Nearshore
Pollutant:	Polychlorinated biphenyls
Decision:	Do Not Delist
Weight of Evidence:	<p>Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">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. Six of the 7 samples exceeded the water quality objectives but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.
SWRCB Staff Recommendation:	<p>After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.</p>

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Tissue
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA)
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	Los Angeles RWQCB Basin Plan: Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels which are harmful to aquatic life or human health.
<i>Evaluation Guideline:</i>	20 ng/g (OEHHA Screening Value).
<i>Data Used to Assess Water Quality:</i>	Six out of 7 samples exceeded. All 7 samples were filet composites representing the following species: barred surfperch, California corbina, queenfish, walleye surfperch, and white croaker. All but one of two California corbina exceeded guideline. (TSMP, 2002).
<i>Spatial Representation:</i>	Two stations were sampled: Santa Monica Pier and Venice Pier.
<i>Temporal Representation:</i>	Samples were collected in July and November 1999.
<i>Data Quality Assessment:</i>	CFCP 1998 Year 1 QA Summary – Pesticides and PCBs. California Department of Fish and Game. CDFG Fish and Wildlife Water Pollution Control Laboratory Data Quality Assurance Report. 1999 Coastal Fish Contamination Program (CFCP Year 2). California Department of Fish and Game.

Region 4

Water Segment:	Sespe Creek (from 500 ft below confluence with Little Sespe Cr to headwaters)
Pollutant:	Chloride
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.1 of the Listing Policy. Under section 4.1 a single line of evidence is necessary to assess listing status.</p> <p>One line of evidence is available in the administrative record to assess this pollutant. Six samples exceeded the water quality objective but the total number of samples taken is insufficient to determine if standards are met with the sufficient confidence and power required by the Listing Policy.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">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.Six of 16 samples exceeded the water quality objective. At least 28 samples are needed before a pollutant can be considered for removal from the list using the frequencies presented 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 met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	AG - Agricultural Supply, BI - Preserva.of Bio.Hab.of Spec.Signif., CO - Cold Freshwater Habitat, MI - Fish Migration, RA - Rare & Endangered Species, SP - Fish Spawning, WA - Warm Freshwater Habitat, WE - Wetland Habitat, WI - Wildlife Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: 60 mg/L.

Data Used to Assess Water Quality: There were sixteen total water samples, with 6 samples exceeding the objective (SWRCB, 2003).

Spatial Representation: Samples are representative of the Reach.

Temporal Representation: Quarterly sampling events.

Data Quality Assessment: United Water Conservation District methods.

Region 4

Water Segment: Ventura River Estuary

Pollutant: Total Coliform

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.3 of the Listing Policy. Under section 4.3 a single line of evidence is necessary to assess delisting status.

One line of evidence is available in the administrative record to assess this pollutant. A large number of samples exceed Basin Plan and Ocean Plan total coliform water quality objectives.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. Twenty-four of 37 samples exceeded the Basin Plan 1,000/100ml geometric mean limit water quality objective, and 32 of 37 and 37 of 37 samples exceed the median density limit and the 10 percent limit Ocean Plan shellfish harvesting standards respectively, and these exceed the allowable frequency listed in Table 4.2 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: R1 - Water Contact Recreation, SH - Shellfish Harvesting

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Basin Plan: In waters designated for marine water contact recreation (REC-1), the total coliform density shall not exceed the geometric mean limit of 1,000/100 ml.

Ocean Plan: In all waters where shellfish can be harvested for human

consumption (SHELL), the median total coliform concentration throughout the water column shall not exceed 70/100 ml, nor shall more than ten percent of the samples collected exceed 230/100 ml.

Data Used to Assess Water Quality:

Numeric data generated from 37 bacteria samples out of which 24 exceeded the Basin Plan marine waters 1000/100ml geometric mean limit, 32 exceeded the Ocean Plan's shellfish harvesting median density standard of 70/100ml and the 37 exceeded 10 percent limit of 230/100ml (SWRCB, 2003).

Spatial Representation:

One sampling site.

Temporal Representation:

Collected during different seasons and years.

Data Quality Assessment:

Ojai Valley River Volunteer Monitoring Program.

Region 4

Water Segment: Wheeler Canyon/Todd Barranca

Pollutant: Sulfates

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.2 of the Listing Policy. Under section 4.2 a single line of evidence is necessary to assess delisting status.

One line of evidence is available in the administrative record to assess this pollutant. A large number of samples exceed the site specific sulfate water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. Eleven of 12 samples exceeded the sulfate site specific water quality objective. At least 28 samples are needed before a pollutant can be considered for removal from the list using the frequencies presented in Table 4.2 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because applicable water quality standards are exceeded and it cannot be determined if applicable water quality standards are attained because there are an insufficient number of total samples.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	AG - Agricultural Supply
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: 650 mg/L (Table 3-8, water body tributary to Santa Clara River Reach 3 between Freeman Diversion and Fillmore Street A).
<i>Data Used to Assess Water Quality:</i>	There were twelve water samples, with 11 samples exceeding the objective (SWRCB, 2003).

Spatial Representation: Represents creek.
Temporal Representation: Quarterly sampling events.
Data Quality Assessment: United Water Conservation District data quality assessment.

Region 4

Water Segment: Wheeler Canyon/Todd Barranca

Pollutant: Total Dissolved Solids

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.2 of the Listing Policy. Under section 4.2 a single line of evidence is necessary to assess delisting status.

One line of evidence is available in the administrative record to assess this pollutant. A large number of samples exceed the site specific TDS water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. Twelve of 12 samples exceeded the site specific TDS water quality objective. At least 26 samples are needed before a pollutant can be considered for removal from the list using the frequencies presented in Table 4.2 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 met.

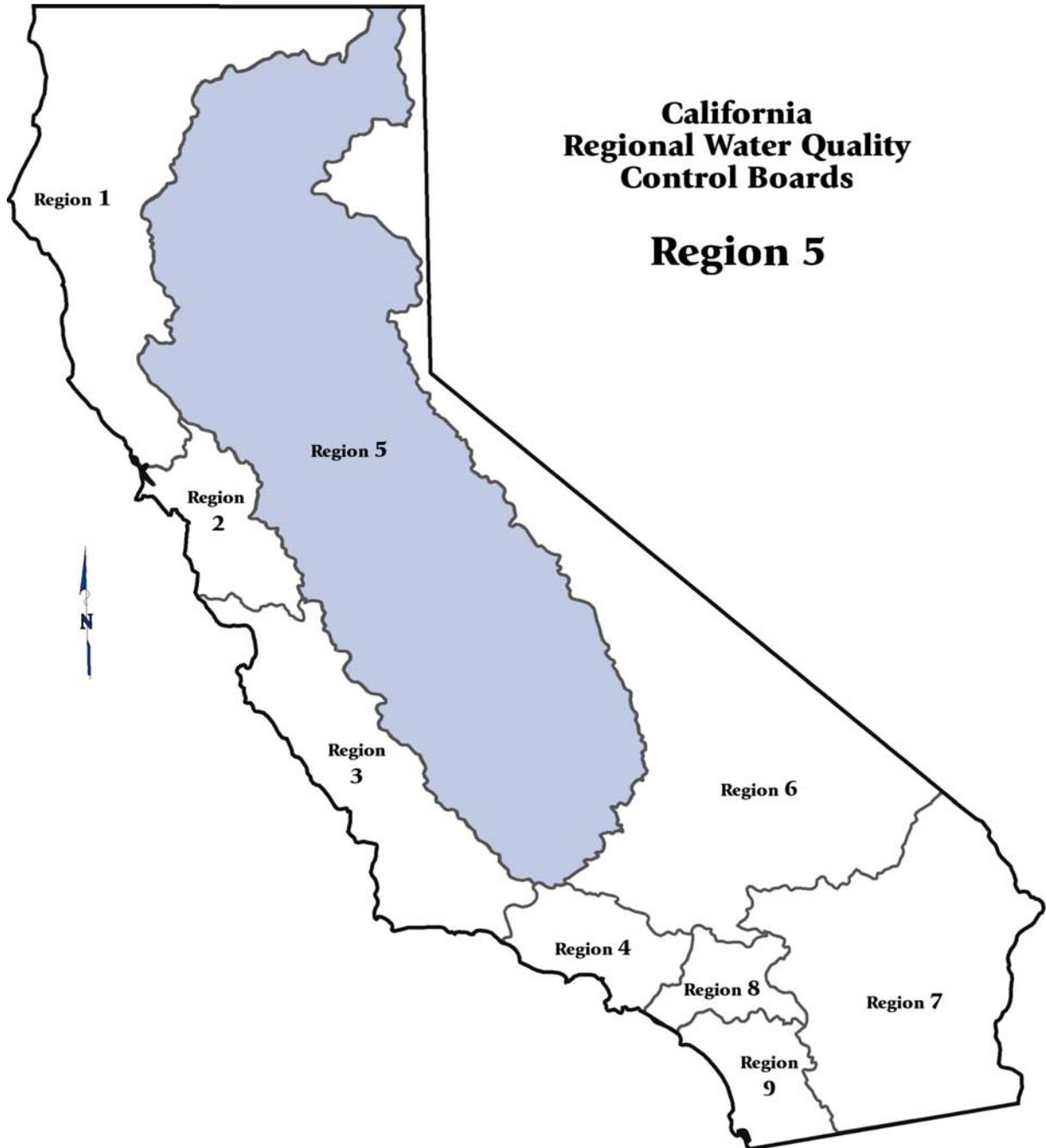
SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and it cannot be determined if applicable water quality standards are attained because there are insufficient numbers of samples.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	AG - Agricultural Supply
<i>Matrix:</i>	-N/A
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: 1,300 mg/L (Table 3-8, water body tributary to Santa Clara River Reach 3 between Freeman Diversion and Fillmore Street A).
<i>Data Used to Assess Water Quality:</i>	There were twelve water samples, with all 12 samples exceeding the objective (SWRCB, 2003).

Spatial Representation: Represents creek.
Temporal Representation: Quarterly sampling events.
Data Quality Assessment: United Water Conservation District
QA/QC Equivalent: United Water Conservation District methods used.

Fact Sheets Supporting “Do Not Delist” Recommendations



September 2006

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New or Revised Fact Sheets

New or Revised Fact Sheets

Region 5

Water Segment:	Harding Drain (Turlock Irrigation District Lateral #5)
Pollutant:	Chlorpyrifos
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for delisting under sections 4.6 and 4.9 of the Listing Policy. Under section 4.6, a single line of evidence is necessary to assess listing status while under section 4.9, a minimum of two lines of evidence are needed to assess listing status.</p> <p>Two lines of evidence are available in the administrative record to assess this pollutant. Based on the readily available data, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list.</p> <p>A UAA has not been submitted to USEPA.</p> <p>This conclusion is based on the staff findings that: .</p> <ol style="list-style-type: none"> 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. 4. Thirty-nine out of 405 samples exceeded the Water Quality Criteria for chlorpyrifos, and these exceed the allowable frequency listed in Table 4.1 of the Listing Policy. 5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are not met. <p>After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because water quality standards are exceeded.</p>
SWRCB Staff Recommendation:	<p>After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.</p>

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	AG - Agricultural Supply, CO - Cold Freshwater Habitat, MI - Fish Migration, PR - Industrial Process Supply, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SP - Fish Spawning, WA - Warm Freshwater Habitat, WI - Wildlife Habitat
<i>Matrix:</i>	Water

<i>Water Quality Objective/ Water Quality Criterion:</i>	The narrative pesticide objectives state, in part: -No individual pesticides or combination of pesticides shall be present in concentrations that adversely affect beneficial uses, -Discharges shall not result in pesticide concentrations in bottom sediments or aquatic life that adversely affect beneficial uses, Pesticide concentrations shall not exceed those allowable by applicable antidegradation policies, and waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life.
<i>Evaluation Guideline:</i>	Department of Fish and Game guideline of 0.014 µg/L (Siepmann and Finlayson, 2000).
<i>Data Used to Assess Water Quality:</i>	Thirty-nine out of 405 samples exceeded the guideline (Turlock Irrigation District, 2006).
<i>Spatial Representation:</i>	Samples were collected at three sites: CMD32Hodges, HD1, and HD2.
<i>Temporal Representation:</i>	Samples were collected from 9/12/2001-8/25/2004.
<i>Data Quality Assessment:</i>	TID Sampling and Analysis Plan

<i>Line of Evidence</i>	Testimonial Evidence
<i>Beneficial Use</i>	AG - Agricultural Supply, CO - Cold Freshwater Habitat, MI - Fish Migration, PR - Industrial Process Supply, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SP - Fish Spawning, WA - Warm Freshwater Habitat, WI - Wildlife Habitat
<i>Data Used to Assess Water Quality:</i>	Letter submitted on behalf of Turlock Irrigation District requesting Harding Drain to be delisted for chlorpyrifos due to a UAA that was completed.

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Original Fact Sheets

Fact Sheets Not Changed
from September 2005 Version

Region 5

Water Segment:	American River, Lower (Nimbus Dam to confluence with Sacramento River)
Pollutant:	Mercury
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.4 of the Listing Policy. Under section 4.4 two lines of evidence are necessary to assess listing status.</p> <p>Two lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.4, a health advisory has been issued by OEHHA for this water. Tissue samples from multiple species were collected, were considered representative and determined to exceed OEHHA criteria.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">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. A health advisory is available and fish in the water exceed OEHHA guidelines. The samples had sufficient sample size (more than 9 fish per species) of legal/edible size fish to be considered representative of mercury levels in those species, thereby allowing adequate estimation of the health risks associated with their consumption.4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Health Advisories
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA)
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	Fish consumption health advisory issued by OEHHA in September 2004.
<i>Evaluation Guideline:</i>	OEHHA guidance tissue levels for mercury (Brodberg & Pollock, 1999).

Data Used to Assess Water Quality:

USGS and UCD collected a total of 11 fish species by electrofishing equipment or gill nets in August 2000, from September to October 2002, and in July 2003, at several sites in Lake Natoma, including the vicinity of Negro Bar and Mississippi Bar, the mouths of Willow Creek and Alder Creek, Natomas Slough, and near Nimbus Dam (Saiki et al., 2004; Alpers et al., 2004; Klasing, S. and R. Brodberg, 2004). Species collected included largemouth bass, smallmouth bass, spotted bass, channel catfish, white catfish, brown bullhead, black bullhead, redear sunfish, green sunfish, bluegill, and rainbow trout. Fish were measured and weighed; boneless and skinless individual fillets were submitted to University of California - Davis (the August 2000, and July 2003, samples) or the USGS Columbia Environmental Research Center (CERC) in Columbia, Missouri, (the September to October, 2002, samples) for total mercury analyses by atomic absorption spectrophotometry using either a Perkin Elmer Flow Injection Mercury System or a Milestone DMA-80 analyzer. Under TSMP, the California Department of Fish and Game (CDFG) collected largemouth bass (n= 15 in three composites), pike minnow (n= 16 in three composites), and sucker samples (n = 35 in nine composites) by electrofishing equipment or gill nets in 1979-1983, 1987, and 1990-1993 near the Highway 160 and Watt Avenue bridges on the lower American River. Fish were measured and weighed and made into composites using skin-off muscle fillet. Composite samples were homogenized at the CDFG Water Pollution Control Laboratory and analyzed for total mercury by cold vapor atomic absorption spectrophotometry (TSMP, 2002). For the Sacramento River Watershed Program, largemouth bass (n = 26 in seven composites), striped bass (n = 1), pike minnow (n = 25 in five composites), sucker (n = 35 in seven composites), white catfish (n = 9 in two composites), and redear sunfish (n = 10 in two composites) were collected by electroshock, nets, or hook and line from 1997 to 2002 at known fishing locations on the lower American River from Sunrise Avenue to Discovery Park. Fish were measured and weighed and made into composites using skin-off muscle fillet. Composite samples were homogenized at Moss Landing Marine Laboratory and analyzed for total mercury using a Perkin Elmer Flow Injection Mercury System.

Spatial Representation:

Sample locations included Lake Natoma at Willow Creek, Mississippi Bar, Nimbus Dam, Alder Creek, Natomas Slough and Negro Bar; on the American River samples were taken at Discovery Park, d/s Watt Ave. bridge, and at Sunrise.

Temporal Representation:

Collection dates for USGS and UCD sampling data from Lake Natoma ranged from Aug. 2000, Sept. and Oct. 2002, and July 2003. SRWP data was collected in 1997, 1998, 1999, 2000, and 2001. Additionally, composite fish samples were collected as part of TSMP and SRWP, periodically from 1978 until 2002, from sections of the lower American River. Only mercury data were considered for this advisory.

Environmental Conditions:

Of the samples collected at Lake Natoma and the lower American River, largemouth bass (n = 64), bluegill (n = 78), pike minnow (n = 41), sucker (n = 70), channel catfish (n = 11), white catfish (n = 10) and redear sunfish (n = 20) had sufficient sample size (≥ 9 fish per species) of legal/edible size fish to be considered representative of mercury levels in those species, thereby allowing adequate estimation of the health risks associated with their consumption.

<i>Line of Evidence</i>	Pollutant-Tissue
<i>Beneficial Use</i>	CM - Commercial and Sport Fishing (CA)
<i>Information Used to Assess Water Quality:</i>	Supporting documentation - Fish consumption study documenting overlaps of fishing intensities with mercury concentrations in fish. Concentrations >0.3 ppm have been measured in largemouth bass, Smallmouth and white bass, Sacramento pike minnow, Suckers sampled from the following American River.

Region 5

Water Segment:	Bear River, Lower (below Camp Far West Reservoir)
Pollutant:	Diazinon
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.1 of the Listing Policy. Under section 4.1 a single line of evidence is necessary to assess listing status.</p> <p>One line of evidence is available in the administrative record to assess this pollutant. Some of the data was questionable due to a possible bias (higher diazinon conc) from the ELISA method and as such could not be used in this assessment. Therefore, the data can not be used to make a delisting decision.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data used does not satisfy 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. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.
Lines of Evidence:	

<i>Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use</i>	CO - Cold Freshwater Habitat
<i>Non-Numeric Objective:</i>	No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses. Discharges shall not result in pesticide concentrations in bottom sediments or aquatic life that adversely affect beneficial uses. Total identifiable persistent chlorinated hydrocarbon pesticides shall not be present in the water column at concentrations detectable within the accuracy of analytical methods approved by the Environmental Protection Agency or the executive Officer. Waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of pesticides in excess of the Maximum Contaminant Levels set forth in California Code of

Regulations, Title 22, Division 4, Chapter 15.

Evaluation Guideline:

CDFG Hazard Assessment Criteria - 0.10 µg/L 4-day average and 0.16 µg/L 1-hour average (Siepman & Finlayson, 2000; Finlayson, 2004).

Data Used to Assess Water Quality:

None of the concentrations from the 30 samples from this site exceeded the CDFG criteria but some of the data was questionable due to a possible bias (higher diazinon conc) from the ELISA method. Data was obtained from the U.S. Geological Survey Water-Resources Investigations Report 02-4101. Samples were analyzed using GC/ECD/TSD and ELISA.

Spatial Representation:

Samples were taken on the Bear River at Berry Road.

Temporal Representation:

Samples were collected in January/February 2000, 2001.

Region 5

Water Segment: Bear River, Upper

Pollutant: Mercury

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.1 of the Listing Policy. Under sections 4.1 and 4.5 single lines of evidence are necessary to assess listing status.

Three lines of evidence are available in the administrative record to assess this pollutant. For water, none of the samples exceed the water quality criterion or MCL. All samples exceed the guideline for tissue.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of 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. For tissue, all the samples exceed the guideline. For water, none of 25 samples exceeded the USEPA CTR criterion. None of the 25 samples exceeded the Drinking Water MCL.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

Beneficial Use: CO - Cold Freshwater Habitat, MU - Municipal & Domestic

Matrix: Tissue

*Water Quality Objective/
Water Quality Criterion:* All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life.

Evaluation Guideline: OEHHA guideline used (0.3 mg/kg) (Brodberg and Pollock, 1999).

Data Used to Assess Water Quality: Three fish were collected. Tissue concentrations ranged from 0.38 to 0.40 ppm. All exceeded the objective (SWRCB, 2003).

Spatial Representation: All the fish were collected at Dog Bar Road.
Temporal Representation: All fish were collected on September 23, 1999.
Data Quality Assessment: All samples were collected using USGS methods and quality control.

Numeric Line of Evidence -N/A
Beneficial Use: CO - Cold Freshwater Habitat, MU - Municipal & Domestic
Matrix: Water
*Water Quality Objective/
Water Quality Criterion:* Drinking Water MCL Title 22 Primary (0.002 mg/L).
*Data Used to Assess Water
Quality:* None of the 25 samples from Bear Creek exceeded the Drinking Water MCL value (USGS, 2005).

Spatial Representation: Twenty-five samples were taken at each of the following locations on the Bear River: below Rollins Reservoir; below Wolf Creek; below Steep Hollow Creek.
Temporal Representation: Samples were taken monthly beginning in August 2000 at Wolf Creek; in July 2001 below Rollins Reservoir and below Steep Hollow Creek and ending June 2003.
Data Quality Assessment: Data from USGS reports are considered of adequate quality per section 6.1.4 of the Policy.

Numeric Line of Evidence Pollutant-Water
Beneficial Use: CO - Cold Freshwater Habitat, MU - Municipal & Domestic
Matrix: Water
*Water Quality Objective/
Water Quality Criterion:* CTR value: 50 ng/L.
*Data Used to Assess Water
Quality:* None of the 25 samples exceeded the CTR acute and chronic values (USGS 2005).
Spatial Representation: Twenty-five samples were taken at each of the following locations on the Bear River: below Rollins Reservoir; below Wolf Creek; below Steep Hollow Creek.
Temporal Representation: Samples were taken monthly beginning in August 2000 at Wolf Creek; beginning in July 2001 below Rollins Reservoir and below Steep Hollow Creek and ending June 2003.
Data Quality Assessment: Data from USGS reports are considered of adequate quality per section 6.1.4 of the Policy.

Region 5

Water Segment: Butte Slough

Pollutant: Diazinon

Decision: Do Not Delist

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

One line of evidence is available in the administrative record to assess this pollutant. Several of the samples exceed the water quality objective but some of the data was questionable due to a possible bias (higher diazinon conc) from the ELISA method and as such could not be used in this assessment. Out of 91 samples, 15 were considered to be "questionable". Of the 15 "questionable" samples, none were in exceedance and these were not used when assessing this water body for this pollutant.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of 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. Twenty of the 76 samples exceeded the CDFG Hazard Assessment Criteria, and this exceeds the allowable frequency presented in Table 4.1 of the Listing Policy. Additionally, when the chronic criteria could be applied, 4 out of 12 data set averages (4-day) exceeded the chronic criteria.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

**SWRCB Staff
Recommendation:**

After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Line of Evidence	Pollutant-Water
<i>Beneficial Use</i>	CO - Cold Freshwater Habitat, MI - Fish Migration, R1 - Water Contact Recreation, SP - Fish Spawning, WA - Warm Freshwater Habitat, WI - Wildlife Habitat
<i>Non-Numeric Objective:</i>	No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses. Discharges shall not result in pesticide concentrations in bottom sediments or aquatic life that adversely affect beneficial uses. Total identifiable persistent chlorinated hydrocarbon pesticides shall not be present in the water column at concentrations detectable within the accuracy of analytical methods approved by the Environmental Protection Agency or the executive Officer. Waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of pesticides in excess of the Maximum Contaminant Levels set forth in California Code of Regulations, Title 22, Division 4, Chapter 15.
<i>Evaluation Guideline:</i>	CDFG Hazard Assessment Criteria - 0.16 µg/L 1-hour average (acute), 0.10 µg/L 4-day average (chronic) (Siepman & Finlayson, 2000; Finlayson, 2004).
<i>Data Used to Assess Water Quality:</i>	There were 91 samples taken, 20 were in exceedance. All 20 exceedances were from the 1994 data. Some of the more recent data was "questionable" due to a possible bias (higher diazinon conc) from the ELISA method and as such could not be used in this assessment. When the chronic criteria could be applied, 4 out of 12 data set averages (4-day) exceeded the chronic criteria (Dileanis, 2002, Dileanis, 2002a, Dileanis, 2003b, Holmes et al., 2000).
<i>Spatial Representation:</i>	Samples were taken in Butte Slough at Lower Pass Road, Pass Road and Mawson Bridge near Colusa.
<i>Temporal Representation:</i>	Samples were collected in 1994 and from 2000 to 2002. There were no samples taken between 1994 and 2000.

Region 5

Water Segment: Colusa Basin Drain

Pollutant: Diazinon

Decision: Do Not Delist

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

Three lines of evidence are available in the administrative record to assess this pollutant. Samples taken as late as February 2004 exceeded the CDFG criteria.

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

This conclusion is based on the staff findings that:

1. The CDFG criterion used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Thirteen of 129 samples exceeded the CDFG criterion, and these exceed the allowable frequency listed in Table 4.1 of the Listing Policy. Additionally, when the chronic criteria could be applied, 2 out of 9 data set averages (4-day) exceeded the chronic criteria.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: CO - Cold Freshwater Habitat, WA - Warm Freshwater Habitat

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses. Discharges shall not result in pesticide concentrations in bottom sediments or aquatic life that

adversely affect beneficial uses. Total identifiable persistent chlorinated hydrocarbon pesticides shall not be present in the water column at concentrations detectable within the accuracy of analytical methods approved by the Environmental Protection Agency or the executive Officer. Waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of pesticides in excess of the Maximum Contaminant Levels set forth in California Code of Regulations, Title 22, Division 4, Chapter 15.

<i>Evaluation Guideline:</i>	CDFG Hazard Assessment Criterion - 0.16 µg/L 1-hour average (acute), 0.10 µg/L 4-day average (chronic) (Siepman & Finlayson, 2000; Finlayson, 2004).
<i>Data Used to Assess Water Quality:</i>	Two of 14 samples exceeded the CDFG acute criteria. None of 8 samples exceeded the chronic criteria (Calanchini et al., 2004).
<i>Spatial Representation:</i>	Samples taken at Colusa Basin Drain near Knight's Landing.
<i>Temporal Representation:</i>	Two storm events were sampled for the 2004 TMDL project in the Sacramento River Basin. The first storm event (Storm 1) was the period 28 January to 6 February 2004. The second storm event (Storm 2) was the period 15-23 February, 2004. For storm 1 sampling was conducted from 28 January to 3 February at most sites, and as late as 6 February at the Tower Bridge at Sacramento site. For storm 2 the sampling period began on 16 February and extended until 22 February.
<i>Data Quality Assessment:</i>	Data from CDFA laboratories are considered of adequate quality.

Line of Evidence	Pollutant-Water
<i>Beneficial Use</i>	CO - Cold Freshwater Habitat, WA - Warm Freshwater Habitat
<i>Non-Numeric Objective:</i>	No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses. Discharges shall not result in pesticide concentrations in bottom sediments or aquatic life that adversely affect beneficial uses. Total identifiable persistent chlorinated hydrocarbon pesticides shall not be present in the water column at concentrations detectable within the accuracy of analytical methods approved by the Environmental Protection Agency or the executive Officer. Waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of pesticides in excess of the Maximum Contaminant Levels set forth in California Code of Regulations, Title 22, Division 4, Chapter 15.
<i>Evaluation Guideline:</i>	CDFG Hazard Assessment Criterion: 0.16 µg/L 1-hour average (acute), 0.10 µg/L 4-day average (Siepman & Finlayson, 2002).
<i>Data Used to Assess Water Quality:</i>	Data analysis consisted of ELISA and GC/ECD/TSD. Nine samples were considered of "questionable" quality due to a possible bias (higher diazinon conc) from the ELISA method. Data from 1996-98 was from the NWIS Web data for the nation. Therefore, these samples were not included as part of this assessment. Of the remaining 115 samples, 11 exceeded the acute criteria. When the chronic criteria could be applied, 2 out of 9 data set averages (4-day) exceeded the chronic criteria (Dileanis et al., 2002).
<i>Spatial Representation:</i>	Samples taken at Colusa Basin Drain at Road 99E near Knights Landing and Clarks Ditch.

Temporal Representation:

Samples taken in 2000. Additional samples taken from 1996-1998. Samples from 1999-2003 resulted in non-detects based on EPA 8141A analysis methodology. Samples in 1994 taken in Feb. from Clarks Ditch, trib. to Colusa Basin Drain.

Region 5

Water Segment:	Harding Drain (Turlock Irrigation District Lateral #5)
Pollutant:	Unknown Toxicity
Decision:	Do Not Delist
Weight of Evidence:	The data and information in the administrative record does not support this change. A UAA has not been approved by USEPA.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Line of Evidence	Testimonial Evidence
<i>Beneficial Use</i>	AG - Agricultural Supply, CO - Cold Freshwater Habitat, MI - Fish Migration, PR - Industrial Process Supply, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SP - Fish Spawning, WA - Warm Freshwater Habitat, WI - Wildlife Habitat
<i>Data Used to Assess Water Quality:</i>	Letter submitted on behalf of Turlock Irrigation District requesting Harding Drain to be delisted for unknown toxicity due to a UAA that was completed.

Region 5

Water Segment: Jack Slough

Pollutant: Diazinon

Decision: Do Not Delist

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

One line of evidence is available in the administrative record to assess this pollutant. All samples exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. There were 24 out of 54 samples that exceeded the CDFG Hazard Assessment Criteria and this exceeds the allowable frequency listed in Table 4.1 of the Listing Policy. Additionally, when the chronic criteria could be applied, 6 out of 10 data set averages (4-day) exceeded the chronic criteria.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Line of Evidence Pollutant-Water

Beneficial Use AG - Agricultural Supply, WA - Warm Freshwater Habitat

Non-Numeric Objective: No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses. Discharges shall not result in pesticide concentrations in bottom sediments or aquatic life that adversely affect beneficial uses. Total identifiable persistent chlorinated hydrocarbon pesticides shall not be present in the water column at concentrations detectable within the accuracy of analytical methods approved by the Environmental Protection Agency or the executive Officer. Waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of pesticides in excess of the

Maximum Contaminant Levels set forth in California Code of Regulations, Title 22, Division 4, Chapter 15.

- Evaluation Guideline:* CDFG Hazard Assessment Criteria 0.16 µg/L 1-hour average (acute), 0.10 µg/L 4-day average (chronic) (Siepman & Finlayson, 2000; Finlayson, 2004).
- Data Used to Assess Water Quality:* There were 59 samples total taken. Of these, 16 were considered to be of "questionable" quality and were not used in this assessment. Of the remaining 43 samples, 20 exceeded the acute diazinon criteria (Dileanis et al., Deileanis, 2003b, Holmes et al., 2000).
- Spatial Representation:* Samples were collected in Marysville and at Doc Adams Road.
- Temporal Representation:* Samples were taken late January/February during the years 1994, 2000, 2001 and 2002.
-

Region 5

Water Segment: Orestimba Creek (above Kilburn Road)

Pollutant: Chlorpyrifos

Decision: Do Not Delist

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

One line of evidence is available in the administrative record to assess this pollutant. One of the samples exceeded the pesticide water quality objective but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of 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. One of 14 samples exceeded the CDFG Hazard Assessment Criteria. At least 28 samples are needed before a pollutant can be considered for removal from the list using the frequencies presented 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: AG - Agricultural Supply, CO - Cold Freshwater Habitat, MI - Fish Migration, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix: Water

**Water Quality Objective/
Water Quality Criterion:** Pesticide concentrations shall not exceed those allowable by applicable antidegradation policies (see State Water Resources Control Board Resolution No. 68-16 and 40 CFR section 131.12).

No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses. Discharges shall not result in pesticide concentrations in bottom sediments or aquatic life that adversely affect beneficial uses. Total identifiable persistent chlorinated hydrocarbon pesticides shall not be present in the water column at concentrations detectable within the accuracy of analytical methods approved by the Environmental Protection Agency or the executive Officer. Pesticide concentrations shall not exceed the lowest levels technically and economically achievable. Waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of pesticides in excess of the Maximum Contaminant Levels set forth in California Code of Regulations, Title 22, Division 4, Chapter 15.

<i>Evaluation Guideline:</i>	CDFG Hazard Assessment Criteria - 14 ng/L 4-day average and 25 ng/L 1-hour average.
<i>Data Used to Assess Water Quality:</i>	Chlorpyrifos was detected at concentrations exceeding toxicity benchmarks. Chlorpyrifos was detected in one sample at 0.0705 µg/L, and found at trace concentrations in one additional sample. The detection exceeds both the acute and chronic CDFG WQC (Starner et al., 2003).
<i>Spatial Representation:</i>	Samples were taken on Orestimba Creek at River Road.
<i>Temporal Representation:</i>	Sampling began on July 2, 2002, and continued throughout the summer until September 30, 2002. Each site was sampled once per week.
<i>Environmental Conditions:</i>	At each sampling event, temperature, dissolved oxygen (DO), pH, and electrical conductivity (EC) were measured in situ at each sampling site. DO, EC and temperature were measured. The pH at Orestimba Creek ranged from 7.1 to 7.8. Measured water temperature ranged from 16 to 25.4 °C. DO and EC had ranges of 6.21 to 8.28 mg/L and 641 to 887 µS/cm, respectively.
<i>Data Quality Assessment:</i>	Quality Control (QC) for the chemical analysis portion of this study was conducted in accordance with Standard Operating Procedure QAQC001.00 (Segawa, 1995).

Region 5

Water Segment: Orestimba Creek (above Kilburn Road)

Pollutant: Diazinon

Decision: Do Not Delist

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

One line of evidence is available in the administrative record to assess this pollutant. One of the samples exceeded the water quality objective but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of 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. One of 14 samples exceeded the pesticide water quality objective. At least 28 samples are needed before a pollutant can be considered for removal from the list using the frequencies presented 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: AG - Agricultural Supply, CO - Cold Freshwater Habitat, MI - Fish Migration, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* Pesticide concentrations shall not exceed those allowable by applicable antidegradation policies (see State Water Resources Control Board Resolution No. 68-16 and 40 CFC section 131.12).

No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses. Discharges shall not result in pesticide concentrations in bottom sediments or aquatic life that adversely affect beneficial uses. Total identifiable persistent chlorinated hydrocarbon pesticides shall not be present in the water column at concentrations detectable within the accuracy of analytical methods approved by the Environmental Protection Agency or the executive Officer. Pesticide concentrations shall not exceed the lowest levels technically and economically achievable. Waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of pesticides in excess of the Maximum Contaminant Levels set forth in California Code of Regulations, Title 22, Division 4, Chapter 15.

<i>Evaluation Guideline:</i>	CDFG Hazard Assessment Criteria - 0.10 µg/L 4-day average and 0.16 µg/L 1-hour average. (Siepman & Finlayson, 2000; Finlayson, 2004).
<i>Data Used to Assess Water Quality:</i>	Diazinon was detected at concentrations exceeding toxicity benchmarks. Of the 14 samples collected at Orestimba Creek, diazinon was detected three times (21% detection frequency), with concentrations of 0.043, 0.046, and 0.276 µg/L. The two lowest detected concentrations were below the CDFG chronic WQC of 0.10 µg/L. The 0.276 µg/L detection exceeded both the chronic and the acute WQC. The three samples with quantifiable diazinon detections were taken from consecutive sampling events at Orestimba Creek (8/5, 8/12 - 10 - and 8/19, 2002). (Starner et al., 2003).
<i>Spatial Representation:</i>	Samples were taken on Orestimba Creek at River Road.
<i>Temporal Representation:</i>	Sampling began on July 2, 2002, and continued throughout the summer until September 30, 2002. Each site was sampled once per week.
<i>Environmental Conditions:</i>	At each sampling event, temperature, dissolved oxygen (DO), pH, and electrical conductivity (EC) were measured in situ at each sampling site. DO, EC and temperature were measured. The pH at Orestimba Creek ranged from 7.1 to 7.8. Measured water temperature ranged from 16 to 25.4 °C. DO and EC had ranges of 6.21 to 8.28 mg/L and 641 to 887 µS/cm, respectively.
<i>Data Quality Assessment:</i>	Quality Control (QC) for the chemical analysis portion of this study was conducted in accordance with Standard Operating Procedure QAQC001.00 (Segawa, 1995).

Region 5

Water Segment:	Salt Slough (upstream from confluence with San Joaquin River)
Pollutant:	Chlorpyrifos
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.1 of the Listing Policy. Under section 4.1 a single line of evidence is necessary to assess listing status.</p> <p>One line of evidence is available in the administrative record to assess this pollutant. One sample exceeds the water quality objective but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">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. One of 14 samples exceeded both the CDFG chronic and CDFG acute WQC. At least 28 samples are needed before a pollutant can be considered for removal from the list using the frequencies presented 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 met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.
Lines of Evidence:	

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	AG - Agricultural Supply, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SP - Fish Spawning, WA - Warm Freshwater Habitat, WI - Wildlife Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Pesticide concentrations shall not exceed those allowable by applicable antidegradation policies (see State Water Resources Control Board Resolution No. 68-16 and 40 C.F.R. Section 131.12).

No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses. Discharges shall not result in pesticide concentrations in bottom sediments or aquatic life that adversely affect beneficial uses. Total identifiable persistent chlorinated hydrocarbon pesticides shall not be present in the water column at concentrations detectable within the accuracy of analytical methods approved by the Environmental Protection Agency or the executive Officer. Pesticide concentrations shall not exceed the lowest levels technically and economically achievable. Waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of pesticides in excess of the Maximum Contaminant Levels set forth in California Code of Regulations, Title 22, Division 4, Chapter 15.

<i>Evaluation Guideline:</i>	CDFG Hazard Assessment Criteria - 14 ng/L 4-day average and 25 ng/L 1-hour average.
<i>Data Used to Assess Water Quality:</i>	The single chlorpyrifos detection of 0.046 µg/L at Salt Slough exceeded both the CDFG chronic and CDFG acute WQC of 0.014 and 0.02 µg/L. Chlorpyrifos was also found at trace concentrations in two additional samples (Starner et al., 2003).
<i>Spatial Representation:</i>	Samples for Salt Slough were taken at Highway 165; there were 14 separate sampling events.
<i>Temporal Representation:</i>	Sampling began on July 2, 2002, and continued throughout the summer until September 30, 2002. Each site was sampled once per week.
<i>Environmental Conditions:</i>	At each sampling event, temperature, dissolved oxygen (DO), pH, and electrical conductivity (EC) were measured in situ at each sampling site. DO, EC and temperature were measured. The pH at Salt Slough ranged from 6.49 to 7.66. Measured water temperature ranged from 18.9 to 26.9 °C. DO and EC had ranges of 5.14 to 7.37 mg/L and 877 to 1188 µS/cm, respectively.
<i>Data Quality Assessment:</i>	Quality Control (QC) for the chemical analysis portion of this study was conducted in accordance with Standard Operating Procedure QAQC001.00 (Segawa, 1995).

Region 5

Water Segment:	Salt Slough (upstream from confluence with San Joaquin River)
Pollutant:	Diazinon
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.1 of the Listing Policy. Under section 4.1 a single line of evidence is necessary to assess listing status.</p> <p>One line of evidence is available in the administrative record to assess this pollutant. A second line of evidence represented mapping changes requested by the Regional Board and accepted by the SWRCB. None of the samples exceed the water quality objective but trace concentrations were present in two samples. The number of samples is insufficient to determine with the confidence and power required by the Listing Policy.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">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 the 14 samples exceeded the pesticide water quality objective. At least 28 samples are needed before a pollutant can be considered for removal from the list using the frequencies presented 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 met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	AG - Agricultural Supply, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SP - Fish Spawning, WA - Warm Freshwater Habitat, WI - Wildlife Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Pesticide concentrations shall not exceed those allowable by applicable antidegradation policies (see State Water Resources Control Board

Resolution No. 68-16 and 40 CFR section 131.12).

No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses. Discharges shall not result in pesticide concentrations in bottom sediments or aquatic life that adversely affect beneficial uses. Total identifiable persistent chlorinated hydrocarbon pesticides shall not be present in the water column at concentrations detectable within the accuracy of analytical methods approved by the Environmental Protection Agency or the executive Officer. Pesticide concentrations shall not exceed the lowest levels technically and economically achievable. Waters designated for use as domestic or municipal supply (MUN) shall not contain concentrations of pesticides in excess of the Maximum Contaminant Levels set forth in California Code of Regulations, Title 22, Division 4, Chapter 15.

<i>Evaluation Guideline:</i>	CDFG Hazard Assessment Criteria - 0.10 µg/L 4-day average and 0.16 µg/L 1-hour average (Siepman & Finlayson, 2000; Finlayson, 2004).
<i>Data Used to Assess Water Quality:</i>	Diazinon was not detected above the WQO at Salt Slough, but was present at trace concentrations in two samples (Starner et al., 2003).
<i>Spatial Representation:</i>	Samples for Salt Slough were taken at Highway 165; there were 14 separate sampling events.
<i>Temporal Representation:</i>	Sampling began on July 2, 2002, and continued throughout the summer until September 30, 2002. Each site was sampled once per week.
<i>Environmental Conditions:</i>	At each sampling event, temperature, dissolved oxygen (DO), pH, and electrical conductivity (EC) were measured in situ at each sampling site. DO, EC and temperature were measured. The pH at Salt Slough ranged from 6.49 to 7.66. Measured water temperature ranged from 18.9 to 26.9 °C. DO and EC had ranges of 5.14 to 7.37 mg/L and 877 to 1188 µS/cm, respectively.
<i>Data Quality Assessment:</i>	Quality Control (QC) for the chemical analysis portion of this study was conducted in accordance with Standard Operating Procedure QAQC001.00 (Segawa, 1995).

<i>Line of Evidence</i>	-N/A
<i>Beneficial Use</i>	WA - Warm Freshwater Habitat
<i>Information Used to Assess Water Quality:</i>	The total size and size affected were reassessed by SWRCB staff and RWQCB staff, subsequent to the RWQCB's first change recommendation. This water body has been remapped and the revised extent impacted is 17 miles. The new extent is calculated by the Geospatial Water Body System (GeoWBS), using staff's best estimate of the extent to which water quality standards are not met.

Region 5

Water Segment:	San Joaquin River (Stanislaus River to Delta Boundary)
Pollutant:	DDT
Decision:	Do Not Delist
Weight of Evidence:	<p>This pollutant is being considered for removal from the section 303(d) list under section 4.5 of the Listing Policy. One line of evidence is available in the administrative record to assess this pollutant.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">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. Two of the 3 samples exceeded the OEHHA Screening Value and this does not exceed the allowable frequency listed in Table 4.1 of the Listing Policy and there are not enough samples to support delisting.4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should no be removed from the section 303(d) list because applicable water quality standards are exceeded.

Lines of Evidence:

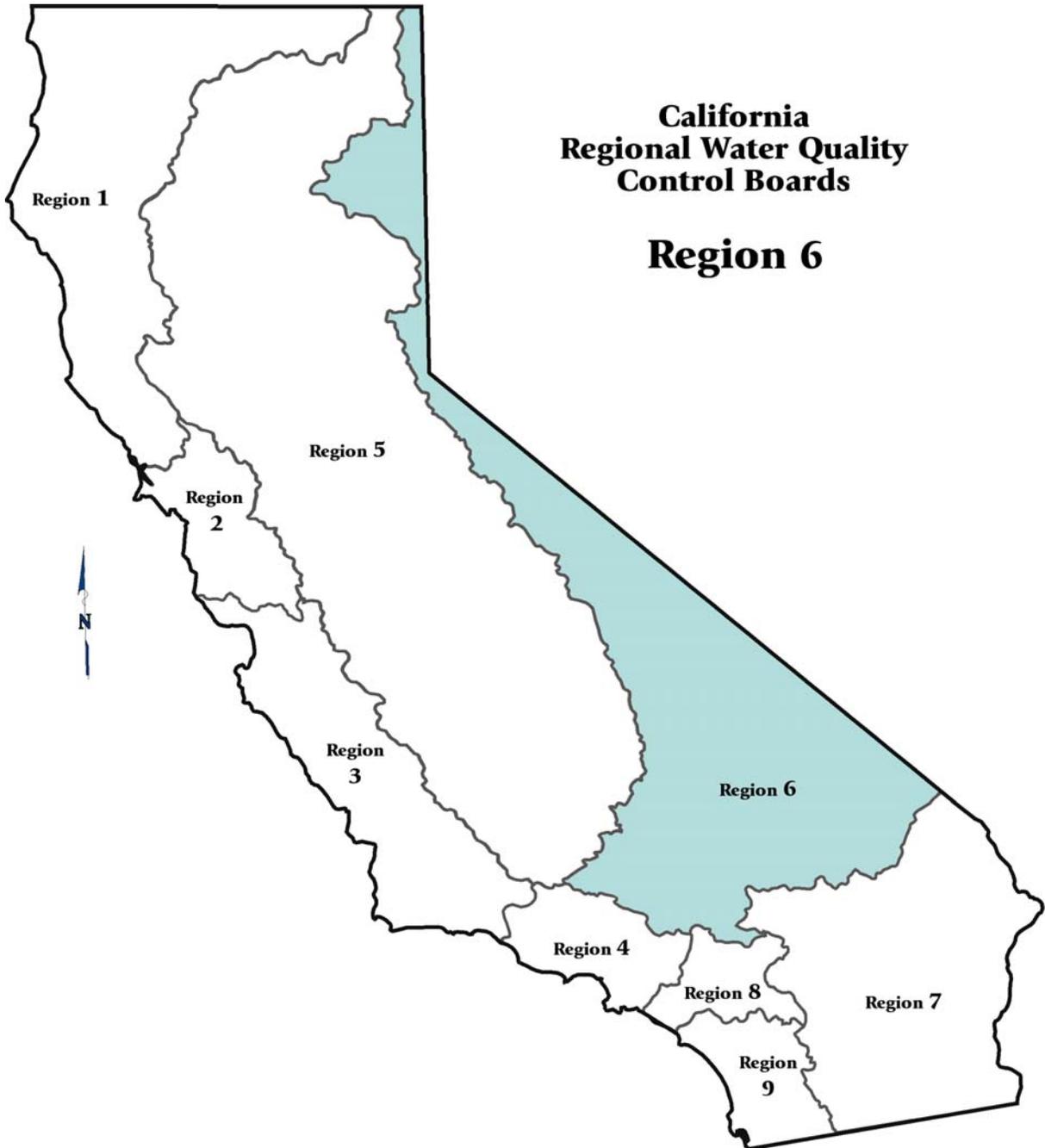
Numeric Line of Evidence	Pollutant-Tissue
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA)
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	Central Valley RWQCB Basin Plan: All waters shall be maintained free of toxic substances in concentrations that are toxic to, or produce detrimental physiological responses in human, plant, animal, or aquatic life.
<i>Evaluation Guideline:</i>	100 ng/g - OEHHA Screening Value (Brodberg & Pollock, 1999).
<i>Data Used to Assess Water Quality:</i>	Two out of 3 samples exceeded. A total of 3 filet composite samples of 2 largemouth bass and one of white catfish were collected. Largemouth bass were collected in 1998 and 2000. White catfish were collected in 1998. The guideline was exceeded in the 2000 sample of largemouth bass and the 1998 white catfish sample (TSMP, 2002).

Spatial Representation: One station along the San Joaquin River about 4 miles upstream from South County Park near San Joaquin City (Vernalis) was sampled.

Temporal Representation: Samples were collected annually 1998 and 2000.

Data Quality Assessment: Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 1996-2000. Department of Fish and Game.

Fact Sheets Supporting “Do Not Delist” Recommendations



September 2006

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Original Fact Sheets

Fact Sheets Not Changed
from September 2005 Version

Region 6

Water Segment: Donner Lake

Pollutant: Polychlorinated biphenyls

Decision: Do Not Delist

Weight of Evidence: Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Two of the 2 samples exceeded the water quality objectives but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Tissue
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA)
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan: There shall be no detectable increase in bioaccumulation of pesticides in aquatic life.
<i>Evaluation Guideline:</i>	OEHHA Screening Value is 20 ng/g for total PCBs (Brodberg & Pollock, 1999).
<i>Data Used to Assess Water Quality:</i>	Two out of 2 samples exceeded. Two filet composite samples of lake trout were collected. Lake trout were collected in 1993 and 1996. The guideline was exceeded in both samples (TSMP, 2002).
<i>Spatial Representation:</i>	One station located about 1 mile west of the dam.
<i>Temporal Representation:</i>	Samples were collected 9/16/93 and 9/18/96.
<i>Data Quality Assessment:</i>	Toxic Substances Monitoring Program 1992-93 Data Report. Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 1996-2000. Department of Fish and Game.

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Fact Sheets Supporting “Do Not Delist” Recommendations



September 2006

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Original Fact Sheets

Fact Sheets Not Changed
from September 2005 Version

Region 7

Water Segment: Imperial Valley Drains

Pollutant: Selenium

Decision: Do Not Delist

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

One line of evidence is available in the administrative record to assess this pollutant. A large number of samples exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. Seven of 69 fish tissue samples exceeded the water quality objective for the fish consumption standard and this exceeds 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Tissue
<i>Beneficial Use:</i>	CO - Cold Freshwater Habitat
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	OEHHA screening value for selenium 2 ppm.
<i>Data Used to Assess Water Quality:</i>	Seven of 69 samples for selenium in fish tissue taken between October 1986 and November of 2000 exceeded the fish consumption standard (TSMP, 2002).
<i>Spatial Representation:</i>	unknown
<i>Temporal Representation:</i>	Samples collected between October 1986 and November 2000.
<i>Data Quality Assessment:</i>	Toxic Substances Monitoring Program Database 1978-2000.

Region 7

Water Segment: New River (Imperial)

Pollutant: Oxygen, Dissolved

Decision: Do Not Delist

Weight of Evidence: Two lines of evidence are available in the administrative record to assess this pollutant. Based on section 4.6, the site has significant toxicity. The benthic community is impacted.

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

This conclusion is based on the staff findings that:

1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Eighty-three of 116 samples exceeded the water quality objective, and additionally, there were a total of 3264 measurements taken over 16 days. The objective was exceeded numerous times on 14 of those 16 collection days. A large number of samples exhibit toxicity, and these exceed the allowable frequency listed in Table 4.2 of the Listing Policy. The benthic community in this water body is impacted and this pollutant is associated with this impact.
5. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

**SWRCB Staff
Recommendation:**

After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	FR - Freshwater Replenishment, IN - Industrial Service Supply, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA - Warm Freshwater Habitat, WI - Wildlife Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	Colorado River RWQCB Basin Plan: The dissolved oxygen concentration for waters designated as warm freshwater habitat shall not be reduced below 5 mg/L.
<i>Data Used to Assess Water Quality:</i>	Samples were collected on 83 different days from January 1997 through March 2004. Measurements were taken monthly. There were 83 exceedances of these 83 measurements. Samples were collected from January to December of 1999. Eighteen days of samples were collected and of the 18 samples there were 5 exceedances. D.O. levels dropped below 5 mg/L (3.54-4.95 mg/L) in 5 samples collected in June, July, August, and September. Samples were also collected by IID in 1997 and 1998. There were 3 exceedances of these 15 measurements (SWRQCB, 2003).
<i>Spatial Representation:</i>	The 83 samples were collected from the New River at the International Boundary. Specific sample collection locations are unknown for the 18 and 15 sample sizes.
<i>Temporal Representation:</i>	The 83 samples collected each month from January 1997 to March 2004. There are no data for October, November, and December of 1999. The 18 samples were collected from 1/21/1999 through 12/14/1999. Samples were collected once a month, except during April through September when there were two samples collected each month. The 15 samples were collected monthly from 1/28/1997 through 3/17/1998.
<i>Environmental Conditions:</i>	For the 83 samples, other field measurements include flow, temperature, pH, and conductivity. Field observations were also recorded. For the 18 samples, all measurements were taken at a depth of 0.5 meters. Samples were taken twice a month during the warmer months of April through September.
<i>Data Quality Assessment:</i>	Data used in 2002 assessment. Also used IID SOPs.
<i>QA/QC Equivalent:</i>	QA/QC used by RWQCB staff.

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	FR - Freshwater Replenishment, IN - Industrial Service Supply, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA - Warm Freshwater Habitat, WI - Wildlife Habitat
<i>Matrix:</i>	Water

<i>Water Quality Objective/ Water Quality Criterion:</i>	Colorado River RWQCB Basin Plan: The dissolved oxygen concentration for waters designated as warm freshwater habitat shall not be reduced below 5 mg/L.
<i>Data Used to Assess Water Quality:</i>	Samples were collected by the RWQCB during July of 1999. There were a total of 3264 measurements over 16 days. The objective was exceeded numerous times on 14 of those collection days (SWRCB, 2003).
<i>Spatial Representation:</i>	Samples were collected on the New River at Mexicali.
<i>Temporal Representation:</i>	Measurements were taken every few minutes each day from 7/7/99 through 7/23/99. No measurements were taken on 7/20/99.
<i>Environmental Conditions:</i>	Other information collected includes water temperature, conductivity, and pH.
<i>QA/QC Equivalent:</i>	QA/QC used by RWQCB staff.

Region 7

Water Segment: Salton Sea

Pollutant: Salinity

Decision: Do Not Delist

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

One line of evidence is available in the administrative record to assess this pollutant. A large number of samples exceed the water quality objective.

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

This conclusion is based on the staff findings that:

3. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.

4. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.

3. Eighty-six of 89 samples exceeded the water quality objective and this exceeds 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Line of Evidence Pollutant-Water

Beneficial Use AQ - Aquaculture, IN - Industrial Service Supply, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Non-Numeric Objective: The water quality objective for Salton Sea is to reduce the present level of salinity, and stabilize it at 35,000 mg/L unless it can be demonstrated that a different level of salinity is optimal for the sustenance of the Sea's wild and aquatic life (California Department of Fish and Game is attempting to make this determination). However, the achievement of this water quality objective shall be accomplished without adversely affecting the primary purpose of the Sea which is to receive and store agricultural drainage, seepage, and storm waters. Also, because of economic considerations, 35,000 mg/L may not be realistically achievable. In such

case, any reduction in salinity which still allows for survival of the sea's aquatic life shall be deemed an acceptable alternative or interim objective. Because of the difficulty and predicted costliness of achieving salinity stabilization of Salton Sea, it is unreasonable for the Regional Board to assume responsibility for implementation of this objective. That responsibility must be shared jointly by all of the agencies which have direct influence on the Sea's fate. Additionally, there must be considerable public support for achieving this objective, without which it is unlikely necessary funding for Salton Sea salinity control will ever be realized.

Data Used to Assess Water Quality:

Samples were collected by IID at 5 locations around the Salton Sea twice annually from 1995 to 2003. A total of 89 measurements were taken and only 3 measurements were less than 35,000 mg/L and 86 exceeded. Two of those measurements were at the "between rivers" site. Salinity data from this site is generally excluded from the IID Salt Balance Report due to possible influence of fresh water from the New and Alamo Rivers (CRBRWQCB, 2004).

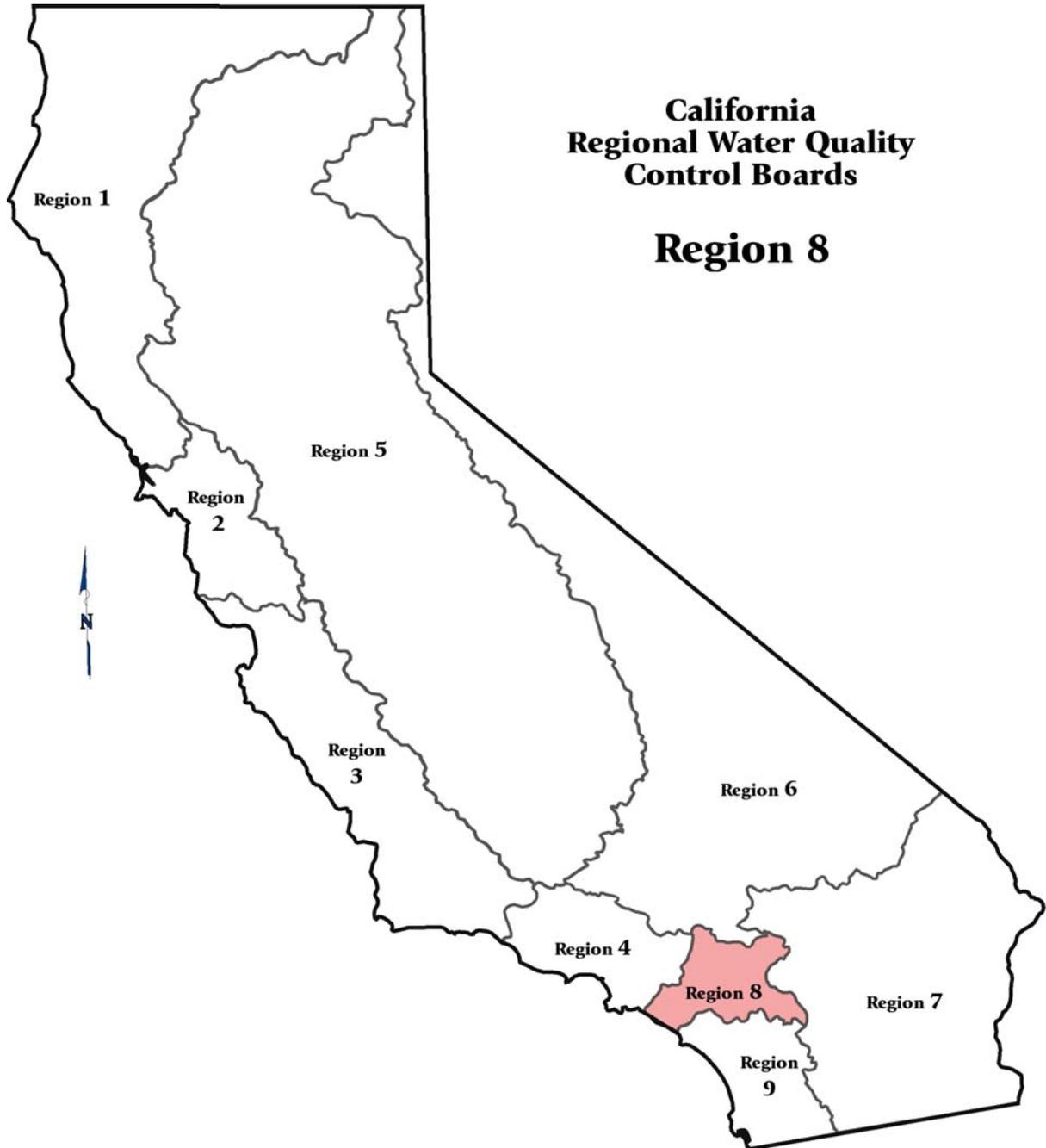
Spatial Representation:

Samples were collected at 5 locations around the outer edge of the Salton Sea: Bertram Station, Desert Beach, Salton Sea Beach, Sandy Beach, and Between Rivers.

Temporal Representation:

Samples were collected twice annually (spring and fall) from 5/10/1995 through 10/23/2003.

Fact Sheets Supporting “Do Not Delist” Recommendations



September 2006

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New or Revised Fact Sheets

New or Revised Fact Sheets

Region 8

Water Segment: Anaheim Bay

Pollutant: Dieldrin

Decision: Do Not Delist

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

Multiple lines of evidence are available in the administrative record to assess this pollutant. None of the tissue samples exceed the water quality objective but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of 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 9 fish tissue samples exceeded the NAS tissue guideline, and 19 of 107 sediment samples exceed.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Toxicity

Beneficial Use: MA - Marine Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* Basin Plan Narrative Water Quality Objective: The concentrations of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses.

Data Used to Assess Water Quality: Nineteen of 59 samples exceeded the 90 percent of the minimum significant difference for test species *Eohaustorius estuarius*. Two of 29 samples exhibited toxicity in the dry season (8/25/01), and 17 of 30 exhibited toxicity in the wet season (4/14/03) (Santa Ana RWQCB,

	2003a).
<i>Spatial Representation:</i>	The data shows data collected at 33 stations (no data were included for stations 22 and 26.)
<i>Temporal Representation:</i>	Data were collected on 8/25/01 and 4/14/2003.
<i>Environmental Conditions:</i>	Samples were collected during dry (8/25/01) and wet (4/14/03) seasons.
<i>Data Quality Assessment:</i>	SARWQCB followed the Bight 1998 QAPP developed by SCCWRP.
<i>QA/QC Equivalent:</i>	Quality control data was presented.

<i>Numeric Line of Evidence</i>	Pollutant-Tissue
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA)
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (Santa Ana RWQCB, 1995a).
<i>Evaluation Guideline:</i>	No applicable guidelines apply to the beneficial uses for this water body-pollutant combination.
<i>Data Used to Assess Water Quality:</i>	Twenty-nine mussel tissue samples were collected, however no applicable guidelines are available to evaluate this data (SMWP, 2004b).
<i>Spatial Representation:</i>	Samples taken from Huntington Harbour/Anaheim Bay, Anaheim Bay/Navy Harbor, Anaheim Bay/Navy Marsh, Anaheim Bay/Navy Marsh 2, Anaheim Bay/Entrance, Anaheim Bay/Fuel Docks/North, Anaheim Bay/Fuel Docks/South, and Huntington Harbour/Launch Ramp Docks.
<i>Temporal Representation:</i>	Samples taken from 1990 to 1993.

<i>Numeric Line of Evidence</i>	Pollutant-Tissue
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA)
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (Santa Ana RWQCB, 1995a).
<i>Evaluation Guideline:</i>	The fish tissue guideline for the protection of aquatic life for dieldrin is 100ug/kg (NAS, 1972).
<i>Data Used to Assess Water Quality:</i>	None of 4 fish tissue samples from the Costal Fish Contamination Program exceed the NAS guideline for dieldrin (Toxic Substance Monitoring Program, 2002).
<i>Spatial Representation:</i>	Samples taken from Anaheim Bay.
<i>Temporal Representation:</i>	Samples taken from 1998 to 1999.

<i>Numeric Line of Evidence</i>	Pollutant-Tissue
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<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA)
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (Santa Ana RWQCB, 1995a).
<i>Evaluation Guideline:</i>	The fish tissue guideline for the protection of aquatic life for dieldrin is 100ug/kg (NAS, 1972).
<i>Data Used to Assess Water Quality:</i>	None of 5 fish tissue samples from the Toxic Substance Monitoring Program exceed the NAS guideline for dieldrin (Toxic Substance Monitoring Program, 2002).
<i>Spatial Representation:</i>	Samples taken from Huntington Harbour/Anaheim Bay and Anaheim Bay/Sunset Boatworks.
<i>Temporal Representation:</i>	Samples taken from 1990 to 1995.

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA)
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (Santa Ana RWQCB, 1995a).
<i>Evaluation Guideline:</i>	The ERM for dieldrin is 8 ug/kg (ppb) (Long et al., 1990).
<i>Data Used to Assess Water Quality:</i>	None of 58 samples exceed the ERM for dieldrin (Santa Ana RWQCB, 2003b).
<i>Spatial Representation:</i>	Samples were collected at stations 1 through 35 in Anaheim Bay.
<i>Temporal Representation:</i>	Samples were collected during August 2001 and April 2003.
<i>Environmental Conditions:</i>	Twenty-eight samples were collected during the dry season (August) and 30 samples were collected during the wet season (April).

Region 8

Water Segment: Anaheim Bay

Pollutant: Polychlorinated biphenyls

Decision: Do Not Delist

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

Multiple lines of evidence are available in the administrative record to assess this pollutant. One of the fish tissue samples exceed the water quality objective but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of 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. One of 9 samples exceeded the NAS guidelines for total PCBs. At least 28 samples are needed before a pollutant can be considered for removal from the list using the frequencies presented 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.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Toxicity

Beneficial Use: MA - Marine Habitat

Matrix: Sediment

**Water Quality Objective/
Water Quality Criterion:** Basin Plan Narrative Water Quality Objective: The concentrations of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses.

Data Used to Assess Water Quality: Nineteen of 59 samples exceeded the 90 percent of the minimum significant difference for test species *Eohaustorius estuarius*. Two of 29

samples exhibited toxicity in the dry season (8/25/01), and 17 of 30 exhibited toxicity in the wet season (4/14/03) (Santa Ana RWQCB, 2003a).

<i>Spatial Representation:</i>	The data shows data collected at 33 stations (no data were included for stations 22 and 26.)
<i>Temporal Representation:</i>	Data were collected on 8/25/01 and 4/14/2003.
<i>Environmental Conditions:</i>	Samples were collected during dry (8/25/01) and wet (4/14/03) seasons.
<i>Data Quality Assessment:</i>	SARWQCB followed the Bight 1998 QAPP developed by SCCWRP.
<i>QA/QC Equivalent:</i>	Quality control data was presented.

Numeric Line of Evidence	Pollutant-Sediment
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA), MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses.
<i>Evaluation Guideline:</i>	Sediment quality guideline for total PCB is 400 ng/kg dry weight (MacDonald et al., 2000).
<i>Data Used to Assess Water Quality:</i>	None of the 59 samples exceeded the sediment quality guidelines. (Santa Ana RWQCB, 2003b).
<i>Spatial Representation:</i>	Samples were collected at stations 1 through 35 in Anaheim Bay.
<i>Temporal Representation:</i>	Samples were collected on 8/25/2001 and 4/14/2003.
<i>Environmental Conditions:</i>	Twenty-nine samples were collected during dry season (8/25/01) and 30 samples were collected during the wet season (4/14/03).
<i>Data Quality Assessment:</i>	SARWQCB followed the Bight 1998 QAPP developed by SCCWRP.
<i>QA/QC Equivalent:</i>	Quality control data was presented.

Numeric Line of Evidence	Pollutant-Tissue
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA), MA - Marine Habitat
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (Santa Ana RWQCB, 1995a).
<i>Evaluation Guideline:</i>	The fish tissue guideline for the protection of aquatic life for total PCBs is 500ug/kg (NAS, 1972).
<i>Data Used to Assess Water Quality:</i>	None of 4 fish tissue samples from the Coastal Fish Contamination Program exceed the NAS guidelines for total PCBs (Toxic Substance Monitoring Program, 2002).
<i>Spatial Representation:</i>	Samples collected from Anaheim Bay.
<i>Temporal Representation:</i>	Samples collected from 1998 and 1999.

Numeric Line of Evidence	Pollutant-Tissue
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA), MA - Marine Habitat
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (Santa Ana RWQCB, 1995a).
<i>Evaluation Guideline:</i>	No applicable guidelines apply to the beneficial uses for this water body-pollutant combination.
<i>Data Used to Assess Water Quality:</i>	There are 29 mussel tissue samples, however, no applicable guidelines exist to evaluate this data (SMWP, 2004b).
<i>Spatial Representation:</i>	Samples collected from Anaheim Bay/Navy Harbor, Anaheim Bay/Navy Marsh, Anaheim Bay/Navy Marsh 2, Anaheim Bay/Fuel Docks/North, Anaheim Bay/Fuel Docks/South, and Huntington Harbour/Launch Ramp Docks.
<i>Temporal Representation:</i>	Samples taken from 1982 to 1998. Most samples are taken during the month of December.

Numeric Line of Evidence	Pollutant-Tissue
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA), MA - Marine Habitat
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (Santa Ana RWQCB, 1995a).
<i>Evaluation Guideline:</i>	The fish tissue guideline for the protection of aquatic life for total PCBs is 500ug/kg (NAS, 1972).
<i>Data Used to Assess Water Quality:</i>	One of 5 fish tissue samples in the Toxic Substance Monitoring Program exceed the NAS guidelines for total PCBs (Toxic Substance Monitoring Program, 2002).
<i>Spatial Representation:</i>	Samples collected from Huntington Harbour/Anaheim Bay and Anaheim Bay/Sunset Boatworks.
<i>Temporal Representation:</i>	Samples collected from 1990 to 1995.

Region 8

Water Segment: Big Bear Lake

Pollutant: Mercury

Decision: Do Not Delist

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

One line of evidence is available in the administrative record to assess this pollutant. Two samples exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. Two of 13 composite samples exceeded the OEHHA screening value and this exceeds 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should remain on the section 303(d) list because applicable water quality standards are being exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

Beneficial Use: CM - Commercial and Sport Fishing (CA), CO - Cold Freshwater Habitat, WI - Wildlife Habitat

Matrix: Tissue

*Water Quality Objective/
Water Quality Criterion:* Toxic Substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels harmful to humans.

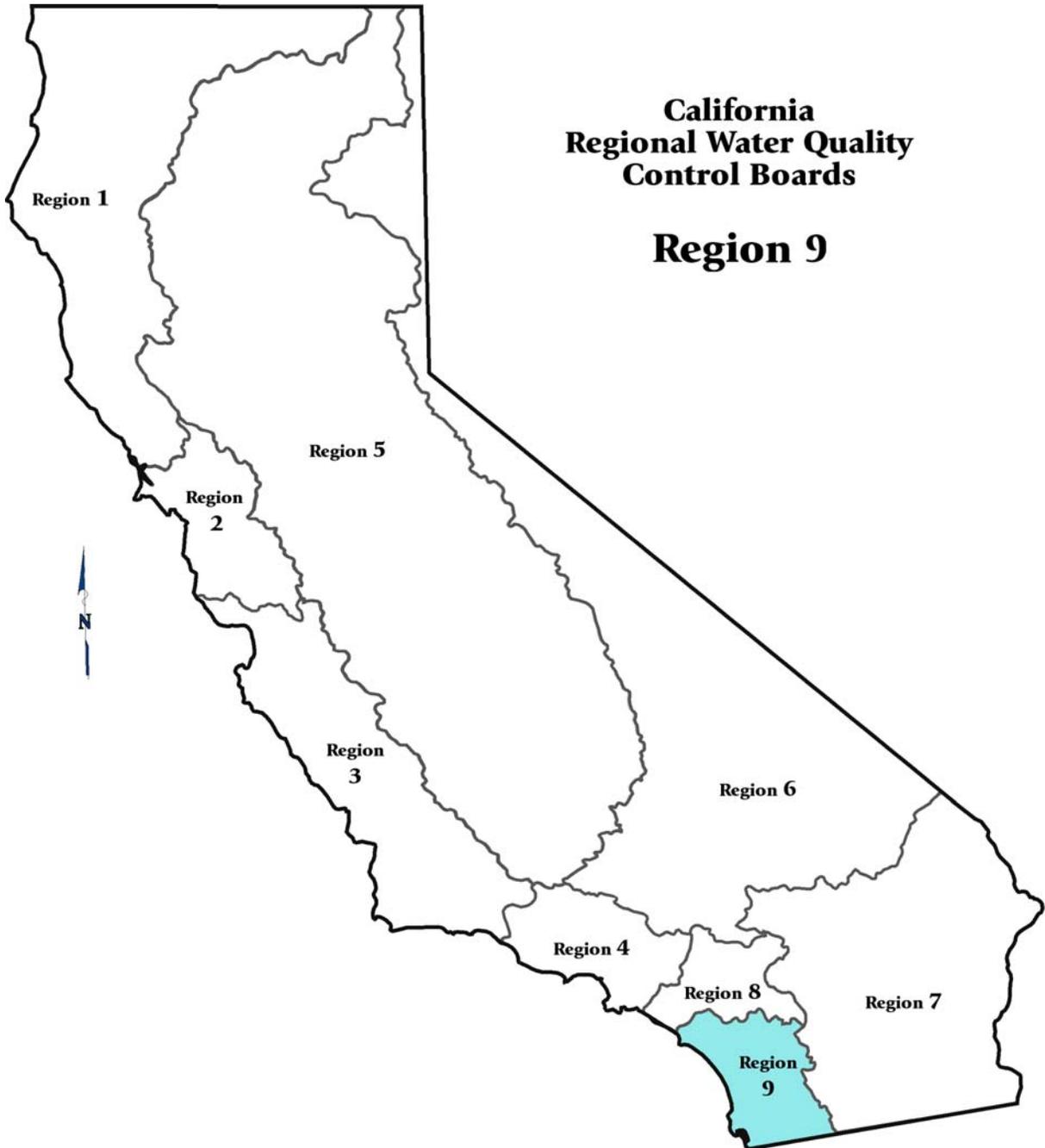
Evaluation Guideline: The OEHHA screening value for mercury is 0.3 mg/kg (ppm) wet weight (Brodberg and Pollock, 1999).

Data Used to Assess Water Quality: A total of 13 filet composite samples were collected: 10 largemouth bass and 3 carp. Two out of 13 samples exceeded the evaluation guideline. Bass in both 2000 and 2001 exceeded the guideline (TSMP, 2002).

<i>Spatial Representation:</i>	Three stations were sampled: at Metcalf and Grout Bays, in the vicinity of the mouth of Rathbone Creek, and about 200 yards from the dam along the south shore.
<i>Temporal Representation:</i>	Bass were collected in 1992, 1994-95, and 2000-01. Carp were collected in 2000-01. Samples were collected annually in 1992, 1994-95, and 2000-01.
<i>Data Quality Assessment:</i>	Toxic Substances Monitoring Program 1992-93 and 1994-95 Data Reports. Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 1996-2000. Department of Fish and Game. Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.
<i>QA/QC Equivalent:</i>	Data Collected from: SWRCB. 1995. Toxic Substances Monitoring Program 1992-93 Data Report. SWRCB. 1997. Toxic Substances Monitoring Program 1994-95 Data Report. Toxic Substances Monitoring Program, 1978-2003. Electronic database.

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Fact Sheets Supporting
“Do Not Delist” Recommendations



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Original Fact Sheets

Fact Sheets Not Changed
from September 2005 Version

Region 9

Water Segment: Agua Hedionda Creek

Pollutant: Total Dissolved Solids

Decision: Do Not Delist

Weight of Evidence: One line of evidence is available in the administrative record to assess this pollutant. A single sample was collected and it did exceed the Basin Plan criteria, but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.

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

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: AG - Agricultural Supply, CO - Cold Freshwater Habitat, IN - Industrial Service Supply, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* From the Basin Plan: For inland surface waters and all beneficial uses, the WQO for TDS is 500 mg/L. This concentration is not to be exceeded more than 10% of the time during any one year period.

Data Used to Assess Water Quality: Data were collected by the RWQCB in 1998. One sample was collected. It was in exceedance.

Spatial Representation: Sample was collected at Agua Hedionda Creek at Sycamore Avenue.

Temporal Representation: Sample was collected on 06/10/1998.

QA/QC Equivalent: Data used in 2002 assessment.

Region 9

Water Segment: Felicita Creek

Pollutant: Total Dissolved Solids

Decision: Do Not Delist

Weight of Evidence: Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. Twenty-three of 24 samples exceeded the Basin Plan's water quality objective. The minimum number of samples required is 26 according to Table 4.2 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	MU - Municipal & Domestic
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	From the Basin Plan: For inland surface waters with all beneficial uses, the WQO for TDS is 500 mg/L. This concentration is not to be exceeded more than 10% of the time during any one year period.
<i>Data Used to Assess Water Quality:</i>	Data were collected by the City of San Diego Water Dept. from 04/1999 to 06/1999. Three of 3 samples were in exceedance.
<i>Spatial Representation:</i>	Samples were collected at Felicita Creek site FEL2, off Quiet Hills Farm Road.
<i>Temporal Representation:</i>	Samples were collected once per month in April, May and June of 1999.
<i>QA/QC Equivalent:</i>	Data used in 2002 assessment. QA=?

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	MU - Municipal & Domestic
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	From the Basin Plan: For inland surface waters with all beneficial uses, the WQO for TDS is 500 mg/L. This concentration is not to be exceeded more than 10% of the time during any one year period.
<i>Data Used to Assess Water Quality:</i>	Data were collected by the City of San Diego Water Dept. from 04/1999 to 04/2000. Twenty of 21 samples were in exceedance.
<i>Spatial Representation:</i>	Samples were collected at Felicita Creek site FEL3 at the road crossing above the water line.
<i>Temporal Representation:</i>	Samples were collected from 04/26/1999 to 04/18/2000. One sample per month was collected in 1999 from April to June, and 2-3 samples per month were collected in 2000 from February to April.

Region 9

Water Segment: Forester Creek

Pollutant: Total Dissolved Solids

Decision: Do Not Delist

Weight of Evidence: One line of evidence is available in the administrative record to assess this pollutant. Ten of the 10 samples exceed the Basin Plan criteria. Even though the number of samples is insufficient to determine with the confidence and power of the Listing Policy, a minimum of 61 samples would be needed before 10 exceedances would result in a delisting of this pollutant for this waterbody.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of removing this water segment-pollutant combination on the section 303(d) list in the Water Quality Limited Segments category.

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: IN - Industrial Service Supply

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* From the Basin Plan: For inland surface waters with all beneficial uses, the WQO for TDS is 500. This concentration is not to be exceeded more than 10% of the time during any one year period.

Data Used to Assess Water Quality: Data were collected by the City of El Cajon in 09/1997 and monthly from 04/2000-12/2000. Only monthly averages were reported. Ten of 10 averages were in exceedance.

Spatial Representation: Samples were collected at Forester Creek. The exact sampling location was not reported.

Temporal Representation: Samples were collected in 09/1997 and monthly from 04/2000-12/2000. Only monthly averages were reported. It is unknown how often samples were collected during each month.

Region 9

Water Segment: Forester Creek

Pollutant: pH (high)

Decision: Do Not Delist

Weight of Evidence: Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. Thirty-eight of 48 samples exceeded the Basin Plan's water quality objective and this exceeds the allowable frequency listed in Table 4.2 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: IN - Industrial Service Supply

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* From the Basin Plan: For inland surface waters and all beneficial uses, the WQO for pH is 6.5 (minimum) to 8.5 (maximum).

Data Used to Assess Water Quality: Data were collected by the City of El Cajon from 09/1994 to 01/2001. Fourteen of 14 samples were in exceedance.

Spatial Representation: Samples were collected in Forester Creek, North of I-8 between Magnolia and Johnson.

Temporal Representation: Oldest data used is almost 10 years old at time of assessment. Samples were collected from 09/27/1994 to 01/03/2001. Two samples each were collected in 09/1994, 05/1996, 11/1997, 01/1999, 06/1999, and 01/2001. One sample each was collected in 12/1999, and 07/2000.

QA/QC Equivalent: Data used in 2002 assessment.

Numeric Line of Evidence Pollutant-Water
Beneficial Use: IN - Industrial Service Supply
Matrix: Water
*Water Quality Objective/
Water Quality Criterion:* From the Basin Plan: For inland surface waters and all beneficial uses, the WQO for pH is 6.5 (minimum) to 8.5 (maximum).
Data Used to Assess Water Quality: Data were collected by the City of El Cajon from 09/1994 to 01/2001. Twelve of 12 samples were in exceedance.
Spatial Representation: Samples were collected at Forester Creek North of Vernon Way between Johnson and Marshall.
Temporal Representation: Oldest data used is just under 10 years old at time of assessment. Samples were collected from 09/27/1994 to 01/03/2001. Two samples were collected per month in 09/1994, 05/1996, 11/1997, 01/1999, and 01/2001. One sample was collected per month in 06/1999 and 07/2000.
QA/QC Equivalent: Data used in 2002 assessment.

Numeric Line of Evidence Pollutant-Water
Beneficial Use: IN - Industrial Service Supply
Matrix: Water
*Water Quality Objective/
Water Quality Criterion:* From the Basin Plan: For inland surface waters and all beneficial uses, the WQO for pH is 6.5 (minimum) to 8.5 (maximum).
Data Used to Assess Water Quality: Data were collected by the City of El Cajon from 09/1994 to 01/2001. Twelve of 12 samples were in exceedance.
Spatial Representation: Samples were collected at Forester Creek Channel at North City Limit.
Temporal Representation: Age of oldest data assessed is almost 10 years at time of assessment. Samples were collected from 09/27/1994 to 01/03/2001. Two samples per month were collected in 09/1994, 05/1996, 11/1997, 01/1999, and 01/2001. One sample per month was also collected in 06/1999 and 07/2000.
QA/QC Equivalent: Data used in 2002 assessment.

Numeric Line of Evidence Pollutant-Water
Beneficial Use: IN - Industrial Service Supply
Matrix: Water
*Water Quality Objective/
Water Quality Criterion:* From the Basin Plan: For inland surface waters and all beneficial uses, the WQO for pH is 6.5 (minimum) to 8.5 (maximum).
Data Used to Assess Water Quality: Data were collected by the City of El Cajon in 09/1997 and 04/2000-12/2000. Only monthly averages were reported. None of the 10 averages were in exceedance.
Spatial Representation: Samples were collected at Forester Creek. Location of sampling is unknown.

Temporal Representation: Samples were collected in 09/1997 and 04/2000-12/2000. Monthly averages are reported. It is unknown how many samples were collected per month.

Line of Evidence Ancillary Evidence Spills

Beneficial Use IN - Industrial Service Supply

Information Used to Assess Water Quality: County of San Diego DEH referral says that an emergency response team was on the scene to conduct a cleanup of the spill.

Non-Numeric Objective: The pH value shall not be changed at any time more than 0.2 pH units from that which occurs naturally. Changes in normal ambient pH levels shall not exceed 0.2 units in waters with designated marine (MAR), or estuarine (EST), or saline (SAL) beneficial uses. Changes in normal ambient pH levels shall not exceed 0.5 units in fresh waters with designated cold freshwater habitat (COLD) or warm freshwater habitat (WARM) beneficial uses. In bays and estuaries the pH shall not be depressed below 7.0 nor raised above 9.0. In inland surface waters the pH shall not be depressed below 6.5 nor raised above 8.5.

Evaluation Guideline: The corresponding numeric objective for pH from the Basin Plan for inland surface waters with all beneficial uses is 6.5 (minimum) to 8.5 (maximum).

Data Used to Assess Water Quality: A County of San Diego Department of Environmental Health referral form indicates that 10-20 gallons of an acid/water/copper mixture (pH of 2-3) spilled into Forester Creek on 05/01/2001. The spill was reported to the County of San Diego DEH by Randy Olms (employee at Chem-tronics). The complaint was referred to the City of El Cajon. It is reported that an emergency response team was on scene to conduct the clean up.

Spatial Representation: The spill occurred from 1150 W. Bradley Av., El Cajon, CA 92020 (Chem-tronics, Inc.).

Temporal Representation: The spill occurred on 05/01/2001.

Line of Evidence Ancillary Evidence Spills

Beneficial Use IN - Industrial Service Supply

Information Used to Assess Water Quality: The letter from Richard Odiorne (City of El Cajon) asks that Chem-tronics, inc. ensure that they have Best Management Practices in place for spill preventions and cleanup.

Non-Numeric Objective: From the Basin Plan: The pH value shall not be changed at any time more than 0.2 pH units from that which occurs naturally. Changes in normal ambient pH levels shall not exceed 0.2 units in waters with designated marine (MAR), or estuarine (EST), or saline (SAL) beneficial uses. Changes in normal ambient pH levels shall not exceed 0.5 units in fresh waters with designated cold freshwater habitat (COLD) or warm freshwater habitat (WARM) beneficial uses. In bays and estuaries the pH shall not be depressed below 7.0 nor raised above 9.0. In inland surface waters the pH shall not be depressed below 6.5 nor raised above 8.5.

Evaluation Guideline: The corresponding numeric objective for pH from the Basin Plan for inland surface waters with all beneficial uses is 6.5 (minimum) to 8.5

(maximum).

Data Used to Assess Water Quality:

A letter from the City of El Cajon, by Richard C. Odiome, City Engineer, was written to Julian Medina at Chem-tronics, Inc, in El Cajon, CA. The letter is dated July 6, 2000 and documents a 1000 gallons sodium hydroxide spill from Chem-tronic, Inc, that occurred on July 5, 2000.

Spatial Representation:

A sodium hydroxide spill occurred in the Forester Creek Channel from Chem-tronics, Inc. 1150 West Bradley Av., El Cajon, CA 92020.

Temporal Representation:

The spill occurred on July 5, 2000.

Region 9

Water Segment: Green Valley Creek

Pollutant: Sulfates

Decision: Do Not Delist

Weight of Evidence: Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. Twenty-two of 36 samples exceeded the Basin Plan's water quality objective and this exceeds 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: MU - Municipal & Domestic

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* From the Basin Plan: For inland surface waters with a municipal beneficial use, the WQO for Sulfate is 250 mg/L. This concentration is not to be exceeded more than 10% of the time during any one year period.

Data Used to Assess Water Quality: Data were collected by the City of San Diego Water Dept. from 04/1999 to 07/2001. Fourteen of 23 samples were in exceedance.

Spatial Representation: Samples were collected in Green Valley Creek west of West Bernardo Drive.

Temporal Representation: Samples were collected from 04/1999 to 07/2001. Three to 10 samples were collected per year, with multiple samples being collected on different days during the sampling months.

QA/QC Equivalent: Data used in 2002 assessment.

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	MU - Municipal & Domestic
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	From the Basin Plan: For inland surface waters and all beneficial uses, the WQO for sulfate is 250 mg/L. This is the concentration not to be exceeded more than 10% of the time during any one year period.
<i>Data Used to Assess Water Quality:</i>	Data were collected by the City of San Diego Water Dept. from 04/1999 to 04/2000. Eight of 13 samples were in exceedance.
<i>Spatial Representation:</i>	Samples were collected at Green Valley Creek west of West Bernardo Drive.
<i>Temporal Representation:</i>	Samples were collected from 04/26/1999 to 04/18/2000. Three samples were collected in 1999 (1 each in April, May, June) and 10 samples were collected in 2000, with multiple samples being collected each month in February, March, and April.
<i>QA/QC Equivalent:</i>	Data used in 2002 assessment.

Region 9

Water Segment: Hodges, Lake

Pollutant: Color

Decision: Do Not Delist

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

This conclusion is based on the staff findings that:

1. Twenty out of 20 samples exceeded the Basin Plan objective. Even though more data is needed to determine if the water quality objective is exceeded with the confidence and power required by the Listing Policy, a minimum of 122 samples would be needed before 20 exceedances would result in a delisting.
2. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: MU - Municipal & Domestic

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* From the Basin Plan: For inland surface waters with a municipal beneficial use, the WQO for color is 15 units.

Data Used to Assess Water Quality: Data was collected at site HGA-0 by the City of San Diego Water Dept. from March 1996 to December 2000. Twenty of 20 samples were in exceedance.

Spatial Representation: Samples were collected at site HGA-0.

Temporal Representation: Samples were collected quarterly from March 1996 to December 2000.

QA/QC Equivalent: Data used in 2002 assessment.

Region 9

Water Segment: Hodges, Lake

Pollutant: Nitrogen

Decision: Do Not Delist

Weight of Evidence: Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Twenty three of the 98 samples from two combined lines of evidence exceeded the Basin Plan Criteria, but the total number of samples taken is insufficient to determine with the confidence and power required by the Listing Policy whether water quality standards are being attained.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: AG - Agricultural Supply, CO - Cold Freshwater Habitat, IN - Industrial Service Supply, MU - Municipal & Domestic, PR - Industrial Process Supply, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* From the Basin Plan: For inland surface waters, enclosed bays and estuaries, coastal lagoons, and ground waters with all beneficial uses, analogous threshold values have not been set for nitrogen compounds; however, natural ratios of nitrogen to phosphorus are to be determined by surveillance and monitoring and upheld. If data are lacking, a ratio of N:P = 10:1, on a weight to weight basis shall be used. For this assessment, the N:P ratio was used.

Data Used to Assess Water Quality: Data was collected by the City of San Diego Water Dept. from March 1997 to July 2001. Seventeen of the 17 samples exceeded the N:P ratio of 10:1. In addition, the phosphorus samples were all in exceedance.

Spatial Representation: Samples were collected at Hodges Reservoir at HG Rec Area Delivery Point.

Temporal Representation: Samples were collected on a quarterly basis from March 1997 to July 2001.

QA/QC Equivalent: Data used in 2002 assessment.

Numeric Line of Evidence Pollutant-Water

Beneficial Use: AG - Agricultural Supply, CO - Cold Freshwater Habitat, IN - Industrial Service Supply, MU - Municipal & Domestic, PR - Industrial Process Supply, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix: Water

Water Quality Objective/ Water Quality Criterion: From the Basin Plan: For inland surface waters, enclosed bays and estuaries, coastal lagoons, and ground waters with all beneficial uses, analogous threshold values have not been set for nitrogen compounds; however, natural ratios of nitrogen to phosphorus are to be determined by surveillance and monitoring and upheld. If data are lacking, a ratio of N:P = 10:1, on a weight to weight basis shall be used. For this assessment, the N:P ratio was used.

Data Used to Assess Water Quality: Data was collected at site HGA at several depths by the City of San Diego Water Dept. from January 1997 to July 2001. Eight of the 81 samples were in exceedance.

Spatial Representation: Samples were collected at Hodges Reservoir site HGA at depths of 0m, 3m, 12m, and 1ft above the bottom.

Temporal Representation: Samples were collected on a quarterly basis from January 1997 to July 2001.

QA/QC Equivalent: Data used in 2002 assessment. QA=?

Region 9

Water Segment: Hodges, Lake

Pollutant: Phosphorus

Decision: Do Not Delist

Weight of Evidence: Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Sixty of the 97 samples from two combined lines of evidence exceeded the Basin Plan Criteria, and these 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: AG - Agricultural Supply, CO - Cold Freshwater Habitat, IN - Industrial Service Supply, MU - Municipal & Domestic, PR - Industrial Process Supply, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* From the Basin Plan: For inland surface waters - any standing body of water, and all beneficial uses, the WQO for total phosphorus is 0.025 mg/L. This is the maximum, threshold - not to be exceeded more than 10% of the time.

Evaluation Guideline: Use unless studies of the specific water body in question clearly show that water quality objective changes are permissible and changes are approved by the Regional Board.

Data Used to Assess Water Quality: Data was collected by the City of San Diego Water Dept. from March 1997 to July 2001. Sixteen of the 17 samples were in exceedance. (SWRCB, 2003).

Spatial Representation: Samples were collected at Hodges Reservoir at the HG Rec Area Delivery Point.

Temporal Representation: Samples were collected on a quarterly basis from March 1997 to July 2001.

QA/QC Equivalent: Data used in 2002 assessment.

Numeric Line of Evidence Pollutant-Water

Beneficial Use: AG - Agricultural Supply, CO - Cold Freshwater Habitat, IN - Industrial Service Supply, MU - Municipal & Domestic, PR - Industrial Process Supply, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix: Water

Water Quality Objective/ Water Quality Criterion: From the Basin Plan: For inland surface waters - any standing body of water, and all beneficial uses, the WQO for total phosphorus is 0.025 mg/L. This is the maximum, threshold - not to be exceeded more than 10% of the time.

Evaluation Guideline: Use unless studies of the specific water body in question clearly show that water quality objective changes are permissible and changes are approved by the Regional Board.

Data Used to Assess Water Quality: Data was collected at site HGA at several depths by the City of San Diego Water Dept. from January 1997 to July 2001. Forty-four of the 80 samples were in exceedance.

Spatial Representation: Samples were collected at Hodges Reservoir at HG Station A at depths of 0m, 3m, 12m, and 1ft. from the bottom.

Temporal Representation: Samples were collected on a quarterly basis from January 1997 to July 2001.

QA/QC Equivalent: Data used in 2002 assessment.

Region 9

Water Segment: Hodges, Lake

Pollutant: Total Dissolved Solids

Decision: Do Not Delist

Weight of Evidence: One line of evidence is available in the administrative record to assess this pollutant. 10 of the 10 samples exceed the Basin Plan criteria, but the number of samples is insufficient to determine with the confidence and power required by the Listing Policy.

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

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are attained.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: AG - Agricultural Supply, CO - Cold Freshwater Habitat, IN - Industrial Service Supply, MU - Municipal & Domestic, PR - Industrial Process Supply, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix: Water

**Water Quality Objective/
Water Quality Criterion:** From the Basin Plan: For inland surface waters and all beneficial uses, the WQO for TDS is 500 mg/L. This concentration is not to be exceeded more than 10% of the time during any one year period.

Data Used to Assess Water Quality: Data was collected at site HGA-0 by the City of San Diego Water Dept. from September 1998 to December 2000. Ten of the 10 samples were in exceedance.

Spatial Representation: Samples were collected at site HGA-0.

Temporal Representation: Samples were collected from September 1998 to December 2000. Samples were collected quarterly in 1999 and 2000. Two samples were collected in 1998, 1 in September, and 1 in December.

QA/QC Equivalent: Data used in 2002 assessment.

Region 9

Water Segment: Kit Carson Creek

Pollutant: Total Dissolved Solids

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under section 4.1 of the Listing Policy. Under section 4.1 a single line of evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. A large number of samples exceed the water quality objective, but the number of samples is insufficient to determine compliance with the confidence and power required by the Policy,

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination on the section 303(d) list in the Water Quality Limited Segments category.

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. Ten of 11 samples exceeded the 500 mg/L TDS for inland surface waters Basin Plan water quality objective and this exceeds 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.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: AG - Agricultural Supply, IN - Industrial Service Supply, MU - Municipal & Domestic, PR - Industrial Process Supply, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix: Water

<i>Water Quality Objective/ Water Quality Criterion:</i>	From the Basin Plan: For inland surface waters and all beneficial uses, the WQO for TDS is 500 mg/L. This concentration is not to be exceeded more than 10% of the time during any one year period.
<i>Data Used to Assess Water Quality:</i>	Data were collected by the City of San Diego Water Dept. from 1999-2000. Ten of the 11 samples were in exceedance.
<i>Spatial Representation:</i>	Samples were collected at Kit Carson Creek at Sunset Drive.
<i>Temporal Representation:</i>	Samples were collected in April-June 1999 and February-April 2000.
<i>QA/QC Equivalent:</i>	Data used in 2002 assessment.

Region 9

Water Segment: Murrieta Creek

Pollutant: Phosphorus

Decision: Do Not Delist

Weight of Evidence: Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. One-hundred and five of 167 samples exceeded the Basin Plan criteria and this exceeds 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: AG - Agricultural Supply, CO - Cold Freshwater Habitat, GW - Groundwater Recharge, IN - Industrial Service Supply, MU - Municipal & Domestic, PR - Industrial Process Supply, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix: Water

**Water Quality Objective/
Water Quality Criterion:** From the Basin Plan: For inland surface waters-streams and other flowing waters with all beneficial uses, the WQO for total phosphorus is 0.1 mg/L. This appears to be the desired goal in order to prevent plant nuisance in streams and other flowing waters; not to be exceeded more than 10% of the time.

Evaluation Guideline: Use unless studies of the specific water body in question clearly show that water quality objective changes are permissible and changes are approved by the Regional Board.

Data Used to Assess Water Quality: Data were collected by LAW Crandall from 1997 to 1999. Five of 7 samples were in exceedance.

Spatial Representation: Samples were collected at Murrieta Creek. Exact location was not given.

Temporal Representation: Samples were collected from 12/09/1997 to 05/11/1999. One to 4 samples were collected per year. One sample was reported per sampling day.

QA/QC Equivalent: Data used in 2002 assessment.

Numeric Line of Evidence Pollutant-Water

Beneficial Use: AG - Agricultural Supply, CO - Cold Freshwater Habitat, GW - Groundwater Recharge, IN - Industrial Service Supply, MU - Municipal & Domestic, PR - Industrial Process Supply, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* From the Basin Plan: For inland surface waters-streams and other flowing waters with all beneficial uses, the WQO for total phosphorus is 0.1 mg/L. This appears to be the desired goal in order to prevent plant nuisance in streams and other flowing waters; not to be exceeded more than 10% of the time.

Evaluation Guideline: Use unless studies of the specific water body in question clearly show that water quality objective changes are permissible and changes are approved by the Regional Board.

Data Used to Assess Water Quality: Data were collected by the Rancho California Water District from 1999 to 2002. One hundred of 160 samples were in exceedance (Rancho California Water District, 2002).

Spatial Representation: Samples were collected at Murrieta Creek. Exact location was not reported.

Temporal Representation: Samples were collected 4 times per month from 03/31/1999 to 04/17/2002.

Region 9

Water Segment: Pacific Ocean Shoreline, San Diego HU

Pollutant: Indicator Bacteria

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.3 of the Listing Policy. Under section 4.3 a single line of evidence is necessary to assess delisting status.

One line of evidence is available in the administrative record to assess this pollutant. A sufficient number of samples exceed the bacteriological standards

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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 may satisfy 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. There were 75 out of 476 exceedances for enterococcus standards, 56 out of 493 exceedances for single-sample fecal coliform criteria and 96 out of 493 30-day average exceedances. For total coliform, there were 83 out of 532 exceedances. These overall 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: R1 - Water Contact Recreation, R2 - Non-Contact Recreation

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* San Diego RWQCB Basin Plan 1994:
Enterococcus: 35 colonies/100 ml (30-day average), 104 colonies per 100 ml (single sample).
Fecal coliform (FC): 200 colonies/100 mL (30-day average), 400 colonies/100mL(single sample).
Total coliform (TC): 1,000 colonies/100 mL (30-day average), 10,000

colonies/100 mL (single sample, FC/TC ratio is <0.1), 1,000 colonies/100mL (single sample, FC/TC ratio is >0.1).

Data Used to Assess Water Quality:

A total of 1,501 analyses were performed from 1999 through 2003. Of these, there were 75 out of 476 exceedances for enterococcus standards, 56 out of 493 exceedances for single-sample fecal coliform criteria and 96 out of 493 30-day average exceedances. For total coliform, there were 83 out of 532 exceedances. Exceedances occurred during both wet and dry seasons (City of San Diego, 2004).

Spatial Representation:

San Diego River Mouth (a.k.a. Dog Beach). This site is located on the south side of the mouth of the San Diego River. "Ten stations were monitored at the San Diego River mouth site during this time: one at the sampling site, eight as far as 2,000 ft. to the left, and one 100 ft to the right of the site."

Temporal Representation:

Data were available for this assessment from 01/1999 through 10/2003. Samples were collected during both the wet and dry seasons.

Environmental Conditions:

There were several sewage spills from 1999 through 2003 that impacted the site. However, there were not enough elevated bacterial levels associated with the spills to reduce the total number of exceedances below the allowable threshold.

Southern California has three distinct weather/hydrological conditions: summer dry weather, winter dry weather, and storm events. The data set used in this analysis includes summer and winter season data. Whether or not storm event samples are included in the data set are not known. For future water quality assessments, the RWQCB may classify bacteria samples as summer dry, winter dry, or storm event samples to ensure adequate representation of all three weather/hydrological conditions.

Region 9

Water Segment: Prima Deshecha Creek

Pollutant: Phosphorus

Decision: Do Not Delist

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

One line of evidence is available in the administrative record to assess this pollutant. A large number of samples exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. Forty-six of 54 samples were in exceedance of the Basin Plan water quality objective and this exceeds 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: AG - Agricultural Supply, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix: Water

**Water Quality Objective/
Water Quality Criterion:** From the Basin Plan: For inland surface waters - streams and other flowing waters and all beneficial uses, the WQO for total phosphorus is 0.1 mg/L. This appears to be the desired goal in order to prevent plant nuisance in streams and other flowing waters; not to be exceeded more than 10% of the time.

Evaluation Guideline: Use unless studies of the specific water body in question clearly show

that water quality objective changes are permissible and changes are approved by the Regional Board.

Data Used to Assess Water Quality:

Data were collected by Orange County in 1997-2000. Forty-six of 54 samples were in exceedance.

Spatial Representation:

Samples were collected at Prima Deshecha Creek. Exact location was not reported.

Temporal Representation:

Samples were collected 1-5 times per month from 07/02/1997 to 06/29/2000. At least 4 months per year were represented.

QA/QC Equivalent:

Data used in 2002 assessment.

Region 9

Water Segment: Prima Deshecha Creek

Pollutant: Turbidity

Decision: Do Not Delist

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

One line of evidence is available in the administrative record to assess this pollutant. A large number of samples exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. Forty of 54 samples were in exceedance of the turbidity water quality objective and this exceeds 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: AG - Agricultural Supply, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix: Water

**Water Quality Objective/
Water Quality Criterion:** From the Basin Plan: For inland surface waters and all beneficial uses, the WQO for turbidity is 20 NTU. This concentration is not to be exceeded more than 10% of the time during any one year period.

Data Used to Assess Water Quality: Data were collected by Orange County from 1997-2000. Forty of 54 samples were in exceedance. Turbidity concentrations ranged from 4.0 to 5400. There was no note of weather events to correspond with changing turbidity levels.

Spatial Representation: Samples were collected at Prima Deshecha Channel.

Temporal Representation: Samples were collected 1-5 times per month from 07/02/1997 to 06/29/2000. Data was reported for at least four months of each year.

QA/QC Equivalent: Data used in 2002 assessment.

Region 9

Water Segment: San Diego Bay Shoreline, Shelter Island Shoreline Park

Pollutant: Indicator Bacteria

Decision: Do Not Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list under section 4.3 of the Listing Policy. Under section 4.3 a single line of evidence is necessary to assess delisting status.

Two lines of evidence are available in the administrative record to assess this pollutant. A large number of samples exceed the AB 411 bacterial indicator standard.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. Thirty-two of 47 samples exceeded the enterococcus standards, and 113 of 414 exceeded the fecal coliform standard in one of the lines of evidence. One hundred and ninety-nine of 1,178 samples exceeded the bacterial standards for all three indicators in the other line of evidence and these exceed the allowable frequency listed in Table 4.2 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 met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Water
<i>Beneficial Use:</i>	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	From the Basin Plan: For inland surface waters, enclosed bays and estuaries, coastal lagoons, and ground waters with a REC2 beneficial use, the WQO for Fecal Coliform is an average of 2,000 colonies/100mL for any 30-day period. No more than 10% of total samples during any 30-day period should exceed 4,000 colonies per 100 mL. AB411 standards: for fecal coliform: 30-day avg is 200 colonies/100 mL, single sample standard is 400 colonies/100 mL. For total coliform: 30-day avg. is 1,000 colonies/100mL, single sample standard is 10,000 colonies/100 mL. If fecal/total ratio is greater than 0.1, the single sample maximum for total coliform is 1,000 colonies/100 mL. The AB411 standard for enterococcus for the 30-day avg is 35 colonies/100mL, single sample maximum is 104 colonies/100 mL.
<i>Data Used to Assess Water Quality:</i>	Data were collected by the City of San Diego from 1999 to 2003. AB411 standards: For enterococcus, 32 of 47 geomeans were in exceedance and 113 of 414 samples were in exceedance of the single sample standard (City of San Diego, 2004).
<i>Spatial Representation:</i>	Samples were collected in the San Diego Bay at Shelter Island. Samples were collected at three locations in relation to each other: "Left," "Right," and "Middle."
<i>Temporal Representation:</i>	Samples were collected from 05/25/1999 to 10/23/2003.
<i>Environmental Conditions:</i>	Southern California has three distinct weather/hydrological conditions: summer dry weather, winter dry weather, and storm events. The data set used in this analysis includes summer and winter season data. Whether or not storm event samples are included in the data set are not known. For future water quality assessments, the RWQCB may classify bacteria samples as summer dry, winter dry, or storm event samples to ensure adequate representation of all three weather/hydrological conditions.

Line of Evidence	Pollutant-Water
<i>Beneficial Use</i>	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
<i>Non-Numeric Objective:</i>	Objectives are numeric.
<i>Evaluation Guideline:</i>	From AB411: Enterococcus: 35"per 100 ml for 30-day average", single sample: 104 per 100 ml. Fecal coliform: 30-day average- 200 colonies/100 mL. Single sample- 400 colonies/100mL. Total coliform: 30-day average: 1,000 colonies/100 mL, single sample: If FC/TC ratio is < 0.1, 10,000 colonies/100 mL, if FC/TC ratio is > 0.1, 1,000 colonies/100mL.

Data Used to Assess Water Quality:

A total of 1,178 analyses were performed from 1999 through 2003. Of these, there were 199 exceedances of the bacterial standards for all three indicators. Exceedances occurred during both wet and dry seasons (City of San Diego, 2004).

Spatial Representation:

Shelter Island Shoreline Park. This site is located in San Diego Bay on the east side of Shelter Island. "Ten stations were monitored at the Shelter Island Shoreline Park site during this time: one at the sampling site, eight as far as 2,800 feet to the left, and one 300 feet to the right of the site."

Temporal Representation:

Data were available for the Shelter Island Shoreline Park assessment from 01/1999 through 10/2003. Samples were collected during both the wet and dry seasons.

Region 9

Water Segment: Sandia Creek

Pollutant: Total Dissolved Solids

Decision: Do Not Delist

Weight of Evidence: Two lines of evidence are available in the administrative record to assess this pollutant. Twelve of the 12 samples exceed the Basin Plan criteria. Although this is not enough samples to delist this water body for this pollutant, a minimum of 73 samples would be needed before 12 exceedances would result in a delisting.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing this water segment-pollutant combination on the section 303(d) list in the Water Quality Limited Segments category.

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: AG - Agricultural Supply, CO - Cold Freshwater Habitat, IN - Industrial Service Supply, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SP - Fish Spawning, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix: Water

**Water Quality Objective/
Water Quality Criterion:** From the Basin Plan: For inland surface waters in HSA 902.22, and all beneficial uses, the WQO for TDS is 750 mg/L. This concentration is not to be exceeded more than 10% of the time during any one year period.

Data Used to Assess Water Quality: Data were collected by RWQCB9 in 1998. One sample was collected, it was in exceedance.

Spatial Representation: Sample was collected at Sandia Creek at Sandia Creek Rd., 0.5-1.0 mile above the confluence.

Temporal Representation: One sample was collected on 06/09/1998.

QA/QC Equivalent: Data used in 2002 assessment.

Numeric Line of Evidence Pollutant-Water

Beneficial Use: AG - Agricultural Supply, CO - Cold Freshwater Habitat, IN - Industrial

Service Supply, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SP - Fish Spawning, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	From the Basin Plan: For inland surface waters in HSA 902.22, and all beneficial uses, the WQO for TDS is 750 mg/L. This concentration is not to be exceeded more than 10% of the time during any one year period.
<i>Data Used to Assess Water Quality:</i>	Data were collected by LAW Crandall from 1997 to 2000. Eleven of 11 samples were in exceedance.
<i>Spatial Representation:</i>	Samples were collected at Sandia Creek. Exact sample location was not reported.
<i>Temporal Representation:</i>	Samples were collected on a quarterly basis from 12/1997 to 06/2000.
<i>QA/QC Equivalent:</i>	Data used in 2002 assessment.

Region 9

Water Segment: Sutherland Reservoir

Pollutant: Color

Decision: Do Not Delist

Weight of Evidence: Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. Twenty-one of 21 samples exceeded the Basin Plan criteria.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: MU - Municipal & Domestic

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* From Basin Plan: For inland surface waters with a municipal beneficial use, the WQO for color is 15 units. For other beneficial uses, the WQO is 20 units.

Data Used to Assess Water Quality: Data was collected at site SUA-0 by the City of San Diego Water Dept. between March 1996 and December 2000. Twenty-one of 21 samples were in exceedance of the WQO for municipal waters.

Spatial Representation: Samples were collected at site SUA-0 at the water surface.

Temporal Representation: Samples were collected on a quarterly basis between March 1996 and December 2000.

QA/QC Equivalent: Data used in 2002 assessment.

Region 9

Water Segment: Tijuana River Estuary

Pollutant: Oxygen, Dissolved

Decision: Do Not Delist

Weight of Evidence: Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category.

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. There were 18312 of 42308 samples that exceeded the Basin Plan criteria, and these exceed the allowable frequency of the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: BI - Preserva.of Bio.Hab.of Spec.Signif., CM - Commercial and Sport Fishing (CA), ES - Estuarine Habitat, MA - Marine Habitat, MI - Fish Migration, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, SH - Shellfish Harvesting, SP - Fish Spawning, WI - Wildlife Habitat

Matrix: Water

**Water Quality Objective/
Water Quality Criterion:** From the Basin Plan: Dissolved oxygen levels shall not be less than 5.0 mg/L in inland surface waters with designated MAR or WARM beneficial uses or less than 6.0 mg/L in waters with designated COLD beneficial uses. The annual mean dissolved oxygen concentrations shall not be less than 7 mg/L more than 10% of the time.

Data Used to Assess Water Quality: Data were collected by RWQCB9 in 1997 and 1998. Ninety-three of 93 samples were in below the minimum standard. All 8 reported averages for 1997 and 1998 were in exceedance.

Spatial Representation: Samples were collected at the Tijuana River Estuary. Exact sample

location was not reported.

Temporal Representation: Samples were collected 5-31 times per month from 01/03/1998 to 05/31/1998. Samples were also collected in May, July and August 1997 and June-November, 1998, but only monthly averages were reported with the data set.

QA/QC Equivalent: Data used in 2002 assessment.

Numeric Line of Evidence Pollutant-Water

Beneficial Use: BI - Preserva.of Bio.Hab.of Spec.Signif., CM - Commercial and Sport Fishing (CA), ES - Estuarine Habitat, MA - Marine Habitat, MI - Fish Migration, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, SH - Shellfish Harvesting, SP - Fish Spawning, WI - Wildlife Habitat

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* From the Basin Plan: Dissolved oxygen levels shall not be less than 5.0 mg/L in inland surface waters with designated MAR or WARM beneficial uses or less than 6.0 mg/L in waters with designated COLD beneficial uses. The annual mean dissolved oxygen concentrations shall not be less than 7 mg/L more than 10% of the time.

Data Used to Assess Water Quality: Data were collected by the Tijuana National Estuarine Research Reserve in 1998. Five of 12 averages were below the minimum standard.

Spatial Representation: Samples were collected at the Tijuana River Estuary. Exact sampling location was not reported.

Temporal Representation: Samples were collected from 01/1998 to 12/1998. Only monthly averages were reported.

QA/QC Equivalent: Data used in 2002 assessment.

Numeric Line of Evidence Pollutant-Water

Beneficial Use: BI - Preserva.of Bio.Hab.of Spec.Signif., CM - Commercial and Sport Fishing (CA), ES - Estuarine Habitat, MA - Marine Habitat, MI - Fish Migration, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, SH - Shellfish Harvesting, SP - Fish Spawning, WI - Wildlife Habitat

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* From the Basin Plan: Dissolved oxygen levels shall not be less than 5.0 mg/L in inland surface waters with designated MAR or WARM beneficial uses or less than 6.0 mg/L in waters with designated COLD beneficial uses. The annual mean dissolved oxygen concentrations shall not be less than 7 mg/L more than 10% of the time.

Data Used to Assess Water Quality: Data were collected by the Tijuana River NERR in 1997-1998. There were 10212 of 20879 samples that were below the minimum standard.

Spatial Representation: Samples were collected at Tijuana River Estuary site TL.

Temporal Representation: Samples were collected every 30 minutes from 05/23/1997 to 12/27/1998.

During each month, some data were missing, often only over the course of a day or two. Overall, that majority of days per month are represented. Sampling did not occur in 09/1997.

QA/QC Equivalent: Data used in 2002 assessment.

Numeric Line of Evidence Pollutant-Water

Beneficial Use: BI - Preserva.of Bio.Hab.of Spec.Signif., CM - Commercial and Sport Fishing (CA), ES - Estuarine Habitat, MA - Marine Habitat, MI - Fish Migration, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, SH - Shellfish Harvesting, SP - Fish Spawning, WI - Wildlife Habitat

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* From the Basin Plan: Dissolved oxygen levels shall not be less than 5.0 mg/L in inland surface waters with designated MAR or WARM beneficial uses or less than 6.0 mg/L in waters with designated COLD beneficial uses. The annual mean dissolved oxygen concentrations shall not be less than 7 mg/L more than 10% of the time.

Data Used to Assess Water Quality: Data were collected by the Tijuana River NERR in 1999. There were 378 of 1375 samples that were in exceedance.

Spatial Representation: Samples were collected at the Tijuana River Estuary site OS.

Temporal Representation: Samples were collected every 30 minutes from 03/01/1999 to 03/29/1999.

QA/QC Equivalent: Data used in 2002 assessment.

Numeric Line of Evidence Pollutant-Water

Beneficial Use: BI - Preserva.of Bio.Hab.of Spec.Signif., CM - Commercial and Sport Fishing (CA), ES - Estuarine Habitat, MA - Marine Habitat, MI - Fish Migration, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, SH - Shellfish Harvesting, SP - Fish Spawning, WI - Wildlife Habitat

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* From the Basin Plan: Dissolved oxygen levels shall not be less than 5.0 mg/L in inland surface waters with designated MAR or WARM beneficial uses or less than 6.0 mg/L in waters with designated COLD beneficial uses. The annual mean dissolved oxygen concentrations shall not be less than 7 mg/L more than 10% of the time.

Data Used to Assess Water Quality: Data were collected by the Tijuana River NERR in 1997 and 1998. There were 7624 of 19949 samples that were below the minimum standard.

Spatial Representation: Samples were collected at the Tijuana River Estuary site OS.

Temporal Representation: Samples were collected in 30 minute intervals from 04/01/1997 to 09/29/1997 and 01/01/1998 to 12/31/1998. Samples were collected from 04/1997 to 09/1997 and during every month in 1998, and at least 2-3 days per month are represented. Samples were not always collected daily.

QA/QC Equivalent: Data used in 2002 assessment.

Line of Evidence	Testimonial Evidence
<i>Beneficial Use</i>	BI - Preserva.of Bio.Hab.of Spec.Signif., CM - Commercial and Sport Fishing (CA), ES - Estuarine Habitat, MA - Marine Habitat, MI - Fish Migration, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, SH - Shellfish Harvesting, SP - Fish Spawning, WI - Wildlife Habitat
<i>Non-Numeric Objective:</i>	From the Basin Plan: Dissolved oxygen levels shall not be less than 5.0 mg/L in inland surface waters with designated MAR or WARM beneficial uses or less than 6.0 mg/L in waters with designated COLD beneficial uses. The annual mean dissolved oxygen concentrations shall not be less than 7 mg/L more than 10% of the time.
<i>Data Used to Assess Water Quality:</i>	<p>From the letter from San Diego Baykeeper written on 06/14/2004: We recommend continued listing of this area for impairment by bacteria, low dissolved oxygen, eutrophication, pesticides, solids, synthetic organics, lead, nickel, thallium, and trash.</p> <p>Submittal was narrative. There is insufficient information given to determine which beneficial uses may or may not be supported.</p>
<i>Spatial Representation:</i>	The reported area is the Tijuana River Estuary. Exact location was not given.
<i>Temporal Representation:</i>	The letter regarding impairment was written on 06/14/2004. A more specific time of impairment was not reported.

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