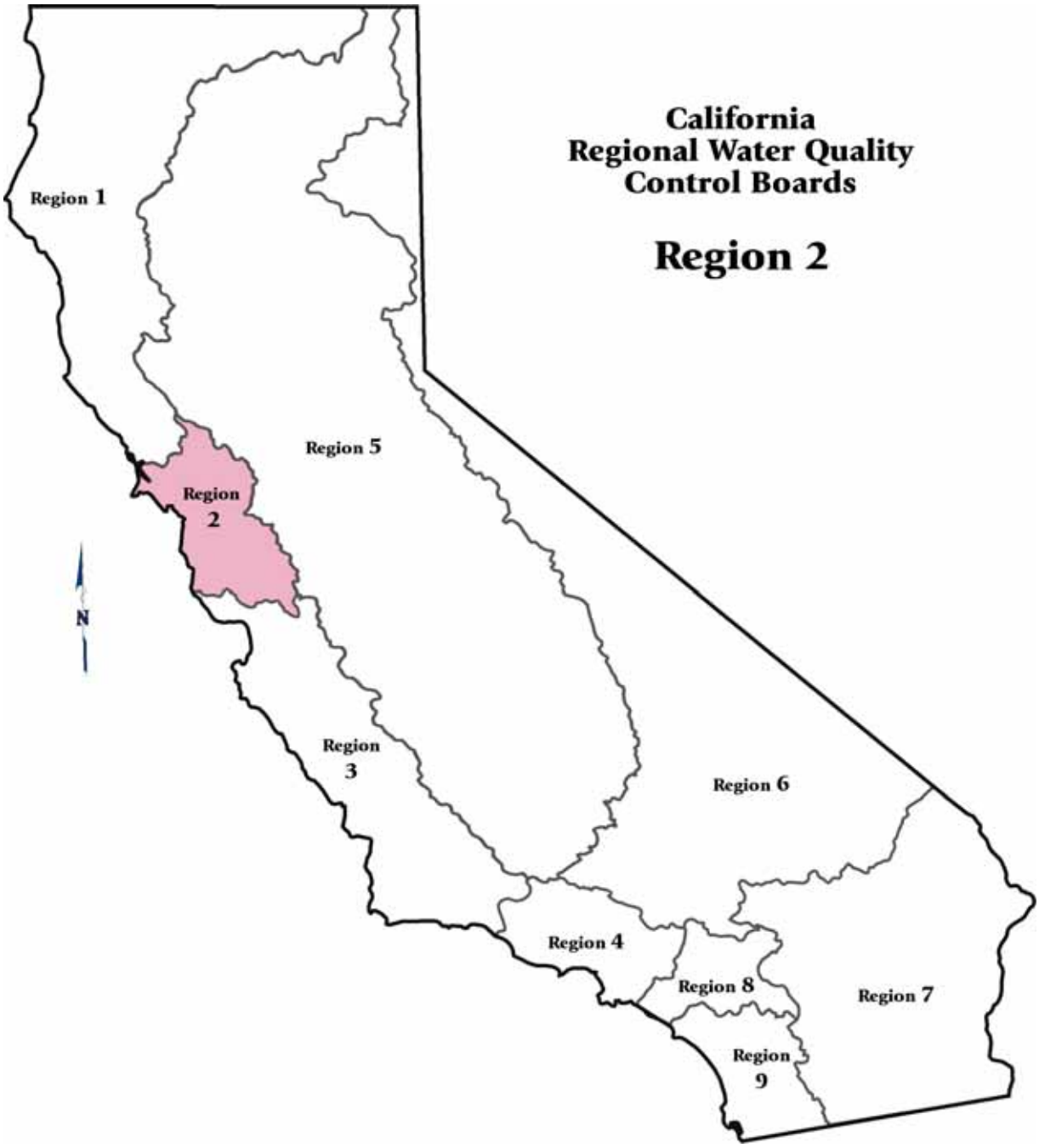
Fact Sheets Supporting
Revision of the Section 303(d) List



November 2006

Table of Contents

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San Francisco Bay Region (2)

New or Revised Fact Sheets

New or Revised Fact Sheets

San Francisco Bay Region (2)

LIST

Recommendations to place waters and pollutants on the section 303(d) List

Region 2

Water Segment:	Lake Chabot (Alameda Co)
Pollutant:	Chlordane
Decision:	List
Weight of Evidence:	This pollutant is being considered for placement on 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 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. Three of the 9 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 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 be placed 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:	AG - Agricultural Supply, 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:	Total Chlordane 30.0 ng/g - OEHHA Screening Value (Interim Health Advisory for Hg and PCB, Alameda County) (Brodberg and Pollock, 1999).
Data Used to Assess Water Quality:	Three out of 9 samples exceeded. A total of 9 composite samples were collected and analyzed from Lake Chabot: 3 channel catfish, 3 largemouth bass, and 3 carp. Three carp samples exceeded guideline

	(TSMP, 2002).
Spatial Representation:	One station.
Temporal Representation:	Samples were collected on 4/24/2001 and 6/6/2001.
Data Quality Assessment:	Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 2

Water Segment:	Lake Chabot (Alameda Co)
Pollutant:	DDT
Decision:	List
Weight of Evidence:	This pollutant is being considered for placement on 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 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. Two of the 9 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 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 be placed 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:	AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA)
Matrix:	Tissue
Water Quality Objective/ Water Quality Criterion:	San Francisco Bay 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:	Total DDT 100.0 ng/g - OEHHA Screening Value (Brodberg and Pollack, 1999).
Data Used to Assess Water Quality:	Two out of 9 samples exceeded. A total of 9 composite samples were collected and analyzed from Lake Chabot: 3 channel catfish, 3 largemouth bass, and 3 carp. Two carp samples exceeded guideline

	(TSMP, 2002).
Spatial Representation:	One station.
Temporal Representation:	Samples were collected on 4/24/2001 and 6/6/2001.
Data Quality Assessment:	Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 2

Water Segment:	Lake Chabot (Alameda Co)
Pollutant:	Dieldrin
Decision:	List
Weight of Evidence:	This pollutant is being considered for placement on 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 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. Six of the 9 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 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 be placed 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:	AG - Agricultural Supply, 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:	Dieldrin 2.0 ng/g - OEHHA Screening Value (Brodberg and Pollock, 1999).
Data Used to Assess Water Quality:	Six out of 9 samples exceeded. A total of 9 composite samples were collected and analyzed from Lake Chabot - 3 channel catfish, 3 largemouth bass, and 3 carp. Three carp and three channel catfish

	samples exceeded guideline (TSMP, 2002).
Spatial Representation:	One station.
Temporal Representation:	Samples were collected on 4/24/2001 and 6/6/2001.
Data Quality Assessment:	Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 2

Water Segment:	Lake Chabot (Alameda Co)
Pollutant:	Mercury
Decision:	List
Weight of Evidence:	This pollutant is being considered for placement on 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 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. Six of the 11 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 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 be placed 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:	AG - Agricultural Supply, 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:	Hg 0.3 µg/g - OEHHA Screening Value (Brodberg and Pollock, 1999).
Data Used to Assess Water Quality:	Six out of 11 samples exceeded. A total of 11 composite samples were collected and analyzed from Lake Chabot - 3 black crappie, 1 channel catfish, 3 largemouth bass, and 3 goldfish. Three goldfish and two largemouth bass samples exceeded the guideline (TSMP, 2002).

Spatial Representation:	One station.
Temporal Representation:	Samples were collected on 4/24/2001 and 6/6/2001.
Data Quality Assessment:	Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 2

Water Segment:	Lake Chabot (Alameda Co)
Pollutant:	Polychlorinated biphenyls
Decision:	List
Weight of Evidence:	This pollutant is being considered for placement on 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 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. Five of the 9 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 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 be placed 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:	AG - Agricultural Supply, 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:	PCB 20.0 ng/g - OEHHA Screening Value (Interim Health Advisory for Hg and PCB, Alameda County) (Brodberg and Pollock, 1999).
Data Used to Assess Water Quality:	Five out of 9 samples exceeded. A total of 9 composite samples were collected and analyzed from Lake Chabot: 3 channel catfish, 3

	largemouth bass, and 3 carp. Two carp and three channel catfish samples exceeded guideline (TSMP, 2002).
Spatial Representation:	One station.
Temporal Representation:	Samples were collected on 4/24/2001 and 6/6/2001.
Data Quality Assessment:	Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 2

Water Segment:	Pacific Ocean at Pillar Point
Pollutant:	Mercury
Decision:	List
Weight of Evidence:	This pollutant is being considered for placement on 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 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. Three of the 5 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 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 be placed 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:	From the California Ocean Plan: The concentration of organic materials in fish, shellfish or other marine resources used for human consumption shall not bioaccumulate to levels that are harmful to human health (SWRCB, 2001).
Evaluation Guideline:	Mercury 0.3 µg/g (OEHHA Screening Value) (Brodberg & Pollock, 1999).
Data Used to Assess Water Quality:	Three out of 5 samples exceeded. Five filet composite samples were collected from the following species: brown rockfish, lingcod, rosethorn rockfish, black rockfish, and spotfin surfperch. Brown rockfish, rosethorn rockfish, and lingcod exceeded guideline (TSMP, 2002).
Spatial Representation:	One station was sampled: San Mateo Coast.
Temporal Representation:	Samples were collected on May 9, 22 and 23, 2000.

Data Quality Assessment:	Data and Quality Assurance/Quality Control Report For Trace Metals - Coastal Fish Contaminant Project Year 2, 1999-2000. Department of Fish and Game.

Region 2

Water Segment:	Stevens Creek Reservoir
Pollutant:	Chlordane
Decision:	List
Weight of Evidence:	This pollutant is being considered for placement on 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 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. Three of the 6 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 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 be placed 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:	30.0 ng/g Total Chlordane - OEHHA Screening Value (Brodberg and Pollock, 1999).
Data Used to Assess Water Quality:	Three out of 6 samples exceeded. A total of 6 composite samples were collected and analyzed from Stevens Creek Reservoir. There were 3 channel catfish and 3 largemouth bass. Three channel catfish samples exceeded the guideline (TSMP, 2002).

Spatial Representation:	One station located off the point on the west shore of the lake 600 yards upstream of the dam.
Temporal Representation:	Samples were collected on 5/4/2001 and 6/6/2001.
Data Quality Assessment:	Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 2

Water Segment:	Stevens Creek Reservoir
Pollutant:	Dieldrin
Decision:	List
Weight of Evidence:	This pollutant is being considered for placement on 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 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. Three of the 6 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 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 be placed 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:	2.0 ng/g Dieldrin - OEHHA Screening Value (Brodberg & Pollock, 1999).
Data Used to Assess Water Quality:	Three out of 6 samples exceeded. A total of 6 composite samples were collected and analyzed from Stevens Creek Reservoir. There were 3 channel catfish and 3 largemouth bass. Three channel catfish samples exceeded guideline (TSMP, 2002).
Spatial Representation:	One station located off the point on the west shore of the lake 600 yards

	upstream of the dam.
Temporal Representation:	Samples were collected on 5/4/2001 and 6/6/2001.
Data Quality Assessment:	Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 2

Water Segment:	Stevens Creek Reservoir
Pollutant:	Mercury
Decision:	List
Weight of Evidence:	This pollutant is being considered for placement on 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 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. Nine of the 10 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 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 be placed 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:	0.3 µg/g Hg - OEHHA Screening Value (Interim Health Advisory for Hg and PCB, Santa Clara County) (Brodberg & Pollock, 1999).
Data Used to Assess Water Quality:	Nine out of 10 samples exceeded. A total of 7 composite samples, 4 black crappie and 3 largemouth bass, along with 3 individual samples of channel catfish were collected and analyzed from Stevens Creek

	Reservoir. One channel catfish sample did not exceed guideline (TSMP, 2002).
Spatial Representation:	One station located off the point on the west shore of the lake 600 yards upstream of the dam.
Temporal Representation:	Samples were collected on 5/4/2001 and 6/6/2001.
Data Quality Assessment:	Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 2

Water Segment:	Stevens Creek Reservoir
Pollutant:	Polychlorinated biphenyls
Decision:	List
Weight of Evidence:	This pollutant is being considered for placement on 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 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. Six of the 6 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 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 be placed 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:	20.0 ng/g PCB - OEHHA Screening Value (Interim Health Advisory for Hg and PCB, Santa Clara County) (Brodberg & Pollock, 1999).
Data Used to Assess Water Quality:	Six out of 6 samples exceeded. A total of 6 composite samples were collected and analyzed from Stevens Creek Reservoir. There were 3 channel catfish and 3 largemouth bass. All exceeded guideline (TSMP, 2002).

Spatial Representation:	One station located off the point on the west shore of the lake 600 yards upstream of the dam.
Temporal Representation:	Samples were collected on 5/4/2001 and 6/6/2001.
Data Quality Assessment:	Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

San Francisco Bay Region (2)

LIST AS BEING ADDRESSED

Recommendations to place waters and pollutants on the Being Addressed category of the section 303(d) List

Region 2

Water Segment:	Lagunitas Creek
Pollutant:	Pathogens
Decision:	List in Being Addressed Category
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. A TMDL has been developed and approved by USEPA and an approved implementation plan is expected to result in attainment of the standard. Based on the readily available information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination in the Water Quality Limited Segments Being Addressed portion of the section 303(d) list.
SWRCB Staff Recommendation:	After review of the available information for this recommendation, SWRCB staff conclude that the water body pollutant combination should be placed in the Water Quality Limited Segments Being Addressed category of the section 303(d) list because a TMDL has been approved.
Lines of Evidence:	

Line of Evidence	Remedial Program in Place
Beneficial Use	R1 - Water Contact Recreation
Data Used to Assess Water Quality:	A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Tomales Bay Pathogens TMDL was approved by RWQCB in September of 2005 and subsequently approved by USEPA.

Region 2

Water Segment: Stege Marsh

Pollutant: Chlordane

Decision: List in Being Addressed Category

Weight of Evidence: This pollutant is being considered for listing under sections 2.2, 3.6, and 3.10 of the Listing Policy. Under section 3.6 a single line of evidence is necessary to assess listing status while under section 3.10, 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 3.6 the site has significant sediment toxicity and the pollutant is likely to cause or contribute to the toxic effect. The benthic community is impacted and may be impacted by this pollutant. The RWQCB has adopted a cleanup order that will result in attainment of the water quality standard.

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 Being Addressed 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. Three of 3 samples exceeded the 6 ng/g ERM sediment quality guideline, 5 of 5 samples exhibit toxicity, and these exceed the allowable frequency listed in Table 3.1 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 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 for this recommendation, SWRCB staff conclude that the water body should be placed in the Water Quality Limited Segments Being Addressed category of the section 303(d) list because applicable water quality standards are exceeded and another program is addressing the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
Beneficial Use:	WE - Wetland 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 6 ng/g used (Long and Morgan, 1990).
Data Used to Assess Water Quality:	Three of 3 samples exceeded the 6 ng/g ERM sediment quality guideline (Hunt et al., 1988b).
Spatial Representation:	Data was synoptically collected with benthic community and toxicity measurements.
Temporal Representation:	Data was collected from 10/97-12/97.
Data Quality Assessment:	Used BPTCP QA/QC. 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.

Numeric Line of Evidence	Toxicity
Beneficial Use:	WE - Wetland 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. 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.
Data Used to Assess Water Quality:	There was 0-1% amphipod survival in 5 of 5 tests. Three of 3 samples with significant urchin toxicity (Hunt et al., 1988b).
Spatial Representation:	Data was spatially collected.
Temporal Representation:	Data was collected from 10/97-12/97.
Data Quality Assessment:	Used BPTCP QA/QC. 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.

Numeric Line of Evidence	Population/Community Degradation
Beneficial Use:	WE - Wetland 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. 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 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:	Relative benthic index = 0.00 (2 benthic samples); (Hunt et al., 1998).
Spatial Representation:	Data was spatially collected.
Temporal Representation:	Data was collected from 10/97-12/97.
Data Quality Assessment:	Used BPTCP QA/QC. 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.

Line of Evidence	Remedial Program in Place
Beneficial Use	WE - Wetland Habitat
Information Used to Assess Water Quality:	Stege Marsh is identified as a toxic hot spot in the SWRCB Consolidated Toxic Hot Spot Cleanup Plan (SWRCB Resolution No. 99-065). This plan is being implemented by the San Francisco Bay RWQCB through Cleanup and Abatement Orders.

Region 2

Water Segment: Stege Marsh

Pollutant: Copper

Decision: List in Being Addressed Category

Weight of Evidence: This pollutant is being considered for listing under sections 2.2, 3.6, and 3.10 of the Listing Policy. Under section 3.6 a single line of evidence is necessary to assess listing status while under section 3.10, 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 3.6 the site has significant sediment toxicity and the pollutant is likely to cause or contribute to the toxic effect. The benthic community is impacted and may be impacted by this pollutant. The RWQCB has adopted a cleanup order that will result in attainment of the water quality standard.

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 Being Addressed 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. Three of 3 samples exceeded the 270 µg/g ERM sediment quality guideline, 5 of 5 samples exhibit toxicity, and these exceed the allowable frequency listed in Table 3.1 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 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 for this recommendation, SWRCB staff conclude that the water body should be placed in the Water Quality Limited Segments Being Addressed category of the section 303(d) list because applicable water quality standards are exceeded and another program is addressing the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
Beneficial Use:	WE - Wetland 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:	Three of 3 samples exceeded 270 µg/g ERM sediment quality guideline (Hunt et al., 1988b).
Spatial Representation:	Data was synoptically collected with benthic community and toxicity measurements.
Temporal Representation:	Data was collected from 10/97-12/97.
Data Quality Assessment:	Used BPTCP QA/QC. 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.

Numeric Line of Evidence	Toxicity
Beneficial Use:	WE - Wetland 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. 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.
Data Used to Assess Water Quality:	There was 0-1% amphipod survival in 5 of 5 tests. Three of 3 samples with significant urchin toxicity (Hunt et al., 1988b).
Spatial Representation:	Data was spatially collected.
Temporal Representation:	Data was collected from 10/97-12/97.
Data Quality Assessment:	Used BPTCP QA/QC. 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.

Numeric Line of Evidence	Population/Community Degradation
Beneficial Use:	WE - Wetland 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. 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 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:	Relative benthic index = 0.00 (2 benthic samples); (Hunt et al., 1998).
Spatial Representation:	Data was spatially collected.
Temporal Representation:	Data was collected from 10/97-12/97.
Data Quality Assessment:	Used BPTCP QA/QC. 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.

Line of Evidence	Remedial Program in Place
Beneficial Use	WE - Wetland Habitat
Information Used to Assess Water Quality:	Stege Marsh is identified as a toxic hot spot in the SWRCB Consolidated Toxic Hot Spot Cleanup Plan (SWRCB Resolution No. 99-065). This plan is being implemented by the San Francisco Bay RWQCB through Cleanup and Abatement Orders.

Region 2

Water Segment:	Stege Marsh
Pollutant:	Dacthal
Decision:	List in Being Addressed Category
Weight of Evidence:	This pollutant is being considered for listing under sections 2.2, 3.6, and 3.10 of the Listing Policy. Under section 3.6 a single line of evidence is necessary to assess listing status while under section 3.10, 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. Based on section 3.6 the site has significant sediment toxicity and it cannot be determined if the pollutant is likely to cause or contribute to the toxic effect. The benthic community is impacted but it is unknown if it is impacted by this pollutant. The RWQCB has adopted a cleanup order that will result in attainment of the water quality standard. Based on the readily available information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination in the Water Quality Limited Segments Being Addressed portion of the section 303(d) list. This conclusion is based on the staff findings that: 1. A sediment quality 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. Three of 3 samples exhibited significant urchin toxicity. The water body appears to have toxicity and the pollutant may be contributing to or causing this toxicity. 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 information for this recommendation, SWRCB staff conclude that the water body pollutant combination should be placed in the Water Quality Limited Segments Being Addressed category of the section 303(d) list because a TMDL has been approved.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
Beneficial Use:	WE - Wetland 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:	No applicable sediment guideline is available.
Data Used to Assess Water Quality:	Five samples ranging in concentration from ND to 11.1 ng/g (Hunt et al., 1988b).
Spatial Representation:	Data was synoptically collected with benthic community and toxicity measurements.
Temporal Representation:	Data was collected from 10/97-12/97.
Data Quality Assessment:	Used BPTCP QA/QC. 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.

Numeric Line of Evidence	Toxicity
Beneficial Use:	WE - Wetland 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. 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.
Data Used to Assess Water Quality:	There was 0-1% amphipod survival in 5 of 5 tests. Three of 3 samples with significant urchin toxicity (Hunt et al., 1988b).
Spatial Representation:	Data was spatially collected.
Temporal Representation:	Data was collected from 10/97-12/97.
Data Quality Assessment:	Used BPTCP QA/QC. 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.

Numeric Line of Evidence	Population/Community Degradation
Beneficial Use:	WE - Wetland 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.

	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 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:	Relative benthic index = 0.00 (2 benthic samples); (Hunt et al., 1998).
Spatial Representation:	Data was spatially collected.
Temporal Representation:	Data was collected from 10/97-12/97.
Data Quality Assessment:	Used BPTCP QA/QC. 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.

Line of Evidence	Remedial Program in Place
Beneficial Use	WE - Wetland Habitat
Information Used to Assess Water Quality:	Stege Marsh is identified as a toxic hot spot in the SWRCB Consolidated Toxic Hot Spot Cleanup Plan (SWRCB Resolution No. 99-065). This plan is being implemented by the San Francisco Bay RWQCB through Cleanup and Abatement Orders.

Region 2

Water Segment:	Stege Marsh
Pollutant:	Dieldrin
Decision:	List in Being Addressed Category
Weight of Evidence:	This pollutant is being considered for listing under sections 2.2, 3.6, and 3.10 of the Listing Policy. Under section 3.6 a single line of evidence is necessary to assess listing status while under section 3.10, 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 3.6 the site has significant sediment toxicity and the pollutant is likely to cause or contribute to the toxic effect. The benthic community is impacted and may be impacted by this pollutant. 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. Two of 3 samples exceeded the sediment guideline, 5 of 5 samples exhibit toxicity, and these exceed the allowable frequency listed in Table 3.1 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 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 for this recommendation, SWRCB staff conclude that the water body should be placed in the Water Quality Limited Segments Being Addressed category of the section 303(d) list because applicable water quality standards are exceeded and another program is addressing the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
Beneficial Use:	WE - Wetland 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 8 ng/g was used (Long et al., 1995).
Data Used to Assess Water Quality:	Two of 3 samples exceeded the ERM sediment quality guideline (Hunt et al., 1988b).
Spatial Representation:	Data was synoptically collected with benthic community and toxicity measurements.
Temporal Representation:	Data was collected from 10/97-12/97.
Data Quality Assessment:	Used BPTCP QA/QC. 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.

Numeric Line of Evidence	Toxicity
Beneficial Use:	WE - Wetland 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. 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.
Data Used to Assess Water Quality:	There was 0-1% amphipod survival in 5 of 5 tests. Three of 3 samples with significant urchin toxicity (Hunt et al., 1988b).
Spatial Representation:	Data was spatially collected.
Temporal Representation:	Data was collected from 10/97-12/97.
Data Quality Assessment:	Used BPTCP QA/QC. 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.

Numeric Line of Evidence	Population/Community Degradation
Beneficial Use:	WE - Wetland 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.

	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 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:	Relative benthic index = 0.00 (2 benthic samples); (Hunt et al., 1998).
Spatial Representation:	Data was spatially collected.
Temporal Representation:	Data was collected from 10/97-12/97.
Data Quality Assessment:	Used BPTCP QA/QC. 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.

Line of Evidence	Remedial Program in Place
Beneficial Use	WE - Wetland Habitat
Information Used to Assess Water Quality:	Stege Marsh is identified as a toxic hot spot in the SWRCB Consolidated Toxic Hot Spot Cleanup Plan (SWRCB Resolution No. 99-065). This plan is being implemented by the San Francisco Bay RWQCB through Cleanup and Abatement Orders.

Region 2

Water Segment: Stege Marsh

Pollutant: Mercury

Decision: List in Being Addressed Category

Weight of Evidence: This pollutant is being considered for listing under sections 2.2, 3.6, and 3.10 of the Listing Policy. Under section 3.6 a single line of evidence is necessary to assess listing status while under section 3.10, 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 3.6 the site has significant sediment toxicity and the pollutant is likely to cause or contribute to the toxic effect. The benthic community is impacted and may be impacted by this pollutant. The RWQCB has adopted a cleanup order that will result in attainment of the water quality standard.

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 Being Addressed 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 3 samples exceeded the sediment guideline, 5 of 5 samples exhibit toxicity, and these exceed the allowable frequency listed in Table 3.1 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 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 for this recommendation, SWRCB staff conclude that the water body should be placed in the Water Quality Limited Segments Being Addressed category of the section 303(d) list because applicable water quality standards are exceeded and another program is addressing the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
Beneficial Use:	WE - Wetland 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:	Sediment guideline of 2.1 µg/g was used (PTI Environmental Services, 1991).
Data Used to Assess Water Quality:	Two of 3 samples exceeded guideline (Hunt et al., 1988b).
Spatial Representation:	Data was synoptically collected with benthic community and toxicity measurements.
Temporal Representation:	Data was collected from 10/97-12/97.
Data Quality Assessment:	Used BPTCP QA/QC. 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.

Numeric Line of Evidence	Toxicity
Beneficial Use:	WE - Wetland 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. 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.
Data Used to Assess Water Quality:	There was 0-1% amphipod survival in 5 of 5 tests. Three of 3 samples with significant urchin toxicity (Hunt et al., 1988b).
Spatial Representation:	Data was spatially collected.
Temporal Representation:	Data was collected from 10/97-12/97.
Data Quality Assessment:	Used BPTCP QA/QC. 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.

Numeric Line of Evidence	Population/Community Degradation
Beneficial Use:	WE - Wetland 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. 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 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:	Relative benthic index = 0.00 (2 benthic samples); (Hunt et al., 1998).
Spatial Representation:	Data was spatially collected.
Temporal Representation:	Data was collected from 10/97-12/97.
Data Quality Assessment:	Used BPTCP QA/QC. 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.

Line of Evidence	Remedial Program in Place
Beneficial Use	WE - Wetland Habitat
Information Used to Assess Water Quality:	Stege Marsh is identified as a toxic hot spot in the SWRCB Consolidated Toxic Hot Spot Cleanup Plan (SWRCB Resolution No. 99-065). This plan is being implemented by the San Francisco Bay RWQCB through Cleanup and Abatement Orders.

Region 2

Water Segment: Stege Marsh

Pollutant: Polychlorinated biphenyls

Decision: List in Being Addressed Category

Weight of Evidence: This pollutant is being considered for listing under sections 2.2, 3.6, and 3.10 of the Listing Policy. Under section 3.6 a single line of evidence is necessary to assess listing status while under section 3.10, 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 3.6 the site has significant sediment toxicity and the pollutant is likely to cause of contribute to the toxic effect. The benthic community is impacted and may be impacted by this pollutant. The RWQCB has adopted a cleanup order that will result in attainment of the water quality standard.

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 Being Addressed 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 3 samples exceeded the sediment guideline, 5 of 5 samples exhibit toxicity, and these exceed the allowable frequency listed in Table 3.1 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 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 for this recommendation, SWRCB staff conclude that the water body should be placed in the Water Quality Limited Segments Being Addressed category of the section 303(d) list because applicable water quality standards are exceeded and another program is addressing the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
Beneficial Use:	WE - Wetland 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. 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:	Sediment guideline of 400 ng/g for PCBs was used (MacDonald et al., 2000).
Data Used to Assess Water Quality:	Two of 3 samples exceeded sediment guideline (Hunt et al., 1998b).
Spatial Representation:	Data were synoptically collected with benthic community and toxicity measurements.
Temporal Representation:	Data were collected from 10/97-12/97.
Data Quality Assessment:	Used BPTCP QA/QC. 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.

Numeric Line of Evidence	Toxicity
Beneficial Use:	WE - Wetland 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. 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.
Data Used to Assess Water Quality:	There was 0-1% amphipod survival in 5 of 5 tests. Three of 3 samples with significant urchin toxicity (Hunt et al., 1988b).
Spatial Representation:	Data was spatially collected.
Temporal Representation:	Data was collected from 10/97-12/97.
Data Quality Assessment:	Used BPTCP QA/QC. 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.

Numeric Line of Evidence	Population/Community Degradation
Beneficial Use:	WE - Wetland 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. 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 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:	Relative benthic index = 0.00 (2 benthic samples); (Hunt et al., 1998).
Spatial Representation:	Data was spatially collected.
Temporal Representation:	Data was collected from 10/97-12/97.
Data Quality Assessment:	Used BPTCP QA/QC. 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.

Line of Evidence	Remedial Program in Place
Beneficial Use	WE - Wetland Habitat
Information Used to Assess Water Quality:	Stege Marsh is identified as a toxic hot spot in the SWRCB Consolidated Toxic Hot Spot Cleanup Plan (SWRCB Resolution No. 99-065). This plan is being implemented by the San Francisco Bay RWQCB through Cleanup and Abatement Orders.

Region 2

Water Segment: Stege Marsh

Pollutant: Zinc

Decision: List in Being Addressed Category

Weight of Evidence: This pollutant is being considered for listing under sections 2.2, 3.6, and 3.10 of the Listing Policy. Under section 3.6 a single line of evidence is necessary to assess listing status while under section 3.10, 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 3.6 the site has significant sediment toxicity and the pollutant is likely to cause or contribute to the toxic effect. The benthic community is impacted and may be impacted by this pollutant. The RWQCB has adopted a cleanup order that will result in attainment of the water quality standard.

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 Being Addressed 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 3 samples exceeded the sediment guideline, 5 of 5 samples exhibit toxicity, and these exceed the allowable frequency listed in Table 3.1 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 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 for this recommendation, SWRCB staff conclude that the water body should be placed in the Water Quality Limited Segments Being Addressed category of the section 303(d) list because applicable water quality standards are exceeded and another program is addressing the problem.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Sediment
Beneficial Use:	WE - Wetland 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. 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 410 µg/g used (Long et al., 1995).
Data Used to Assess Water Quality:	Two of 3 samples exceed ERM (Hunt et al., 1988b).
Spatial Representation:	Data was synoptically collected with benthic community and toxicity measurements.
Temporal Representation:	Data was collected from 10/97-12/97.
Data Quality Assessment:	Used BPTCP QA/QC. 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.

Numeric Line of Evidence	Toxicity
Beneficial Use:	WE - Wetland 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. 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.
Data Used to Assess Water Quality:	There was 0-1% amphipod survival in 5 of 5 tests. Three of 3 samples with significant urchin toxicity (Hunt et al., 1988b).
Spatial Representation:	Data was spatially collected.
Temporal Representation:	Data was collected from 10/97-12/97.
Data Quality Assessment:	Used BPTCP QA/QC. 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.

Numeric Line of Evidence	Population/Community Degradation
Beneficial Use:	WE - Wetland 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. 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 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:	Relative benthic index = 0.00 (2 benthic samples); (Hunt et al., 1998).
Spatial Representation:	Data was spatially collected.
Temporal Representation:	Data was collected from 10/97-12/97.
Data Quality Assessment:	Used BPTCP QA/QC. 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.

Line of Evidence	Remedial Program in Place
Beneficial Use	WE - Wetland Habitat
Information Used to Assess Water Quality:	Stege Marsh is identified as a toxic hot spot in the SWRCB Consolidated Toxic Hot Spot Cleanup Plan (SWRCB Resolution No. 99-065). This plan is being implemented by the San Francisco Bay RWQCB through Cleanup and Abatement Orders.

Region 2

Water Segment:	Tomales Bay
Pollutant:	Pathogens
Decision:	List in Being Addressed Category
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. A TMDL has been developed and approved by USEPA and an approved implementation plan is expected to result in attainment of the standard. Based on the readily available information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination in the Water Quality Limited Segments Being Addressed portion of the section 303(d) list.
SWRCB Staff Recommendation:	After review of the available information for this recommendation, SWRCB staff conclude that the water body pollutant combination should be placed in the Water Quality Limited Segments Being Addressed category of the section 303(d) list because a TMDL has been approved.
Lines of Evidence:	

Line of Evidence	Remedial Program in Place
Beneficial Use	CM - Commercial and Sport Fishing (CA), ES - Estuarine Habitat
Data Used to Assess Water Quality:	A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Tomales Bay Pathogens TMDL was approved by RWQCB in September of 2005 and subsequently approved by USEPA.

San Francisco Bay Region (2)

DELIST

Recommendations to remove waters and pollutants from the section 303(d) List

Region 2

Water Segment:	San Francisco Bay, Lower
Pollutant:	Nickel
Decision:	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. Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification available 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. None of the 70 samples exceeded the water quality objective; therefore the allowable frequency listed in Table 4.1 of the Listing Policy was not exceeded. 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, State Water Board staff concludes that the water body-pollutant combination should be removed from the section 303(d) list because applicable water quality standards have not been exceeded. .

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	ES - Estuarine Habitat
Matrix:	Water
Water Quality Objective/ Water Quality Criterion:	The Regional Water Board Basin Plan contains water quality objectives for nickel in San Francisco Bay - Lower of 8.2µg/L, 4-day average and, 74µg/L 1-hour average. These objectives were approved by USEPA in January 2005 and are contained in the Regional Board Basin Plan in Table 3-3.
Data Used to Assess Water Quality:	Taken from the San Francisco Bay Estuary Institute (SFEI) - Regional Monitoring Program (RMP). None of the 70 samples exceeded the site-specific water quality objective
Spatial Representation:	21 sampling locations
Temporal Representation:	Samples were taken from 1993 to 2003 with three samples taken each year, on average. A total of 70 samples were taken during the aforementioned time period.
QA/QC Equivalent:	SFEI RMP OA/QC program

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San Francisco Bay Region (2)

Original Fact Sheets

Fact Sheets Not Changed
from September 2005 Version

San Francisco Bay Region (2)

Recommendations to place waters and pollutants on the section 303(d) List

Region 2

Water Segment:	Anderson Reservoir
Pollutant:	Mercury
Decision:	List
Weight of Evidence:	This pollutant is being considered for placement on 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 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. Seven out of 9 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 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 be placed 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:	AG - Agricultural Supply, 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:	0.3 µg/g Hg (OEHHA Screening Value) (Brodberg and Pollock, 1999).
Data Used to Assess Water Quality:	Seven out of 9 samples exceeded. A total of 9 composite samples were collected and analyzed from Anderson Reservoir: 3 black crappie, 3 carp, and 3 largemouth bass. Two black crappie samples did not exceed (TSMP, 2002).
Spatial Representation:	One station located near the face of dam.

Temporal Representation:	All samples were collected on 9/13/2001.
Data Quality Assessment:	Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 2

Water Segment:	Anderson Reservoir
Pollutant:	Polychlorinated biphenyls
Decision:	List
Weight of Evidence:	This pollutant is being considered for placement on 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 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. Three out of 6 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 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 be placed 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:	AG - Agricultural Supply, 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:	PCB 20.0 ng/g (OEHHA Screening Value) (Brodberg and Pollock, 1999).
Data Used to Assess Water Quality:	Three out of 6 samples exceeded. A total of 6 composite samples were collected and analyzed from Anderson Reservoir - 3 black crappie and 3 carp. All carp samples exceeded guideline (TSMP, 2002).
Spatial Representation:	One station located near the face of dam.

Temporal Representation:	All samples were collected on 9/13/2001.
Data Quality Assessment:	Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 2

Water Segment:	Bon Tempe Reservoir
Pollutant:	Mercury
Decision:	List
Weight of Evidence:	This pollutant is being considered for placement on 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 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. Two of the 2 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 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 be placed 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:	Mercury 0.3 µg/g - OEHHA Screening Value (Interim Health Advisory for Hg, Marin County) (Brodberg and Pollock, 1999).
Data Used to Assess Water Quality:	Two out of 2 samples exceeded. Two individual samples of largemouth bass were collected and analyzed from Bon Tempe Reservoir. Both exceeded the guideline (TSMP, 2002).
Spatial Representation:	One station located around the shoreline of the lake.

Temporal Representation:	All samples were collected on 9/20/2001.
Data Quality Assessment:	Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 2

Water Segment:	Del Valle Reservoir
Pollutant:	Mercury
Decision:	List
Weight of Evidence:	This pollutant is being considered for placement on 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 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. Four of the 12 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 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 be placed 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 (Brodberg and Pollock, 1999).
Data Used to Assess Water Quality:	Four out of 12 samples exceeded. A total of 12 composite samples were collected and analyzed from Del Valle Reservoir - 3 bluegill, 3 channel catfish, 3 largemouth bass, and 3 redear sunfish. One catfish and all three largemouth bass samples exceeded the Hg guideline (TSMP,

	2002).
Spatial Representation:	One station located in upper end of reservoir south of boat ramp.
Temporal Representation:	All samples were collected on 4/25/2001.
Data Quality Assessment:	Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 2

Water Segment:	Del Valle Reservoir
Pollutant:	Polychlorinated biphenyls
Decision:	List
Weight of Evidence:	This pollutant is being considered for placement on 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 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. Three of the 3 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 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 be placed 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:	20.0 ng/g PCB - OEHHA Screening Value (Interim Health Advisory for Hg and PCB, Alameda County) (Brodberg and Pollock, 1999).
Data Used to Assess Water Quality:	Three out of 3 samples exceeded. A total of 3 channel catfish composite samples were collected and analyzed from Del Valle Reservoir. All samples exceeded guideline (TSMP, 2002).
Spatial Representation:	One station located in upper end of reservoir south of boat ramp.

Temporal Representation:	All samples were collected on 4/25/2001.
Data Quality Assessment:	Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 2

Water Segment:	Islais Creek
Pollutant:	Sediment Toxicity
Decision:	List
Weight of Evidence:	This pollutant is being considered for placement on the section 303(d) list under section 3.6 of the Listing Policy. Under section 3.6 a water segment can be placed on the 303(d) list if the water segment exhibits significant toxicity and the observed toxicity is associated with a pollutant or pollutants. Under section 3.6 a water body segment may also be listed for toxicity alone. Three lines of evidence are available in the administrative record to assess this pollutant. A sufficient number of toxicity samples exceed the water quality guidelines. 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 22 samples exhibited significant amphipod toxicity, 4 of 5 samples exhibited significant sea urchin toxicity, the benthic community is considered to be degraded and this exceeds the allowable frequency listed in Table 3.1 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 be placed on the section 303(d) list because applicable water quality toxicity guidelines are exceeded and a pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence	Population/Community Degradation
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. 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.
Data Used to Assess Water Quality:	Relative benthic index = 0.22, 0.25, 0.43 (3 benthic gradient samples) (Hunt et al., 1998b).
Spatial Representation:	Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.
Temporal Representation:	Data was collected from 9/94 - 9/97.
Data Quality Assessment:	BPTCP Quality Assurance Project Plan.

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

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). 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 7 of 18 samples (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.
Environmental Conditions:	Samples were collected in both wet and dry seasons.
Data Quality Assessment:	Methods used were equivalent to those used in the BPTCP QAPP (Stephenson, et al., 1994). All reported data met QA requirements.

Region 2

Water Segment:	Lafayette Reservoir
Pollutant:	Mercury
Decision:	List
Weight of Evidence:	This pollutant is being considered for placement on 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 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. Five of the 10 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 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 be placed 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:	0.3 µg/g Hg - OEHHA Screening Value (Interim Health Advisory for Hg and PCB, Contra Costa County) (Brodberg and Pollock, 1999).
Data Used to Assess Water Quality:	Five out of 10 samples exceeded. A total of 10 composite samples were collected and analyzed from Lafayette Reservoir - 3 black crappie, 1 channel catfish, 3 largemouth bass, and 3 goldfish. Three goldfish and two largemouth bass samples exceeded the guideline (TSMP, 2002).

Spatial Representation:	One station located on the lake.
Temporal Representation:	All samples were collected on 9/9/2002.
Data Quality Assessment:	Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 2

Water Segment:	Lafayette Reservoir
Pollutant:	Polychlorinated biphenyls
Decision:	List
Weight of Evidence:	This pollutant is being considered for placement on 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 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. Two of the 3 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 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 be placed 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:	20.0 ng/g PCB - OEHHA Screening Value (Interim Health Advisory for Hg and PCB, Contra Costa County) (Brodberg and Pollock, 1999).
Data Used to Assess Water Quality:	Two out of 3 samples exceeded. A total of 3 composite samples were collected and analyzed from Lafayette Reservoir - 1 each: channel catfish, goldfish, and largemouth bass. Channel catfish and goldfish samples exceeded guideline (TSMP, 2002).

Spatial Representation:	One station located on the lake.
Temporal Representation:	All samples were collected on 9/9/2002.
Data Quality Assessment:	Environmental Chemical Quality Assurance and Data Report for the Toxic Substances Monitoring Program. 2001-2002. Department of Fish and Game.

Region 2

Water Segment:	Nicasio Reservoir
Pollutant:	Mercury
Decision:	List
Weight of Evidence:	This pollutant is being considered for placement on 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 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. Two of the 9 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 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 be placed 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 (Brodberg & Pollock, 1999).
Data Used to Assess Water Quality:	Two out of 9 samples exceeded. A total of 9 composite samples were collected and analyzed from Nicasio Reservoir: 3 bluegill, 3 carp, and 3 largemouth bass. Two largemouth bass samples exceeded guideline (TSMP, 2002).

Spatial Representation:	One station.
Temporal Representation:	All samples were collected on 9/19/2001.
Data Quality Assessment:	Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 2

Water Segment:	Oakland Inner Harbor (Fruitvale Site, part of SF Bay, Central)
Pollutant:	Sediment Toxicity
Decision:	List
Weight of Evidence:	Toxicity is being considered for placement on the section 303(d) list under section 3.6 of the Listing Policy. Under section 3.6 a minimum of one line of evidence is necessary to assess listing status. One line of evidence is available in the administrative record to assess this pollutant. Both amphipod toxicity samples exhibit significant toxicity. 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. Two of 4 samples exceeded the water quality objective and this exceeds the allowable frequency listed in Table 3.1 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 be placed 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
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:	Reference envelope approach used.

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

Region 2

Water Segment:	San Pablo Reservoir
Pollutant:	Chlordane
Decision:	List
Weight of Evidence:	This pollutant is being considered for placement on the section 303(d) list under section 3.5 of the Listing Policy. Under section 3.5 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 sufficient number of samples exceed the 30 ng/L OEHHA tissue screening value of total chlordane. Under section 3.5 of the Listing Policy any water body segment where tissue pollutant levels in organisms exceed a pollutant-specific evaluation guideline shall be placed on 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 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. Six of 9 samples exceeded the 30 ng/L OEHHA tissue-screening value of total chlordane and this exceeds the allowable frequency listed in Table 3.1 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 be placed 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:	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:	Total Chlordane 30.0 ng/g - OEHHA Screening Value (Brodberg & Pollock, 1999).
Data Used to Assess Water Quality:	Six out of 9 samples exceeded. A total of 9 composite samples were collected and analyzed from San Pablo Reservoir - 3 black crappie, 3 channel catfish and 3 carp. Three carp and three channel catfish samples exceeded guideline (TSMP, 2002).
Spatial Representation:	One station located in upper half of the reservoir
Temporal Representation:	All samples were collected on 4/17/2000.
Data Quality Assessment:	Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 2

Water Segment:	San Pablo Reservoir
Pollutant:	Dieldrin
Decision:	List
Weight of Evidence:	This pollutant is being considered for placement on 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 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. Nine of the 9 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 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 be placed 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:	Dieldrin 2.0 ng/g (OEHHA Screening Value) (Brodberg & Pollock, 1999).
Data Used to Assess Water Quality:	Nine out of 9 samples exceeded. A total of 9 composite samples were collected and analyzed from Lake Chabot: 3 channel catfish, 3 largemouth bass, and 3 carp. All samples exceeded guideline (TSMP, 2002).

Spatial Representation:	One station located in upper half of the reservoir.
Temporal Representation:	All samples were collected on 4/17/2000.
Data Quality Assessment:	Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 2

Water Segment:	San Pablo Reservoir
Pollutant:	Heptachlor epoxide
Decision:	List
Weight of Evidence:	This pollutant is being considered for placement on 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 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. Four of the 9 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 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 be placed 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:	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:	Heptachlor Epoxide 4.0 ng/g (OEHHA Screening Value).
Data Used to Assess Water Quality:	Four out of 9 samples exceeded. A total of 9 composite samples were collected and analyzed from San Pablo Reservoir - 3 black crappie, 3 channel catfish and 3 carp. Two carp and two channel catfish samples exceeded guideline (TSMP, 2002).
Spatial Representation:	One station located in upper half of the reservoir.

Temporal Representation:	All samples were collected on 4/17/2000.
Data Quality Assessment:	Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 2

Water Segment:	San Pablo Reservoir
Pollutant:	Polychlorinated biphenyls
Decision:	List
Weight of Evidence:	This pollutant is being considered for placement on 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 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. Six of the 9 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 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 be placed 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:	PCB 20.0 ng/g (OEHHA Screening Value) (Brodberg & Pollock, 1999).
Data Used to Assess Water Quality:	Six out of 9 samples exceeded. A total of 9 composite samples were collected and analyzed from San Pablo Reservoir - 3 black crappie, 3 channel catfish and 3 carp. Three carp and three channel catfish samples exceeded guideline (TSMP, 2002).

Spatial Representation:	One station located in upper half of the reservoir.
Temporal Representation:	All samples were collected on 4/17/2000.
Data Quality Assessment:	Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 2

Water Segment:	San Pablo Reservoir
Pollutant:	Toxaphene
Decision:	List
Weight of Evidence:	This pollutant is being considered for placement on 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 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. Four of the 9 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 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 be placed 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:	Toxaphene 30.0 ng/g (OEHHA Screening Value) (Brodberg & Pollock, 1999).
Data Used to Assess Water Quality:	Four out of 9 samples exceeded. A total of 9 composite samples were collected and analyzed from San Pablo Reservoir: 3 black crappie, 3 channel catfish and 3 carp. Two carp and two channel catfish samples

	exceeded guideline (TSMP, 2002).
Spatial Representation:	One station located in upper half of the reservoir.
Temporal Representation:	All samples were collected on 4/17/2000.
Data Quality Assessment:	Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 2

Water Segment:	Shadow Cliffs Reservoir
Pollutant:	Mercury
Decision:	List
Weight of Evidence:	This pollutant is being considered for placement on 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 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. Two of the 4 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 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 be placed 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 (Brodberg & Pollock, 1999).
Data Used to Assess Water Quality:	Two out of 4 samples exceeded. A total of 2 composite samples, 1 carp and 1 channel catfish, along with 2 individual samples of largemouth bass were collected and analyzed from Shadow Cliffs Reservoir. Both largemouth bass samples exceeded guideline (TSMP, 2002).

Spatial Representation:	One station.
Temporal Representation:	All samples were collected on 8/13/2002.
Data Quality Assessment:	Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 2

Water Segment: Shadow Cliffs Reservoir

Pollutant: Polychlorinated biphenyls

Decision: List

Weight of Evidence: This pollutant is being considered for placement on 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 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. Two of the 4 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 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 be placed 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:	PCB 20.0 ng/g - OEHHA Screening Value (Interim Health Advisory for Hg and PCB, Alameda County (Brodberg & Pollock, 1999).
Data Used to Assess Water Quality:	Two out of 2 samples exceeded. A total of 2 composite samples were collected and analyzed from Shadow Cliffs Reservoir - 1 carp and 1 channel catfish. Both samples exceeded guideline (TSMP, 2002).
Spatial Representation:	One station.

Temporal Representation:	All samples were collected on 8/13/2002.
Data Quality Assessment:	Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 2

Water Segment:	Soulejule Reservoir
Pollutant:	Mercury
Decision:	List
Weight of Evidence:	This pollutant is being considered for placement on 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 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. Twelve of the 14 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 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 be placed 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:	Mercury 0.3 µg/g (OEHHA Screening Value).
Data Used to Assess Water Quality:	Twelve out of 14 samples exceeded. A total of 8 composite samples were collected and analyzed from Soulejule Reservoir - 3 black crappie and 5 largemouth bass. In addition, 4 individual largemouth bass and 2 individual channel catfish were sampled. Two channel catfish samples did not exceed (TSMP, 2002).

Spatial Representation:	One station.
Temporal Representation:	All samples were collected on 9/20/2001.
Data Quality Assessment:	Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 2

Water Segment:	Soulejule Reservoir
Pollutant:	Polychlorinated biphenyls
Decision:	List
Weight of Evidence:	This pollutant is being considered for placement on 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 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. Two of the 2 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 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 be placed 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:	Mercury 0.3 µg/g (OEHHA Screening Value).
Data Used to Assess Water Quality:	Two out of 2 samples exceeded. Representation: two individual channel catfish samples were collected and analyzed from Soulejule Reservoir. Both channel catfish samples exceeded guideline (TSMP, 2002).
Spatial Representation:	One station located on the lake.

Temporal Representation:	All samples were collected on 9/20/2001.
Data Quality Assessment:	Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish and Game.

Region 2

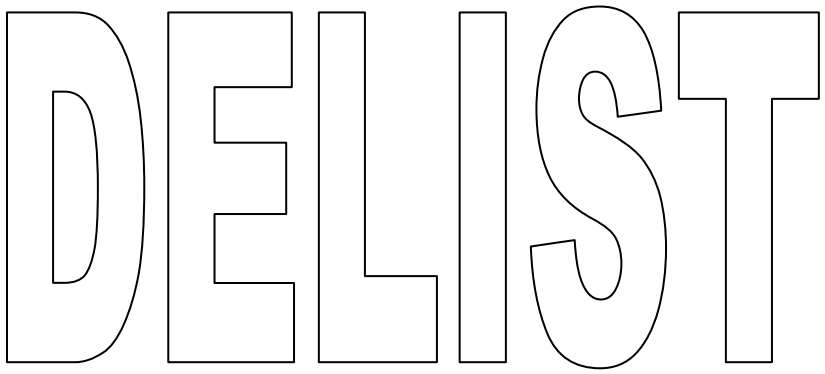
Water Segment:	Stevens Creek
Pollutant:	Toxicity
Decision:	List
Weight of Evidence:	This pollutant is being considered for placement on the section 303(d) list under section 3.6 of the Listing Policy. Under section 3.6 a single line of evidence is necessary to assess listing status. One line of evidence is available in the administrative record to assess this pollutant. Two 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 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. Two of 6 samples exceeded the water quality objective and this exceeds the allowable frequency listed in Table 3.1 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 be placed on the section 303(d) list because applicable water quality standards are exceeded.

Lines of Evidence:

Numeric Line of Evidence	Toxicity
Beneficial Use:	CO - Cold Freshwater Habitat, MI - Fish Migration, WA - Warm Freshwater Habitat
Matrix:	Water
Water Quality Objective/ Water Quality Criterion:	Basin Plan: All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species. There shall be no acute toxicity in ambient waters. Acute toxicity is defined as a median of less than 90 percent survival, or less than 70 percent survival, 10 percent of the time, of test organisms in a 96-hour static or continuous flow test.
Data Used to Assess Water Quality:	Two out of six samples displayed significant toxicity in the survival endpoint when compared to the negative control based on a statistical

	test with alpha of less than 5%, and less than the evaluation threshold (both criteria were met). The toxic Belleville/Barranca samples of April 2002 and January 2003 were 7 day tests for % survival of Pimephales promelas and Ceriodaphnia dubia, respectively. Please see also the QA qualifier below for the January 2003 toxic Belleville/Barranca sample (TSMP, 2002).
Spatial Representation:	The samples were collected from two stations along Stevens Creek: Belleville/Barranca and La Avenida. Toxicity was detected in samples collected from the Belleville/Barranca site.
Temporal Representation:	Samples were collected at the two different stations on three dates, June 17, 2002, April 11, 2002, and January 23, 2003, for a total of six samples. Toxicity in the survival endpoint was detected in samples collected in April 2002 and January 2003.
Environmental Conditions:	Sub-Basin: Stevens Creek is in the Santa Clara Basin.
Data Quality Assessment:	SWAMP QAPP. QA qualifier of Minor deviations in water quality parameters for the toxic January 2003 Barranca sample.

San Francisco Bay Region (2)



Recommendations to remove waters and pollutants from the section 303(d) List

Region 2

Water Segment: Carquinez Strait

Pollutant: Diazinon

Decision: Delist

Weight of Evidence: This pollutant is being considered for removal from the 303(d) list under section 4.6 of the Listing Policy. Under section 4.6 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. The basis for listing in 1998 was ambient water toxicity and detections of diazinon in Bay waters. In the current assessment, the evaluation guideline available may not satisfy the requirements of the Listing Policy but even if the guideline were used all measurements are much lower than the recommended concentration. Recent measures of toxicity show that ambient water toxicity no longer exists in Bay waters. The RWQCB is also developing a Water Quality Attainment Strategy that calls for preventive actions to keep diazinon from entering the Bay.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification available 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. An evaluation guideline may not 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. None of samples exceeded the draft guideline and ambient water toxicity in the Bay appears to have disappeared. These frequencies do not 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 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	Pollutant-Water
Beneficial Use:	ES - Estuarine Habitat
Matrix:	Water
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. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species. There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters (SFBRWQCB, 1995).
Evaluation Guideline:	For salt water, USEPA has developed a draft water quality criteria of 400 ng/L (chronic) (USEPA, 2000). The use of these values may not comply with all the requirements of section 6.1.3 of the Listing Policy.
Data Used to Assess Water Quality:	The maximum concentration observed in Regional Monitoring Program samples was 44 ng/L (mean 6.6 ng/L) (Ogle, 2004).
Spatial Representation:	One station.
Temporal Representation:	Samples were collected between 1993 and 2001.
Data Quality Assessment:	SFEI Regional Monitoring Program QAPP (Lowe, S.R., et al., 1998) (Ogle, 2004).

Line of Evidence	Narrative Description Data
Beneficial Use	ES - Estuarine Habitat
Information Used to Assess Water Quality:	In response to the RMP observations of ambient water toxicity, and given the linkage established between similar toxicity and pesticides in upstream ambient water, the SFBRWQCB identified all San Francisco Bay segments as being impaired due to Pesticides in 1998: Pesticides have been added as a cause of impairment to all Bay segments. The pesticide diazinon has been measured at levels that cause water column toxicity. The pesticide chlorpyrifos may also be a problem. This listing is consistent with listing of the Delta for these pesticides by the Central Valley Regional Water Quality Control Board. This listing was subsequently made specific for the OP pesticide diazinon by the USEPA.

Line of Evidence	Toxicity
Beneficial Use	ES - Estuarine Habitat
Information Used to Assess Water Quality:	Ambient water toxicity in San Francisco Bay appears to have disappeared. The results of ambient water toxicity monitoring at Mallard Island indicate a significant reduction in the frequency, duration, and magnitude of toxicity: 4-5% of the ambient water samples were toxic in 1998-99 (34 total samples) and 1999-2000 (23 samples), relative to 14% toxicity frequency observed in 1997-98 (27 samples); none of the 28 samples collected during the 2000-2001 season were significantly toxic.

	In addition, the 1998-2000 and 2000-2001 monitoring at Mallard Island did not document any sets of consecutively toxic samples indicative of an extended period of ambient water toxicity, such as were observed in February and May of 1998. Moreover, the magnitude of toxicity (as reflected by the degree [or percentage] of test organism mortality) is also markedly reduced in the later years, again suggesting a reduction in the degree of ambient water toxicity. Subsequent RMP monitoring of ambient water toxicity in water samples collected from October 2001 through April 2003, also indicated an absence of toxicity to the test organisms.
Non-Numeric Objective:	Basin Plan: There shall be no acute toxicity in ambient waters 'There shall be no chronic toxicity in ambient waters'.

Region 2

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

Pollutant: Diazinon

Decision: Delist

Weight of Evidence: This pollutant is being considered for listing under sections 2.1 and 3.1 of the Listing Policy. Under section 3.1 a single line of evidence is necessary to assess listing status.

Four lines of evidence are available in the administrative record to assess this pollutant. The basis for listing in 1998 was ambient water toxicity and detections of diazinon in Bay waters. In the current assessment, the evaluation guideline available may not satisfy the requirements of the Listing Policy but even if the guideline were used all measurements are much lower than the recommended concentration. Recent measures of toxicity show that ambient water toxicity no longer exists in Bay waters. The RWQCB is also developing a Water Quality Attainment Strategy that calls for preventive actions to keep diazinon from entering the Bay.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification available 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 evaluation guideline may not 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. None of samples exceeded the draft guideline and ambient water toxicity in the Bay appears to have disappeared. These frequencies do not 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 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	Pollutant-Water
Beneficial Use:	ES - Estuarine Habitat
Matrix:	Water
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. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species. There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.
Evaluation Guideline:	For salt water, USEPA has developed draft water quality criteria of 820 ng/L (acute) and 400 ng/L (chronic). The use of these values may not comply with all the requirements of section 6.1.3 of the Listing Policy.
Data Used to Assess Water Quality:	1st sample site: None of the 17 samples exceeded, pollutant range: 240-32,000 pg/L, average: 3,555.0. 2nd sample site: None of the 16 samples exceeded, pollutant range: 370-13,000 pg/L, average: 2,898.0 (SFEI, 2001).
Spatial Representation:	Two sample sites.
Temporal Representation:	1st sample site: Date Range: 02/07/94-08/02/01. 2nd sample site: Date Range: 03/03/93-08/03/01
Data Quality Assessment:	SFEI RMP QA/QC program.

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	ES - Estuarine Habitat
Matrix:	Water
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. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species. There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.
Evaluation Guideline:	For salt water, USEPA has developed draft water quality criteria of 820 ng/L (acute) and 400 ng/L (chronic). The use of these values may not comply with all the requirements of section 6.1.3 of the Listing Policy.
Data Used to Assess Water Quality:	1st sample site: None of the 18 samples exceeded, pollutant range: 240-32,000 pg/L, average: 3,492.8. 2nd sample site: None of the 16 viable samples exceeded, pollutant range: 370-13,000 pg/L, average: 2,907.5 (SFEI, 2001).
Spatial Representation:	Two sample sites.
Temporal Representation:	1st sample site: Date Range: 02/07/94-08/02/01. 2nd sample site: Date Range: 03/03/93-08/03/01.
Data Quality Assessment:	SFEI RMP QA/QC program.

Line of Evidence	Narrative Description Data
Beneficial Use	ES - Estuarine Habitat
Information Used to Assess Water Quality:	Diazinon is one of the pollutants listed for this segment on the 2002 section 303(d) list. The data and information used to assess this pollutant-water segment is subsumed in diazinon listing for San Francisco Bay, Central. The conclusions drawn for San Francisco Bay, Central should be applied to this segment.

Line of Evidence	Toxicity
Beneficial Use	ES - Estuarine Habitat
Non-Numeric Objective:	Basin Plan: There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.
Data Used to Assess Water Quality:	Ambient water toxicity in San Francisco Bay appears to have disappeared. The results of ambient water toxicity monitoring at Mallard Island indicate a significant reduction in the frequency, duration, and magnitude of toxicity: 4-5% of the ambient water samples were toxic in 1998-99 (34 total samples) and 1999-2000 (23 samples), relative to 14% toxicity frequency observed in 1997-98 (27 samples); none of the 28 samples collected during the 2000-2001 season were significantly toxic. In addition, the 1998-2000 and 2000-2001 monitoring at Mallard Island did not document any sets of consecutively toxic samples indicative of an extended period of ambient water toxicity, such as were observed in February and May of 1998. The magnitude of toxicity (as reflected by the degree [or percentage] of test organism mortality) is also markedly reduced in the later years, indicating a reduction in the degree of ambient water toxicity. Subsequent RMP monitoring of ambient water toxicity in water samples collected from 10/2001 through 4/2003 also indicated an absence of toxicity to the test organisms (Ogle, 2004).

Line of Evidence	Narrative Description Data
Beneficial Use	ES - Estuarine Habitat
Information Used to Assess Water Quality:	In response to the RMP observations of ambient water toxicity, and given the linkage established between similar toxicity and pesticides in upstream ambient water, the SFBRWQCB identified all San Francisco Bay segments as being impaired due to Pesticides in 1998: Pesticides have been added as a cause of impairment to all Bay segments. The pesticide diazinon has been measured at levels that cause water column toxicity. The pesticide chlorpyrifos may also be a problem. This listing is consistent with listing of the Delta for these pesticides by the Central Valley Regional Water Quality Control Board. This listing was subsequently made specific for the organophosphate pesticide diazinon by the USEPA.

Non-Numeric Objective:	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species. There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.

Region 2

Water Segment:	Islais Creek
Pollutant:	Endosulfan sulfate
Decision:	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 4.6 two lines of evidence are necessary to assess listing status. Five lines of evidence are available in the administrative record to assess this pollutant. A sediment guideline is not available and it cannot be determined if the pollutant is likely to cause or contribute to the toxic effect or tot he benthic effects. Based on the readily available data and information, the weight of evidence indicates that there is sufficient 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. A sediment quality guideline that complies with the requirements of section 6.1.3 of the Policy is not available. 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. 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 it cannot be determined if applicable water quality standards are not 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:	No applicable sediment guideline is available.
Data Used to Assess Water Quality:	Three measurements. Concentration ranges from 3.96 ng/g to 21 ng/g (Hunt et al., 1998b).
Spatial Representation:	Data was collected over the length of the Creek concurrently with benthic community and toxicity samples.
Temporal Representation:	Data was collected in 1997.
Data Quality Assessment:	BPTCP Quality Assurance Project Plan.

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

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). 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 7 of 18 samples (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.

Environmental Conditions:	Samples were collected in both wet and dry seasons.
Data Quality Assessment:	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
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. 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.
Data Used to Assess Water Quality:	Relative benthic index = 0.22, 0.25, 0.43 (3 benthic gradient samples) (Hunt et al., 1998b).
Spatial Representation:	Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.
Temporal Representation:	Data was collected from 9/94 - 9/97.
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:	Islais Creek
Pollutant:	Polychlorinated biphenyls
Decision:	Delist
Weight of Evidence:	This pollutant is being considered for removal from the 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 delisting 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 but there is insufficient information to determine whether the pollutant contributes to the toxic effects. The benthic community may be impacted by this pollutant. A remedial program has scheduled actions to address this pollutant water body combination. Based on the readily available data and information for sediments, the weight of evidence indicates that there is sufficient justification in favor of removing this water segment-pollutant combination from the section 303(d) list in the Water Quality Limited Segments category. This pollutant should not be removed from this segment because PCBs have been found to bioaccumulate in fish tissue. 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 49 samples exceeded the sediment guideline and this does not exceed the allowable frequency listed in Table 4.1 of the Listing Policy. Ten of 22 samples exhibited significant amphipod toxicity, 4 of five samples exhibited significant sea urchin toxicity and the benthic community is considered to be degraded. 5. Pursuant to section 3.11 of the Listing Policy, PCBs have been listed throughout the Bay because of concerns with bioaccumulation in fish tissue.
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 the PCB sediment quality is not exceeded and although there is significant sediment toxicity it cannot be determined if the pollutant contributes to or causes the documented toxicity effects.

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 (SFBRWQCB, 1995).
Evaluation Guideline:	Sediment guideline of 400 ng/g used (MacDonald et al., 2000).
Data Used to Assess Water Quality:	One of 3 samples exceeded sediment guideline (Hunt et al., 1998b).
Spatial Representation:	Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.
Temporal Representation:	Data was collected from 9/94 - 9/97.
Data Quality Assessment:	BPTCP Quality Assurance Project Plan (Stephenson et al., 1994).

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 (SRBRWQCB, 1995).
Evaluation Guideline:	Sediment guideline of 400 ng/g used (MacDonald et al., 2000).
Data Used to Assess Water Quality:	One of 46 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 (Stephenson et al., 1994). All reported data met QA requirements.

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).

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

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). 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 7 of 18 samples (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.
Environmental Conditions:	Samples were collected in both wet and dry seasons.
Data Quality Assessment:	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
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. 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.
Data Used to Assess Water Quality:	Relative benthic index = 0.22, 0.25, 0.43 (3 benthic gradient samples) (Hunt et al., 1998b).
Spatial Representation:	Data was synoptically collected with benthic community and toxicity measurements over the length of the creek.
Temporal Representation:	Data was collected from 9/94 - 9/97.
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:	Chlorpyrifos
Decision:	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 4.6 two lines of evidence are necessary to assess listing status. Four lines of evidence are available in the administrative record to assess this pollutant. A sediment guideline is not available and it cannot be determined if the pollutant is likely to cause or contribute to the toxic effect. Based on the readily available data and information, the weight of evidence indicates that there is sufficient 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. A sediment quality guideline that complies with the requirements of section 6.1.3 of the Policy is not available. 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. 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 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:	No applicable sediment guideline is available.
Data Used to Assess Water Quality:	Three measurements (Hunt et al., 1998b).
Spatial Representation:	Data were collected concurrently with benthic community and toxicity measurements.
Temporal Representation:	Data was collected, from 5/95-4/97.
Data Quality Assessment:	BPTCP Quality Assurance Project Plan.

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.

Region 2

Water Segment: Mission Creek

Pollutant: Chromium (total)

Decision: 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.

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 but the pollutant is not likely to cause or contribute to any toxic effect. The benthic community is impacted but is not associated with this pollutant.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient 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. One of 47 samples exceeded the 370 µg/g ERM sediment quality guideline and this does not 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 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 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 370 µg/g was used (Long et al., 1995).
Data Used to Assess Water Quality:	One of 3 samples exceeded the sediment guideline (Hunt et al., 1998b).
Spatial Representation:	Data were collected concurrently with benthic community and toxicity measurements.
Temporal Representation:	Data was collected in 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:	ERM of 370 µg/g was used (Long et al., 1995).
Data Used to Assess Water Quality:	None of 44 samples exceeded the ERM (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).
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: Copper

Decision: 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.

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 but the pollutant is not likely to cause or contribute to any toxic effect. The benthic community is impacted but is not associated with this pollutant.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient 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. One of 47 samples exceeded the 270 µg/g ERM sediment quality guideline and this does not 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 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 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:	One of 3 samples exceeded the sediment guideline (Hunt et al., 1998b).
Spatial Representation:	Data were collected concurrently with benthic community and toxicity measurements.
Temporal Representation:	Data was collected in 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:	ERM of 270 µg/g was used (Long et al., 1995).
Data Used to Assess Water Quality:	None of 44 samples exceeded the ERM (Hunt et al., 1998b).
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).
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: Mirex

Decision: 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 4.6 two lines of evidence are necessary to assess listing status.

Four lines of evidence are available in the administrative record to assess this pollutant. A sediment guideline is not available and it cannot be determined if the pollutant is likely to cause or contribute to the toxic effect.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient 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. A sediment quality guideline that complies with the requirements of section 6.1.3 of the Policy is not available.
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 sediments are toxic and benthos is impacted, this pollutant cannot be associated with the effects.
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 be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are not 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 (BPTCP, 1998).
Evaluation Guideline:	No applicable guideline is available.
Data Used to Assess Water Quality:	Three measurements (Hunt et al., 1998b).
Spatial Representation:	Data were collected concurrently with benthic and toxicity measurements.
Temporal Representation:	Data was collected, from 5/95-4/97.
Data Quality Assessment:	BPTCP Quality Assurance Project Plan.

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.

Region 2

Water Segment:	Oakland Inner Harbor (Fruitvale Site, part of SF Bay, Central)
Pollutant:	Diazinon
Decision:	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. Five lines of evidence are available in the administrative record to assess this pollutant. The basis for listing in 1998 was ambient water toxicity and detections of diazinon in Bay waters. In the current assessment, the evaluation guideline available may not satisfy the requirements of the Listing Policy but even if the guideline were used all measurements are much lower than the recommended concentration. Recent measures of toxicity show that ambient water toxicity no longer exists in Bay waters. The RWQCB is also developing a Water Quality Attainment Strategy that calls for preventive actions to keep diazinon from entering the Bay. Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification available 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 evaluation guideline may not 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. None of samples exceeded the draft guideline and ambient water toxicity in the Bay appears to have disappeared. These frequencies do not 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 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	Pollutant-Water
Beneficial Use:	ES - Estuarine Habitat
Matrix:	Water
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. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species. There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.
Evaluation Guideline:	For salt water, USEPA has developed draft water quality criteria of 820 ng/L (acute) and 400 ng/L (chronic). The use of these values may not comply with all the requirements of section 6.1.3 of the Listing Policy.
Data Used to Assess Water Quality:	1st sample site: None of the 17 samples exceeded, pollutant range: 240-32,000 pg/L, average: 3,555.0. 2nd sample site: None of the 16 samples exceeded, pollutant range: 370-13,000 pg/L, average: 2,898.0 (SFEI, 2001).
Spatial Representation:	Two sample sites.
Temporal Representation:	1st sample site: Date Range: 02/07/94-08/02/01. 2nd sample site: Date Range: 03/03/93-08/03/01
Data Quality Assessment:	SFEI RMP QA/QC program.

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	ES - Estuarine Habitat
Matrix:	Water
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. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species. There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.
Evaluation Guideline:	For salt water, USEPA has developed draft water quality criteria of 820 ng/L (acute) and 400 ng/L (chronic). The use of these values may not comply with all the requirements of section 6.1.3 of the Listing Policy.
Data Used to Assess Water Quality:	1st sample site: None of the 18 samples exceeded, pollutant range: 240-32,000 pg/L, average: 3,492.8. 2nd sample site: None of the 16 viable samples exceeded, pollutant range: 370-13,000 pg/L, average: 2,907.5 (SFEI, 2001).
Spatial Representation:	Two sample sites.
Temporal Representation:	1st sample site: Date Range: 02/07/94-08/02/01. 2nd sample site: Date Range: 03/03/93-08/03/01.
Data Quality Assessment:	SFEI RMP QA/QC program.

Line of Evidence	Narrative Description Data
Beneficial Use	ES - Estuarine Habitat
Information Used to Assess Water Quality:	Diazinon is one of the pollutants listed for this segment on the 2002 section 303(d) list. The data and information used to assess this pollutant-water segment is subsumed in diazinon listing for San Francisco Bay, Central. The conclusions drawn for San Francisco Bay, Central should be applied to this segment.

Line of Evidence	Toxicity
Beneficial Use	ES - Estuarine Habitat
Non-Numeric Objective:	Basin Plan: There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.
Data Used to Assess Water Quality:	Ambient water toxicity in San Francisco Bay appears to have disappeared. The results of ambient water toxicity monitoring at Mallard Island indicate a significant reduction in the frequency, duration, and magnitude of toxicity: 4-5% of the ambient water samples were toxic in 1998-99 (34 total samples) and 1999-2000 (23 samples), relative to 14% toxicity frequency observed in 1997-98 (27 samples); none of the 28 samples collected during the 2000-2001 season were significantly toxic. In addition, the 1998-2000 and 2000-2001 monitoring at Mallard Island did not document any sets of consecutively toxic samples indicative of an extended period of ambient water toxicity, such as were observed in February and May of 1998. The magnitude of toxicity (as reflected by the degree [or percentage] of test organism mortality) is also markedly reduced in the later years, indicating a reduction in the degree of ambient water toxicity. Subsequent RMP monitoring of ambient water toxicity in water samples collected from 10/2001 through 4/2003 also indicated an absence of toxicity to the test organisms (Ogle, 2004).

Line of Evidence	Narrative Description Data
Beneficial Use	ES - Estuarine Habitat
Information Used to Assess Water Quality:	In response to the RMP observations of ambient water toxicity, and given the linkage established between similar toxicity and pesticides in upstream ambient water, the SFBRWQCB identified all San Francisco Bay segments as being impaired due to Pesticides in 1998: Pesticides have been added as a cause of impairment to all Bay segments. The pesticide diazinon has been measured at levels that cause water column toxicity. The pesticide chlorpyrifos may also be a problem. This listing is consistent with listing of the Delta for these pesticides by the Central Valley Regional Water Quality Control Board. This listing was subsequently made specific for the organophosphate pesticide diazinon by the USEPA.

Non-Numeric Objective:	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species. There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.

Region 2

Water Segment:	Oakland Inner Harbor (Pacific Dry-dock Yard 1 Site, part of SF Bay, Central)
Pollutant:	Chlorpyrifos
Decision:	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 4.6 two lines of evidence are necessary to assess listing status. Two lines of evidence are available in the administrative record to assess this pollutant. A sediment guideline is not available and it cannot be determined if the pollutant is likely to cause or contribute to the toxic effect. Based on the readily available data and information, the weight of evidence indicates that there is sufficient 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. A sediment quality guideline that complies with the requirements of section 6.1.3 of the Policy is not available. 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. 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 it cannot be determined if applicable water quality standards are not 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:	No applicable sediment quality guideline is available.
Data Used to Assess Water Quality:	Two measurements (Hunt et al., 1998b).
Spatial Representation:	Spatial distribution of samples is described in the report
Temporal Representation:	Data collected during 1995.
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:	Diazinon
Decision:	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. Five lines of evidence are available in the administrative record to assess this pollutant. The basis for listing in 1998 was ambient water toxicity and detections of diazinon in Bay waters. In the current assessment, the evaluation guideline available may not satisfy the requirements of the Listing Policy. Even if the guideline were used, all measurements are much lower than the recommended concentration. Recent measures of toxicity show that ambient water toxicity no longer exists in Bay waters. The RWQCB is also developing a Water Quality Attainment Strategy that calls for preventive actions to keep diazinon from entering the Bay. Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification available 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. An evaluation guideline may not 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. None of samples exceeded the draft guideline and ambient water toxicity in the Bay appears to have disappeared. These frequencies do not 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 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	Pollutant-Water
Beneficial Use:	ES - Estuarine Habitat
Matrix:	Water
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. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species. There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.
Evaluation Guideline:	For salt water, USEPA has developed draft water quality criteria of 820 ng/L (acute) and 400 ng/L (chronic). The use of these values may not comply with all the requirements of section 6.1.3 of the Listing Policy.
Data Used to Assess Water Quality:	1st sample site: None of the 17 samples exceeded, pollutant range: 240-32,000 pg/L, average: 3,555.0. 2nd sample site: None of the 16 samples exceeded, pollutant range: 370-13,000 pg/L, average: 2,898.0 (SFEI, 2001).
Spatial Representation:	Two sample sites.
Temporal Representation:	1st sample site: Date Range: 02/07/94-08/02/01. 2nd sample site: Date Range: 03/03/93-08/03/01
Data Quality Assessment:	SFEI RMP QA/QC program.

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	ES - Estuarine Habitat
Matrix:	Water
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. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species. There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.
Evaluation Guideline:	For salt water, USEPA has developed draft water quality criteria of 820 ng/L (acute) and 400 ng/L (chronic). The use of these values may not comply with all the requirements of section 6.1.3 of the Listing Policy.
Data Used to Assess Water Quality:	1st sample site: None of the 18 samples exceeded, pollutant range: 240-32,000 pg/L, average: 3,492.8. 2nd sample site: None of the 16 viable samples exceeded, pollutant range: 370-13,000 pg/L, average: 2,907.5 (SFEI, 2001).
Spatial Representation:	Two sample sites.
Temporal Representation:	1st sample site: Date Range: 02/07/94-08/02/01. 2nd sample site: Date Range: 03/03/93-08/03/01.
Data Quality Assessment:	SFEI RMP QA/QC program.

Line of Evidence	Narrative Description Data
Beneficial Use	ES - Estuarine Habitat
Information Used to Assess Water Quality:	Diazinon is one of the pollutants listed for this segment on the 2002 section 303(d) list. The data and information used to assess this pollutant-water segment is subsumed in diazinon listing for San Francisco Bay, Central. The conclusions drawn for San Francisco Bay, Central should be applied to this segment (SFEI, 2001).

Line of Evidence	Toxicity
Beneficial Use	ES - Estuarine Habitat
Non-Numeric Objective:	Basin Plan: There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.
Data Used to Assess Water Quality:	Ambient water toxicity in San Francisco Bay appears to have disappeared. The results of ambient water toxicity monitoring at Mallard Island indicate a significant reduction in the frequency, duration, and magnitude of toxicity: 4-5% of the ambient water samples were toxic in 1998-99 (34 total samples) and 1999-2000 (23 samples), relative to 14% toxicity frequency observed in 1997-98 (27 samples); none of the 28 samples collected during the 2000-2001 season were significantly toxic. In addition, the 1998-2000 and 2000-2001 monitoring at Mallard Island did not document any sets of consecutively toxic samples indicative of an extended period of ambient water toxicity, such as were observed in February and May of 1998. The magnitude of toxicity (as reflected by the degree [or percentage] of test organism mortality) is also markedly reduced in the later years, indicating a reduction in the degree of ambient water toxicity. Subsequent RMP monitoring of ambient water toxicity in water samples collected from 10/2001 through 4/2003 also indicated an absence of toxicity to the test organisms (Ogle, 2004).

Line of Evidence	Narrative Description Data
Beneficial Use	ES - Estuarine Habitat
Information Used to Assess Water Quality:	In response to the RMP observations of ambient water toxicity, and given the linkage established between similar toxicity and pesticides in upstream ambient water, the SFBRWQCB identified all San Francisco Bay segments as being impaired due to Pesticides in 1998: Pesticides have been added as a cause of impairment to all Bay segments. The pesticide diazinon has been measured at levels that cause water column toxicity. The pesticide chlorpyrifos may also be a problem. This listing is consistent with listing of the Delta for these pesticides by the Central Valley Regional Water Quality Control Board. This listing was subsequently made specific for the organophosphate pesticide diazinon by the USEPA.

Non-Numeric Objective:	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species. There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.

Region 2

Water Segment:	Oakland Inner Harbor (Pacific Dry-dock Yard 1 Site, part of SF Bay, Central)
Pollutant:	Mirex
Decision:	Delist
Weight of Evidence:	This pollutant is being considered for delisting under sections 4.6 and 4.10 of the Listing Policy. Two lines of evidence are available in the administrative record to assess this pollutant. The site has significant sediment toxicity but it cannot be determined if the pollutant is likely to cause or contribute to the toxic effect. Based on the readily available data and information, the weight of evidence indicates that there is not sufficient 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. A sediment quality 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 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-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:	There is no applicable sediment quality guideline available.
Data Used to Assess Water Quality:	Three measurements (Hunt et al., 1998b).
Spatial Representation:	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.
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: Tributylin TBT (Tributylstanne)

Decision: 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 4.6 two lines of evidence are necessary to assess listing status.

Two lines of evidence are available in the administrative record to assess this pollutant. A sediment guideline is not available and it cannot be determined if the pollutant is likely to cause or contribute to the toxic effect.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient 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. A sediment quality guideline that complies with the requirements of section 6.1.3 of the Policy is not available.
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 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 be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are not 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:	No applicable sediment guideline available.
Data Used to Assess Water Quality:	Two measurements (Hunt et al., 1998b).
Spatial Representation:	Spatial distribution of samples is described in the report
Temporal Representation:	Data collected in 1995.
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: ppDDE

Decision: 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 4.6 two lines of evidence are necessary to assess listing status.

Two lines of evidence are available in the administrative record to assess this pollutant. A sediment guideline is not available and it cannot be determined if the pollutant is likely to cause or contribute to the toxic effect.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient 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. A sediment quality guideline that complies with the requirements of section 6.1.3 of the Policy is not available.
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 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 be removed from the section 303(d) list because it cannot be determined if applicable water quality standards are not 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:	No applicable sediment guideline available.
Data Used to Assess Water Quality:	Two measurements ranging in concentration from ND to 51.2 ng/g (Hunt et al., 1998b).
Spatial Representation:	Spatial distribution of samples is described in the report
Temporal Representation:	Data collected in 1995.
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: Sacramento San Joaquin Delta

Pollutant: Diazinon

Decision: Delist

Weight of Evidence: This pollutant is being considered for removal from the 303(d) list under section 4.6 of the Listing Policy. Under section 4.6 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. The basis for listing in 1998 was ambient water toxicity and detections of diazinon in Bay waters. In the current assessment, the evaluation guideline available may not satisfy the requirements of the Listing Policy but even if the guideline were used all measurements are much lower than the recommended concentration. Recent measures of toxicity show that ambient water toxicity no longer exists in Bay waters. The RWQCB is also developing a Water Quality Attainment Strategy that calls for preventive actions to keep diazinon from entering the Bay.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification available 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 evaluation guideline may not 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. None of 83 samples exceeded the criteria and ambient water toxicity in the Bay appears to have disappeared. These frequencies do not 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 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	Pollutant-Water
Beneficial Use:	ES - Estuarine Habitat
Matrix:	Water
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. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species. There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters (SFBRWQCB, 1995). For salt water, USEPA has developed a draft water quality criteria of 400 ng/L (chronic) (USEPA, 2000). The use of these values may not comply with all the requirements of section 6.1.3 of the Listing Policy.
Evaluation Guideline:	CDFG Hazard Assessment Criteria 0.16 µg/L 1-hour average (acute), 0.10 µg/L 4-day (chronic) average (Siepman & Finlayson, 2000; Finlayson, 2004).
Data Used to Assess Water Quality:	The maximum concentration observed in Regional Monitoring Program samples at the Sacramento River station was 46.6 ng/L (mean 8.5 ng/L). The maximum concentration observed in Regional Monitoring Program samples at the San Joaquin River station was 35.2 ng/L (mean 8.4 ng/L) (SFEI, 2001).
Spatial Representation:	Two stations.
Temporal Representation:	Samples were collected between 1993 and 2001.
Data Quality Assessment:	SFEI Regional Monitoring Program QAPP (Lowe et al., 1998).

Line of Evidence	Narrative Description Data
Beneficial Use	ES - Estuarine Habitat
Information Used to Assess Water Quality:	In response to the RMP observations of ambient water toxicity, and given the linkage established between similar toxicity and pesticides in upstream ambient water, the SFBRWQCB identified all San Francisco Bay segments as being impaired due to Pesticides in 1998: Pesticides have been added as a cause of impairment to all Bay segments. The pesticide diazinon has been measured at levels that cause water column toxicity. The pesticide chlorpyrifos may also be a problem. This listing is consistent with listing of the Delta for these pesticides by the Central Valley Regional Water Quality Control Board. This listing was subsequently made specific for the OP pesticide diazinon by the USEPA.

Line of Evidence	Toxicity
Beneficial Use	ES - Estuarine Habitat
Non-Numeric Objective:	Basin Plan: There shall be no acute toxicity in ambient waters. There

shall be no chronic toxicity in ambient waters (SFBRWQCB, 1995).

Data Used to Assess Water Quality:

Ambient water toxicity in San Francisco Bay appears to have disappeared. The results of ambient water toxicity monitoring at Mallard Island indicate a significant reduction in the frequency, duration, and magnitude of toxicity: 4-5% of the ambient water samples were toxic in 1998-99 (34 total samples) and 1999-2000 (23 samples), relative to 14% toxicity frequency observed in 1997-98 (27 samples); none of the 28 samples collected during the 2000-2001 season were significantly toxic.

In addition, the 1998-2000 and 2000-2001 monitoring at Mallard Island did not document any sets of consecutively toxic samples indicative of an extended period of ambient water toxicity, such as were observed in February and May of 1998. Moreover, the magnitude of toxicity (as reflected by the degree [or percentage] of test organism mortality) is also markedly reduced in the later years, again suggesting a reduction in the degree of ambient water toxicity. Subsequent RMP monitoring of ambient water toxicity in water samples collected from October, 2001 through April 2003, also indicated an absence of toxicity to the test organisms (Ogle, 2004).

Region 2

Water Segment: San Francisco Bay, Central

Pollutant: Diazinon

Decision: 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.

Four lines of evidence are available in the administrative record to assess this pollutant. The basis for listing in 1998 was ambient water toxicity and detections of diazinon in Bay waters. In the current assessment, the evaluation guideline available may not satisfy the requirements of the Listing Policy but even if the guideline were used all measurements are much lower than the recommended concentration. Recent measures of toxicity show that ambient water toxicity no longer exists in Bay waters. The RWQCB is also developing a Water Quality Attainment Strategy that calls for preventive actions to keep diazinon from entering the Bay.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification available 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 evaluation guideline may not 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. None of the samples exceeded the draft guideline and ambient water toxicity in the Bay appears to have disappeared. These frequencies do not 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 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	Pollutant-Water
Beneficial Use:	ES - Estuarine Habitat
Matrix:	Water
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. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species. There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.
Evaluation Guideline:	For salt water, USEPA has developed draft water quality criteria of 820 ng/L (acute) and 400 ng/L (chronic). The use of these values may not comply with all the requirements of section 6.1.3 of the Listing Policy.
Data Used to Assess Water Quality:	1st sample site: None of the 17 samples exceeded, pollutant range: 240-32,000 pg/L, average: 3,555.0. 2nd sample site: None of the 16 samples exceeded, pollutant range: 370-13,000 pg/L, average: 2,898.0 (SFEI, 2001).
Spatial Representation:	Two sample sites.
Temporal Representation:	1st sample site: Date Range: 02/07/94-08/02/01. 2nd sample site: Date Range: 03/03/93-08/03/01
Data Quality Assessment:	SFEI RMP QA/QC program.

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	ES - Estuarine Habitat
Matrix:	Water
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. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species. There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.
Evaluation Guideline:	For salt water, USEPA has developed draft water quality criteria of 820 ng/L (acute) and 400 ng/L (chronic). The use of these values may not comply with all the requirements of section 6.1.3 of the Listing Policy.
Data Used to Assess Water Quality:	1st sample site: None of the 18 samples exceeded, pollutant range: 240-32,000 pg/L, average: 3,492.8. 2nd sample site: None of the 16 viable samples exceeded, pollutant range: 370-13,000 pg/L, average: 2,907.5 (SFEI, 2001).
Spatial Representation:	Two sample sites.
Temporal Representation:	1st sample site: Date Range: 02/07/94-08/02/01. 2nd sample site: Date Range: 03/03/93-08/03/01.
Data Quality Assessment:	SFEI RMP QA/QC program.

Line of Evidence	Toxicity
Beneficial Use	ES - Estuarine Habitat
Non-Numeric Objective:	Basin Plan: There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.
Data Used to Assess Water Quality:	Ambient water toxicity in San Francisco Bay appears to have disappeared. The results of ambient water toxicity monitoring at Mallard Island indicate a significant reduction in the frequency, duration, and magnitude of toxicity: 4-5% of the ambient water samples were toxic in 1998-99 (34 total samples) and 1999-2000 (23 samples), relative to 14% toxicity frequency observed in 1997-98 (27 samples); none of the 28 samples collected during the 2000-2001 season were significantly toxic. In addition, the 1998-2000 and 2000-2001 monitoring at Mallard Island did not document any sets of consecutively toxic samples indicative of an extended period of ambient water toxicity, such as were observed in February and May of 1998. The magnitude of toxicity (as reflected by the degree [or percentage] of test organism mortality) is also markedly reduced in the later years, indicating a reduction in the degree of ambient water toxicity. Subsequent RMP monitoring of ambient water toxicity in water samples collected from 10/2001 through 4/2003 also indicated an absence of toxicity to the test organisms (Ogle, 2004).

Line of Evidence	Narrative Description Data
Beneficial Use	ES - Estuarine Habitat
Information Used to Assess Water Quality:	In response to the RMP observations of ambient water toxicity, and given the linkage established between similar toxicity and pesticides in upstream ambient water, the SFBRWQCB identified all San Francisco Bay segments as being impaired due to Pesticides in 1998: Pesticides have been added as a cause of impairment to all Bay segments. The pesticide diazinon has been measured at levels that cause water column toxicity. The pesticide chlorpyrifos may also be a problem. This listing is consistent with listing of the Delta for these pesticides by the Central Valley Regional Water Quality Control Board. This listing was subsequently made specific for the organophosphate pesticide diazinon by the USEPA.
Non-Numeric Objective:	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species. There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.

Region 2

Water Segment: San Francisco Bay, Lower

Pollutant: Diazinon

Decision: 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.

Four lines of evidence are available in the administrative record to assess this pollutant. The basis for listing in 1998 was ambient water toxicity and detections of diazinon in Bay waters. In the current assessment, the evaluation guideline available may not satisfy the requirements of the Listing Policy but even if the guideline were used all measurements are much lower than the recommended concentration. Recent measures of toxicity show that ambient water toxicity no longer exists in Bay waters. The RWQCB is also developing a Water Quality Attainment Strategy that calls for preventive actions to keep diazinon from entering the Bay.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification available 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 evaluation guideline may not 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. None of the samples exceeded the draft guideline and ambient water toxicity in the Bay appears to have disappeared. These frequencies do not 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 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	Pollutant-Water
Beneficial Use:	ES - Estuarine Habitat
Matrix:	Water
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. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species. There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.
Evaluation Guideline:	For salt water, USEPA has developed draft water quality criteria of 820 ng/L (acute) and 400 ng/L (chronic). The use of these values may not comply with all the requirements of section 6.1.3 of the Listing Policy.
Data Used to Assess Water Quality:	None of the 15 samples exceeded, pollutant range: 620-9,500 pg/L, average: 2,801.1 (SFEI, 2001).
Spatial Representation:	One sample site.
Temporal Representation:	Date Range: 2/3/94-8/3/01.
Data Quality Assessment:	SFEI RMP QA/QC program.

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	ES - Estuarine Habitat
Matrix:	Water
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. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species. There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.
Evaluation Guideline:	For salt water, USEPA has developed draft water quality criteria of 820 ng/L (acute) and 400 ng/L (chronic). The use of these values may not comply with all the requirements of section 6.1.3 of the Listing Policy.
Data Used to Assess Water Quality:	Seventeen samples, pollutant range: 52-9,537 pg/L, average: 2,600.1 (SFEI, 2001).
Spatial Representation:	One sample site.
Temporal Representation:	Date Range: 2/3/94-8/3/01.
Data Quality Assessment:	SFEI RMP QA/QC program.

Line of Evidence	Narrative Description Data
Beneficial Use	ES - Estuarine Habitat

Information Used to Assess Water Quality:	In response to the RMP observations of ambient water toxicity, and given the linkage established between similar toxicity and pesticides in upstream ambient water, the SFBRWQCB identified all San Francisco Bay segments as being impaired due to 'Pesticides' in 1998: 'Pesticides have been added as a cause of impairment to all Bay segments. The pesticide diazinon has been measured at levels that cause water column toxicity. The pesticide chlorpyrifos may also be a problem. This listing is consistent with listing of the Delta for these pesticides by the Central Valley Regional Water Quality Control Board.' This listing was subsequently made specific for the OP pesticide diazinon by the USEPA.

Line of Evidence	Toxicity
Beneficial Use	ES - Estuarine Habitat
Non-Numeric Objective:	Basin Plan: There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.
Data Used to Assess Water Quality:	Ambient water toxicity in San Francisco Bay appears to have disappeared. The results of ambient water toxicity monitoring at Mallard Island indicate a significant reduction in the frequency, duration, and magnitude of toxicity: 4-5% of the ambient water samples were toxic in 1998-99 (34 total samples) and 1999-2000 (23 samples), relative to 14% toxicity frequency observed in 1997-98 (27 samples); none of the 28 samples collected during the 2000-2001 season were significantly toxic. In addition, the 1998-2000 and 2000-2001 monitoring at Mallard Island did not document any sets of consecutively toxic samples indicative of an extended period of ambient water toxicity, such as those which were observed in February and May of 1998. The magnitude of toxicity (as reflected by the degree [or percentage] of test organism mortality) is also markedly reduced in the later years, indicating a reduction in the degree of ambient water toxicity. Subsequent RMP monitoring of ambient water toxicity in water samples collected from 10/2001 through 4/2003 also indicated an absence of toxicity to the test organisms (Ogle, 2004).

Region 2

Water Segment: San Francisco Bay, South

Pollutant: Diazinon

Decision: Delist

Weight of Evidence: This pollutant is being considered for listing under sections 2.1 and 3.1 of the Listing Policy. Under section 3.1 a single line of evidence is necessary to assess listing status.

Four lines of evidence are available in the administrative record to assess this pollutant. The basis for listing in 1998 was ambient water toxicity and detections of diazinon in Bay waters. In the current assessment, the evaluation guideline available may not satisfy the requirements of the Listing Policy but even if the guideline were used all measurements are much lower than the recommended concentration. Recent measures of toxicity show that ambient water toxicity no longer exists in Bay waters. The RWQCB is also developing a Water Quality Attainment Strategy that calls for preventive actions to keep diazinon from entering the Bay.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification available 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 evaluation guideline may not 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. None of samples exceeded the draft guideline and ambient water toxicity in the Bay appears to have disappeared. These frequencies do not 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 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	Pollutant-Water
Beneficial Use:	ES - Estuarine Habitat
Matrix:	Water
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. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species. There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.
Evaluation Guideline:	For salt water, USEPA has developed a draft water quality criteria of 820 ng/L (acute) and 400 ng/L (chronic). The use of these values may not comply with all the requirements of section 6.1.3 of the Listing Policy.
Data Used to Assess Water Quality:	1st sample site: 16 samples, pollutant range: 2,500-97,628 pg/L, average: 10,862.3 2nd sample site: 17 samples, pollutant range: 610-18,426 pg/L, average: 5,814.1. 3rd sample site: 15 samples, pollutant range: 520-7,120 pg/L, average: 3,274.4. 4th sample site: 17 samples, pollutant range: 6,500-36,000 pg/L, average: 14,867.1 (SFEI, 2001).
Spatial Representation:	Four sample sites.
Temporal Representation:	1st sample site: Date Range: 02/01/94-07/31/01. 2nd sample site: Date Range: 03/02/93-08/01/01 3rd sample site: Date Range: 03/02/93-07/31/01 4th sample site: Date Range: 02/06/96-08/01/01
Data Quality Assessment:	SFEI RMP QA/QC program.

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	ES - Estuarine Habitat
Matrix:	Water
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. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species. There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.
Evaluation Guideline:	For salt water, USEPA has developed draft water quality criteria of 820 ng/L (acute) and 400 ng/L (chronic). The use of these values may not comply with all the requirements of section 6.1.3 of the Listing Policy.
Data Used to Assess Water Quality:	1st sample site: 16 samples, pollutant range: 2,500-98,002 pg/L, average: 11,066.5 2nd sample site: 17 samples, pollutant range: 610-18,469 pg/L, average: 5,881.1. 3rd sample site: 15 viable samples, pollutant range: 520-7,133 pg/L,

	average: 3,288.8. 4th sample site: 12 viable samples, pollutant range: 6,500-36,150 pg/L, average: 15,207.8 (SFEI, 2001).
Spatial Representation:	Four sample sites.
Temporal Representation:	1st sample site: Date Range: 02/01/94-07/31/01. 2nd sample site: Date Range: 03/02/93-08/01/01 3rd sample site: Date Range: 03/02/93-07/31/01 4th sample site: Date Range: 02/06/96-08/01/01
Data Quality Assessment:	SFEI RMP QA/QC program.

Line of Evidence	Narrative Description Data
Beneficial Use	ES - Estuarine Habitat
Information Used to Assess Water Quality:	In response to the RMP observations of ambient water toxicity, and given the linkage established between similar toxicity and pesticides in upstream ambient water, the SFBRWQCB identified all San Francisco Bay segments as being impaired due to Pesticides in 1998: Pesticides have been added as a cause of impairment to all Bay segments. The pesticide diazinon has been measured at levels that cause water column toxicity. The pesticide chlorpyrifos may also be a problem. This listing is consistent with listing of the Delta for these pesticides by the Central Valley Regional Water Quality Control Board. This listing was subsequently made specific for the OP pesticide diazinon by the USEPA.

Line of Evidence	Toxicity
Beneficial Use	ES - Estuarine Habitat
Non-Numeric Objective:	Basin Plan: There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.
Data Used to Assess Water Quality:	Ambient water toxicity in San Francisco Bay appears to have disappeared. The results of ambient water toxicity monitoring at Mallard Island indicate a significant reduction in the frequency, duration, and magnitude of toxicity: 4-5% of the ambient water samples were toxic in 1998-99 (34 total samples) and 1999-2000 (23 samples), relative to 14% toxicity frequency observed in 1997-98 (27 samples); none of the 28 samples collected during the 2000-2001 season were significantly toxic. In addition, the 1998-2000 and 2000-2001 monitoring at Mallard Island did not document any sets of consecutively toxic samples indicative of an extended period of ambient water toxicity, such as were observed in February and May of 1998. Moreover, the magnitude of toxicity (as reflected by the degree [or percentage] of test organism mortality) is also markedly reduced in the later years, again suggesting a reduction in the degree of ambient water toxicity. Subsequent RMP monitoring of ambient water toxicity in water samples collected from October, 2001 through April 2003, also indicated an absence of toxicity to the test organisms (Ogle, 2004).

Region 2

Water Segment:	San Leandro Bay (part of SF Bay, Central)
Pollutant:	DDT
Decision:	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 site has significant sediment toxicity but it cannot be determined if the pollutant is likely to cause or contribute to any 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 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. No sediment quality guideline is 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. 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 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.
Evaluation Guideline:	BPTCP Reference envelope approach.
Data Used to Assess Water Quality:	Significant amphipod toxicity in 4 of 7 tests. Significant sea urchin toxicity in 3 of 7 tests (Hunt et al., 1998b).
Spatial Representation:	Data was synoptically collected with chemical and toxicity measurements at 7 sampling sites.
Temporal Representation:	Samples were collected during April 1995 and April 1997.
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:	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/ 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:	No sediment quality guideline is available that meets the requirements of section 6.1.3 of the Listing Policy.
Data Used to Assess Water Quality:	Seven measurements ranging in concentrations from 31.26 to 211.23 ppb (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 Leandro Bay (part of SF Bay, Central)

Pollutant: Diazinon

Decision: 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.

Five lines of evidence are available in the administrative record to assess this pollutant. The basis for listing in 1998 was ambient water toxicity and detections of diazinon in Bay waters. In the current assessment, the evaluation guideline available may not satisfy the requirements of the Listing Policy. Even if the guideline were used, all measurements are much lower than the recommended concentration. Recent measures of toxicity show that ambient water toxicity no longer exists in Bay waters. The RWQCB is also developing a Water Quality Attainment Strategy that calls for preventive actions to keep diazinon from entering the Bay.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification available 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 evaluation guideline may not 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. None of samples exceeded the draft guideline and ambient water toxicity in the Bay appears to have disappeared. These frequencies do not 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 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	Pollutant-Water
Beneficial Use:	ES - Estuarine Habitat
Matrix:	Water
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. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species. There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.
Evaluation Guideline:	For salt water, USEPA has developed draft water quality criteria of 820 ng/L (acute) and 400 ng/L (chronic). The use of these values may not comply with all the requirements of section 6.1.3 of the Listing Policy.
Data Used to Assess Water Quality:	1st sample site: None of the 17 samples exceeded, pollutant range: 240-32,000 pg/L, average: 3,555.0. 2nd sample site: None of the 16 samples exceeded, pollutant range: 370-13,000 pg/L, average: 2,898.0 (SFEI, 2001).
Spatial Representation:	Two sample sites.
Temporal Representation:	1st sample site: Date Range: 02/07/94-08/02/01. 2nd sample site: Date Range: 03/03/93-08/03/01
Data Quality Assessment:	SFEI RMP QA/QC program.

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	ES - Estuarine Habitat
Matrix:	Water
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. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species. There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.
Evaluation Guideline:	For salt water, USEPA has developed draft water quality criteria of 820 ng/L (acute) and 400 ng/L (chronic). The use of these values may not comply with all the requirements of section 6.1.3 of the Listing Policy.
Data Used to Assess Water Quality:	1st sample site: None of the 18 samples exceeded, pollutant range: 240-32,000 pg/L, average: 3,492.8. 2nd sample site: None of the 16 viable samples exceeded, pollutant range: 370-13,000 pg/L, average: 2,907.5 (SFEI, 2001).
Spatial Representation:	Two sample sites.
Temporal Representation:	1st sample site: Date Range: 02/07/94-08/02/01. 2nd sample site: Date Range: 03/03/93-08/03/01.
Data Quality Assessment:	SFEI RMP QA/QC program.

Line of Evidence	Narrative Description Data
Beneficial Use	ES - Estuarine Habitat
Information Used to Assess Water Quality:	Diazinon is one of the pollutants listed for this segment on the 2002 section 303(d) list. The data and information used to assess this pollutant-water segment is subsumed in diazinon listing for San Francisco Bay, Central. The conclusions drawn for San Francisco Bay, Central should be applied to this segment.

Line of Evidence	Toxicity
Beneficial Use	ES - Estuarine Habitat
Non-Numeric Objective:	Basin Plan: There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.
Data Used to Assess Water Quality:	Ambient water toxicity in San Francisco Bay appears to have disappeared. The results of ambient water toxicity monitoring at Mallard Island indicate a significant reduction in the frequency, duration, and magnitude of toxicity: 4-5% of the ambient water samples were toxic in 1998-99 (34 total samples) and 1999-2000 (23 samples), relative to 14% toxicity frequency observed in 1997-98 (27 samples); none of the 28 samples collected during the 2000-2001 season were significantly toxic. In addition, the 1998-2000 and 2000-2001 monitoring at Mallard Island did not document any sets of consecutively toxic samples indicative of an extended period of ambient water toxicity, such as were observed in February and May of 1998. The magnitude of toxicity (as reflected by the degree [or percentage] of test organism mortality) is also markedly reduced in the later years, indicating a reduction in the degree of ambient water toxicity. Subsequent RMP monitoring of ambient water toxicity in water samples collected from 10/2001 through 4/2003 also indicated an absence of toxicity to the test organisms (Ogle, 2004).

Line of Evidence	Narrative Description Data
Beneficial Use	ES - Estuarine Habitat
Information Used to Assess Water Quality:	In response to the RMP observations of ambient water toxicity, and given the linkage established between similar toxicity and pesticides in upstream ambient water, the SFBRWQCB identified all San Francisco Bay segments as being impaired due to Pesticides in 1998: Pesticides have been added as a cause of impairment to all Bay segments. The pesticide diazinon has been measured at levels that cause water column toxicity. The pesticide chlorpyrifos may also be a problem. This listing is consistent with listing of the Delta for these pesticides by the Central Valley Regional Water Quality Control Board. This listing was subsequently made specific for the organophosphate pesticide diazinon by the USEPA.

Non-Numeric Objective:	All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species. There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.

Region 2

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

Pollutant: Selenium

Decision: 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 site does has significant sediment toxicity but it cannot be determined if selenium (sediment) 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 sufficient justification in favor of removing selenium (sediment) from the section 303(d) list from the Water Quality Limited Segments category for this water body.

This conclusion is based on the staff findings that:
1. No sediment quality guideline is 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. 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 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.
Evaluation Guideline:	BPTCP Reference envelope approach.
Data Used to Assess Water Quality:	Significant amphipod toxicity in 4 of 7 tests. Significant sea urchin toxicity in 3 of 7 tests (Hunt et al., 1998b).
Spatial Representation:	Data was synoptically collected with chemical and toxicity measurements at 7 sampling sites.
Temporal Representation:	Samples were collected during April 1995 and April 1997.
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:	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/ 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:	No sediment quality guideline is available that meets the requirements of section 6.1.3 of the Listing Policy.
Data Used to Assess Water Quality:	Seven measurements ranging in concentrations from 0.528 to 2.830 ppm (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 Bay
Pollutant:	Diazinon
Decision:	Delist
Weight of Evidence:	This pollutant is being considered for removal from the 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. Four lines of evidence are available in the administrative record to assess this pollutant. The basis for listing in 1998 was ambient water toxicity and detections of diazinon in Bay waters. In the current assessment, the evaluation guideline available may not satisfy the requirements of the Listing Policy but even if the guideline were used all measurements are much lower than the recommended concentration. Recent measures of toxicity show that ambient water toxicity no longer exists in Bay waters. The RWQCB is also developing a Water Quality Attainment Strategy that calls for preventive actions to keep diazinon from entering the Bay. Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification available 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 evaluation guideline may not 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. None of samples exceeded the draft guideline and ambient water toxicity in the Bay appears to have disappeared. These frequencies do not 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 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	Pollutant-Water
Beneficial Use:	ES - Estuarine Habitat
Matrix:	Water
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. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species. There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.
Evaluation Guideline:	For salt water, USEPA has developed a draft water quality criteria of 820 ng/L (acute) and 400 ng/L (chronic). The use of these values may not comply with all the requirements of section 6.1.3 of the Listing Policy.
Data Used to Assess Water Quality:	1st sample site: 19 samples, pollutant range: 200-44,000 pg/L, average: 6,236.5. 2nd sample site: 18 samples, pollutant range: 260-43,902 pg/L, average: 8,809.1. 3rd sample site: 15 samples, pollutant range: 370-31,000 pg/L, average: 5,918.5(SFEI, 2001).
Spatial Representation:	Three sample sites.
Temporal Representation:	1st sample site: Date Range: 03/04/93-08/06/01. 2nd sample site: Date Range: 03/04/93-08/06/01 3rd sample site: Date Range: 03/04/93-08/06/01
Data Quality Assessment:	SFEI RMP QA/QC program.

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	ES - Estuarine Habitat
Matrix:	Water
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. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species. There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.
Evaluation Guideline:	For salt water, USEPA has developed a draft water quality criteria of 820 ng/L (acute) and 400 ng/L (chronic). The use of these values may not comply with all the requirements of section 6.1.3 of the Listing Policy.
Data Used to Assess Water Quality:	1st sample site: 19 samples, pollutant range: 450-44,320 pg/L, average: 6,339.4. 2nd sample site: 18 samples, pollutant range: 260-43,958 pg/L, average: 8,897.5. 3rd sample site: 15 samples, pollutant range: 370-31,190 pg/L, average: 6,028.4 (SFEI, 2001).
Spatial Representation:	Three sample sites.

Temporal Representation:	1st sample site: Date Range: 03/04/93-08/06/01. 2nd sample site: Date Range: 03/04/93-08/06/01 3rd sample site: Date Range: 03/04/93-08/06/01
Data Quality Assessment:	SFEI RMP QA/QC program.

Line of Evidence	Narrative Description Data
Beneficial Use	ES - Estuarine Habitat
Information Used to Assess Water Quality:	In response to the RMP observations of ambient water toxicity, and given the linkage established between similar toxicity and pesticides in upstream ambient water, the SFBRWQCB identified all San Francisco Bay segments as being impaired due to 'Pesticides' in 1998: 'Pesticides have been added as a cause of impairment to all Bay segments. The pesticide diazinon has been measured at levels that cause water column toxicity. The pesticide chlorpyrifos may also be a problem. This listing is consistent with listing of the Delta for these pesticides by the Central Valley Regional Water Quality Control Board.' This listing was subsequently made specific for the OP pesticide diazinon by the USEPA.

Line of Evidence	Toxicity
Beneficial Use	ES - Estuarine Habitat
Non-Numeric Objective:	Basin Plan: There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.
Data Used to Assess Water Quality:	Ambient water toxicity in San Francisco Bay appears to have disappeared. The results of ambient water toxicity monitoring at Mallard Island indicate a significant reduction in the frequency, duration, and magnitude of toxicity: 4-5% of the ambient water samples were toxic in 1998-99 (34 total samples) and 1999-2000 (23 samples), relative to 14% toxicity frequency observed in 1997-98 (27 samples); none of the 28 samples collected during the 2000-2001 season were significantly toxic. In addition, the 1998-2000 and 2000-2001 monitoring at Mallard Island did not document any sets of consecutively toxic samples indicative of an extended period of ambient water toxicity, such as were observed in February and May of 1998. Moreover, the magnitude of toxicity (as reflected by the degree [or percentage] of test organism mortality) is also markedly reduced in the later years, again suggesting a reduction in the degree of ambient water toxicity. Subsequent RMP monitoring of ambient water toxicity in water samples collected from October 2001 through April 2003, also indicated an absence of toxicity to the test organisms.

Region 2

Water Segment: Suisun Bay

Pollutant: Diazinon

Decision: Delist

Weight of Evidence: This pollutant is being considered for removal from the 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.

Four lines of evidence are available in the administrative record to assess this pollutant. The basis for listing in 1998 was ambient water toxicity and detections of diazinon in Bay waters. In the current assessment, the evaluation guideline available may not satisfy the requirements of the Listing Policy but even if the guideline were used all measurements are much lower than the recommended concentration. Recent measures of toxicity show that ambient water toxicity no longer exists in Bay waters. The RWQCB is also developing a Water Quality Attainment Strategy that calls for preventive actions to keep diazinon from entering the Bay.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification available 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 evaluation guideline may not 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. None of samples exceeded the draft guideline and ambient water toxicity in the Bay appears to have disappeared. These frequencies do not 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 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	Pollutant-Water
Beneficial Use:	ES - Estuarine Habitat
Matrix:	Water
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. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species. There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.
Evaluation Guideline:	For salt water, USEPA has developed a draft water quality criteria of 820 ng/L (acute) and 400 ng/L (chronic). The use of these values may not comply with all the requirements of section 6.1.3 of the Listing Policy.
Data Used to Assess Water Quality:	Seventeen samples, pollutant range: 540-58,000 pg/L, average: 7,288.6 (SFEI, 2001).
Spatial Representation:	One sample site.
Temporal Representation:	Date Range: 03/05/93-08/08/01.
Data Quality Assessment:	SFEI RMP QA/QC program.

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	ES - Estuarine Habitat
Matrix:	Water
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. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species. There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.
Evaluation Guideline:	For salt water, USEPA has developed a draft water quality criteria of 820 ng/L (acute) and 400 ng/L (chronic). The use of these values may not comply with all the requirements of section 6.1.3 of the Listing Policy.
Data Used to Assess Water Quality:	Seventeen samples, pollutant range: 540-58,350 pg/L, average: 7,332.4 (SFEI, 2001).
Spatial Representation:	One sample site.
Temporal Representation:	Date Range: 03/05/93-08/08/01.
Data Quality Assessment:	SFEI RMP QA/QC program.

Line of Evidence	Narrative Description Data
Beneficial Use	ES - Estuarine Habitat

Information Used to Assess Water Quality:	In response to the RMP observations of ambient water toxicity, and given the linkage established between similar toxicity and pesticides in upstream ambient water, the SFBRWQCB identified all San Francisco Bay segments as being impaired due to 'Pesticides' in 1998: 'Pesticides have been added as a cause of impairment to all Bay segments. The pesticide diazinon has been measured at levels that cause water column toxicity. The pesticide chlorpyrifos may also be a problem. This listing is consistent with listing of the Delta for these pesticides by the Central Valley Regional Water Quality Control Board.' This listing was subsequently made specific for the organophosphate pesticide diazinon by the USEPA.

Line of Evidence	Toxicity
Beneficial Use	ES - Estuarine Habitat
Non-Numeric Objective:	Basin Plan: There shall be no acute toxicity in ambient waters. There shall be no chronic toxicity in ambient waters.
Data Used to Assess Water Quality:	Ambient water toxicity in San Francisco Bay appears to have disappeared. The results of ambient water toxicity monitoring at Mallard Island indicate a significant reduction in the frequency, duration, and magnitude of toxicity: 4-5% of the ambient water samples were toxic in 1998-99 (34 total samples) and 1999-2000 (23 samples), relative to 14% toxicity frequency observed in 1997-98 (27 samples); none of the 28 samples collected during the 2000-2001 season were significantly toxic. In addition, the 1998-2000 and 2000-2001 monitoring at Mallard Island did not document any sets of consecutively toxic samples indicative of an extended period of ambient water toxicity, such as were observed in February and May of 1998. Moreover, the magnitude of toxicity (as reflected by the degree [or percentage] of test organism mortality) is also markedly reduced in the later years, again suggesting a reduction in the degree of ambient water toxicity. Subsequent RMP monitoring of ambient water toxicity in water samples collected from October 2001 through April 2003, also indicated an absence of toxicity to the test organisms (Ogle, 2004).

San Francisco Bay Region (2)

Area Change

Recommendations to change the area affected by pollutants on the section 303(d) List

Region 2

Water Segment:	San Francisco Bay, Lower
Pollutant:	
Decision:	Accept Area Change
Weight of Evidence:	The data and information in the administrative record supports this change in estimated size affected.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the estimated size affected should be changed as presented.
Lines of Evidence:	

Line of Evidence	Narrative Description Data
Beneficial Use	ES - Estuarine Habitat, WI - Wildlife Habitat
Data Used to Assess Water Quality:	The spatial definitions of San Francisco Bay, Lower and San Francisco Bay, South should be changed to conform with the NHD and CalWater 2.2 definitions of those two bay segments (i.e., make the border between the two at the Dumbarton Bridge). The attached shapefile is in Teale Albers, NAD27 and should be easily merged into the existing GeoWBS bay shapefile.

Region 2

Water Segment:	San Francisco Bay, South
Pollutant:	
Decision:	Accept Area Change
Weight of Evidence:	The data and information in the administrative record supports this change in estimated size affected.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the estimated size affected should be changed as presented.
Lines of Evidence:	

Line of Evidence	Narrative Description Data
Beneficial Use	ES - Estuarine Habitat, WI - Wildlife Habitat
Data Used to Assess Water Quality:	The spatial definitions of San Francisco Bay, Lower and San Francisco Bay, South should be changed to conform with the NHD and CalWater 2.2 definitions of those two bay segments (i.e., make the border between the two at the Dumbarton Bridge). The attached shapefile is in Teale Albers, NAD27 and should be easily merged into the existing GeoWBS bay shapefile.

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