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



November 2006

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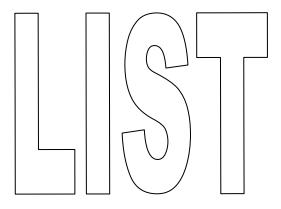


# Central Coast Region (3)

# Rewised Ract Sheets

New or Revised Fact Sheets

# Central Coast Region (3)



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

Water Segment: San Luis Obispo Creek (Below W Marsh Street)

Pollutant: Nutrients

Decision: List

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 EvidenceRemedial Program in PlaceBeneficial UseMU - Municipal & Domestic

Data Used to Assess Water A

Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The San Luis Obispo Creek Nutrient TMDL was approved by the RWQCB in September of 2005 and

subsequently approved by USEPA.

Water Segment: Santa Rita Creek (Monterey County)

Pollutant: Nitrate as Nitrate (NO3)

Decision: List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 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. Three 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. Three of 12 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 a

pollutant contributes to or causes the problem.

### Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: MU - Municipal & Domestic

Matrix: Water

Water Quality Objective/ Waters shall not contain concentrations of chemical constituents in excess of the limits specified in California Code of Regulations, Title 22,

Article 4, Chapter 15, Section 64435, Tables 2 and 3 as listed in Table 3-2 (Region 3 Basin Plan, p III-3; In Table 3-2, the MCL for Nitrate (as

NO3) in Domestic or Municipal Supply is 45 mg/L).

Data Used to Assess Water

Quality:

Three out of 12 samples exceeded the water quality objective for nitrate

(as NO3) for municipal and domestic supply (CCAMP, 2004).

Spatial Representation: Samples were collected from one site, SR1. Note that this site is a City of

Salinas storm water permit monitoring site and therefore, it is monitored

during storm water events.

Temporal Representation: Samples were collected from December 1999 through November 2000.

Environmental Conditions: Water body is located in the Salinas hydrologic unit.

Data Quality Assessment: City of Salinas storm water permit monitoring site. CCAMP, SWAMP.

# Central Coast Region (3)

# LIST AS BEING ADDRESSED

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

Water Segment: Carbonera Creek

Pollutant: Nutrients

**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. Based on the applicable factor, 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 data and 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 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 a TMDL has been approved by USEPA and an implementation plan

has been approved.

**Lines of Evidence:** 

Line of Evidence Remedial Program in Place

Beneficial Use WA - Warm Freshwater Habitat

Information Used to Assess

Water Quality:

A TMDL was approved by USEPA on January 14, 2003. The RWQCB is

tracking the implementation of the TMDL through the Nitrate Management Plan being implemented by Santa Cruz County.

Water Segment: Carbonera Creek

Pollutant: Sedimentation/Siltation

**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 WA - Warm Freshwater Habitat

Data Used to Assess Water

Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The San Lorenzo Sediment TMDL was approved by the RWQCB in May of 2003 and subsequently approved by

USEPA.

Water Segment: Chorro Creek

Pollutant: Fecal Coliform

**Decision:** List in Being Addressed Category

Weight of Evidence: This pollutant is being considered for delisting under sections 4.2 of the Listing

Policy. Under section 4.2 a single line of evidence is necessary to assess listing status. Two lines of evidence are available in the administrative record

to assess this pollutant.

Based on the readily available 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. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.

2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.

3. One hundred ninety-three of 869 samples exceed the water quality objectives, and these exceed the allowable frequency listed in Table 4.2 of the Listing Policy. However, a TMDL is in place to address this pollutant in this water body.

4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation:

After review of the available data and information 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 a TMDL has been approved by USEPA and an implementation plan has been approved.

### Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: R1 - Water Contact Recreation

Matrix: Water

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

any 30-day period exceed 400/100 ml.

Data Used to Assess Water

Quality:

One hundred ninety-three of 869 samples exceed the water quality

objectives.

Spatial Representation: Six stations were sampled.

Temporal Representation: There were weekly or bi-weekly sampling events from 6/93 to 5/99.

Data Quality Assessment: Morro Bay National Monitoring Program (MBNMP) QA/QC.

Line of Evidence Remedial Program in Place

Beneficial Use R1 - Water Contact Recreation

Information Used to Assess

Water Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Morro Bay Pathogens TMDL was approved by RWQCB on May 16, 2003 and subsequently approved by

Water Segment: Chorro Creek

Pollutant: Sedimentation/Siltation

**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 data and 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 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 a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

Beneficial Use WA - Warm Freshwater Habitat

Information Used to Assess

Water Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Morro Bay Sediment TMDL was

approved by RWQCB on May 16, 2003 and subsequently approved by

Water Segment: Chumash Creek

Pollutant: Fecal Coliform

**Decision:** List in Being Addressed Category

Weight of Evidence: This pollutant is being considered for delisting under sections 4.2 of the Listing

Policy. Under section 4.2 a single line of evidence is necessary to assess listing status. Two lines of evidence are available in the administrative record

to assess this pollutant.

Two lines of evidence are 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 data and 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. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
- 2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
- 3. Seventy of 246 samples exceed the water quality objective, and these exceed the allowable frequency listed in Table 4.2 of the Listing Policy. However, a TMDL is in place to address this pollutant in this water body. 4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

## SWRCB Staff Recommendation:

After review of the available data and information 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 a TMDL has been approved by USEPA and an implementation plan has been approved.

### **Lines of Evidence:**

Numeric Line of Evidence Pollutant-Water

Beneficial Use: R1 - Water Contact Recreation

Matrix: Water

Water Quality Objective/ Basin Plan: Fecal coliform concentration, based on minimum of not less than five samples or any 30-day period, shall not exceed a log mean of

200/100 ml, nor shall more than ten percent of the total samples during

any 30-day period exceed 400/100 ml.

Data Used to Assess Water

Quality:

Seventy of 246 samples exceed the water quality objective.

Spatial Representation: One station was monitored on Chumash Creek.

Temporal Representation: Weekly and bi-weekly sampling events occurred from 6/93 to 5/99.

Data Quality Assessment: Morro Bay National Monitoring Program.

Line of Evidence Remedial Program in Place

Beneficial Use R1 - Water Contact Recreation

Information Used to Assess

Water Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Morro Bay Pathogens TMDL was approved by RWQCB on May 16, 2003 and subsequently approved by

Water Segment: Dairy Creek

Pollutant: Fecal Coliform

**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, R2 - Non-Contact Recreation

Information Used to Assess

Water Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Morro Bay Pathogens TMDL was

approved by RWQCB on May 16, 2003 and subsequently approved by

Water Segment: Dairy Creek

Pollutant: Oxygen Saturation - Low Dissolved Oxygen

**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 EvidenceRemedial Program in PlaceBeneficial UseCO - Cold Freshwater Habitat

Deriencial Use CO - Colu Fleshwate

Data Used to Assess Water

Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Dairy Creek Dissolved Oxygen

TMDL was approved by the RWQCB in December of 2004 and

subsequently approved by USEPA.

Water Segment: Llagas Creek

Pollutant: Nutrients

**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 AG - Agricultural Supply

Data Used to Assess Water

Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Pajaro River Nutrients TMDL was

approved by the RWQCB in December of 2005 and subsequently

approved by USEPA.

Water Segment: Llagas Creek

Pollutant: Sedimentation/Siltation

**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 EvidenceRemedial Program in PlaceBeneficial UseCO - Cold Freshwater Habitat

Data Used to Assess Water

Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Pajaro River Sedimentation/Siltation

TMDL was approved by the RWQCB in December of 2005 and

subsequently approved by USEPA.

Water Segment: Lompico Creek

Pollutant: Nutrients

**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. Based on the applicable factor, 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 data and 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 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 a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

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

Information Used to Assess

Water Quality:

A TMDL was approved by USEPA on January 14, 2003. The RWQCB is

tracking the implementation of the TMDL through the Nitrate Management Plan being implemented by Santa Cruz County.

Water Segment: Lompico Creek

Pollutant: Sedimentation/Siltation

**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 WA - Warm Freshwater Habitat

Data Used to Assess Water

Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The San Lorenzo Sediment TMDL was

approved by the RWQCB in May of 2003 and subsequently approved by

USEPA.

Water Segment: Los Osos Creek

Pollutant: Fecal Coliform

**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 data and 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 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 a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

Beneficial Use R1 - Water Contact Recreation, R2 - Non-Contact Recreation

Information Used to Assess

Water Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Morro Bay Pathogens TMDL was approved by RWQCB on May 16, 2003 and subsequently approved by

Water Segment: Los Osos Creek

Pollutant: Nutrients

**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 AG - Agricultural Supply, WA - Warm Freshwater Habitat

Data Used to Assess Water

Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Los Osos Creek Nutrients TMDL was approved by the RWQCB in December of 2004 and subsequently

approved by USEPA.

Water Segment: Los Osos Creek

Pollutant: Sediment

**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 data and 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 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 a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

Beneficial Use WA - Warm Freshwater Habitat

Information Used to Assess

Water Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Morro Bay Sediment TMDL was approved by RWQCB on May 16, 2003 and subsequently approved by

Water Segment: Morro 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 data and 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 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 a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

Beneficial Use R1 - Water Contact Recreation, R2 - Non-Contact Recreation

Information Used to Assess

Water Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Morro Bay Pathogens TMDL was approved by RWQCB on May 16, 2003 and subsequently approved by

Water Segment: Morro Bay

Pollutant: Sedimentation/Siltation

**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 data and 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 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 a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

Beneficial Use ES - Estuarine Habitat

Information Used to Assess

Water Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Morro Bay Sediment TMDL was approved by RWQCB on May 16, 2003 and subsequently approved by

Water Segment: Pajaro River

Pollutant: Nutrients

**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 EvidenceRemedial Program in PlaceBeneficial UseCO - Cold Freshwater Habitat

Data Used to Assess Water

Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Pajaro River Nutrients TMDL was approved by the RWQCB in December of 2005 and subsequently

approved by USEPA.

Water Segment: Pajaro River

Pollutant: Sedimentation/Siltation

**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 EvidenceRemedial Program in PlaceBeneficial UseCO - Cold Freshwater Habitat

Data Used to Assess Water

Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Pajaro River Siltation/Sedimentation

TMDL was approved by the RWQCB in December of 2005 and

subsequently approved by USEPA.

Water Segment: Pennington Creek

Pollutant: Fecal Coliform

**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 data and 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 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 a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

Beneficial Use R1 - Water Contact Recreation, R2 - Non-Contact Recreation

Information Used to Assess

Water Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Morro Bay Pathogens TMDL was approved by RWQCB on May 16, 2003 and subsequently approved by

Water Segment: Rider Creek

Pollutant: Sedimentation/Siltation

**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 EvidenceRemedial Program in PlaceBeneficial UseCO - Cold Freshwater Habitat

Data Used to Assess Water

Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Pajaro River Siltation/Sedimentation

TMDL was approved by the RWQCB in December of 2005 and

subsequently approved by USEPA.

Water Segment: San Benito River

Pollutant: Sedimentation/Siltation

**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 WA - Warm Freshwater Habitat

Data Used to Assess Water

Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Pajaro River Sedimentation/Siltation

TMDL was approved by the RWQCB in December of 2005 and

subsequently approved by USEPA.

Water Segment: San Bernardo Creek

Pollutant: Fecal Coliform

**Decision:** List in Being Addressed Category

Weight of Evidence: This pollutant is being considered for listing under section 2.2 and 3.2 of the

Listing Policy. Under these sections 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 data and 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 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 a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

Beneficial Use R1 - Water Contact Recreation, R2 - Non-Contact Recreation

Information Used to Assess

Water Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Morro Bay Pathogens TMDL was approved by RWQCB on May 16, 2003 and subsequently approved by

USEPA on January 20, 2004.

Water Segment: San Lorenzo River

Pollutant: Nutrients

**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. Based on the applicable factor, 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 data and 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 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 a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

Beneficial Use WA - Warm Freshwater Habitat

Information Used to Assess

Water Quality:

A TMDL was approved by USEPA on January 14, 2003. The RWQCB is

tracking the implementation of the TMDL through the Nitrate

Management Plan (adopted into the Basin Plan) being implemented by

Santa Cruz County.

Water Segment: San Lorenzo River

Pollutant: Sediment

**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 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 a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of EvidenceRemedial Program in PlaceBeneficial UseAG - Agricultural Supply

Information Used to Assess

Water Quality:

The San Lorenzo River Sediment TMDL for this water segment-pollutant combination was approved by the RWQCB in May 2003. USEPA

approved the TMDL on February 19, 2004.

Water Segment: San Luis Obispo Creek (Below W Marsh Street)

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 EvidenceRemedial Program in PlaceBeneficial UseR1 - Water Contact Recreation

Data Used to Assess Water

Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The San Luis Obispo Creek Pathogen

TMDL was approved by the RWQCB in December of 2004 and

subsequently approved by USEPA.

Water Segment: San Luisito Creek

Pollutant: Total Fecal Coliform

**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 data and 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 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 a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

Beneficial Use R1 - Water Contact Recreation, R2 - Non-Contact Recreation

Information Used to Assess

Water Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Morro Bay Pathogens TMDL was approved by RWQCB on May 16, 2003 and subsequently approved by

USEPA on January 20, 2004.

Water Segment: Shingle Mill Creek

Pollutant: Nutrients

**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. Based on the applicable factor, 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 data and 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 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 a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

Beneficial Use WA - Warm Freshwater Habitat

Information Used to Assess

Water Quality:

A TMDL was approved by USEPA on January 14, 2003. The RWQCB is

tracking the implementation of the TMDL through the Nitrate Management Plan being implemented by Santa Cruz County.

Water Segment: Shingle Mill Creek

Pollutant: Sedimentation/Siltation

**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 WA - Warm Freshwater Habitat

Data Used to Assess Water

Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The San Lorenzo River Sediment TMDL

was approved by the RWQCB in May of 2003 and subsequently

approved by USEPA.

Water Segment: Walters Creek

Pollutant: Fecal Coliform

**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 Morro Bay Pathogens TMDL was

approved by the RWQCB in May of 2003 and subsequently approved by

USEPA.

Water Segment: Warden Creek

Pollutant: Fecal Coliform

**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 data and 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 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 a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

Beneficial Use R1 - Water Contact Recreation, R2 - Non-Contact Recreation

Information Used to Assess

Water Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Morro Bay Pathogens TMDL was approved by RWQCB on May 16, 2003 and subsequently approved by

USEPA on January 20, 2004.

Water Segment: Watsonville Slough

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 WA - Warm Freshwater Habitat

Data Used to Assess Water Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Watsonville Slough Pathogens TMDL was approved by the RWQCB in March of 2006 and subsequently

approved by USEPA.

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# Central Coast Region (3)

# Original Fact Sheets

Fact Sheets Not Changed from September 2005 Version

# Central Coast Region (3)



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

Water Segment: Arroyo Paredon

Pollutant: Boron

Decision: List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 a single line of

evidence is necessary to assess listing status.

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

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 16 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 a pollutant contributes to or causes the problem.

#### Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: AG - Agricultural Supply

Matrix: Water

Water Quality Objective/ Water Quality Criterion: Waters shall not contain concentrations of chemical constituents in amounts which adversely affect the agricultural beneficial use. In addition, waters used for irrigation and livestock watering shall not exceed concentrations for those chemicals listed in Table 3-4 (Region 3 Basin Plan, Section II.A.2 Objectives for all inland surface waters, enclosed bay, and estuaries, page III-5). In Table 3-4 of the Basin Plan (page III-9), the maximum concentration for boron for irrigation supply is 0.75 mg/L.

Data Used to Assess Water

Quality:

Nine out of 16 samples exceeded the water quality objective for agricultural water use/ irrigation supply for boron (SWAMP, 2004;

CCAMP, 2004).

Spatial Representation: Samples were collected from one site.

Temporal Representation: Samples were collected from January 2001 through March 2002.

The water body is located in the South Coast hydrologic unit, South Coast hydrologic area, and Carpinteria hydrologic subarea. The site Environmental Conditions:

location is Arroyo Paredon Creek at Via Real (315APC).

CCAMP, SWAMP QAPP. Data Quality Assessment:

Water Segment: Arroyo Paredon

**Pollutant:** Nitrate as Nitrate (NO3)

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 a single line of

evidence is necessary to assess listing status.

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

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. Fourteen of 16 samples exceeded the MCL 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-Water

Beneficial Use: MU - Municipal & Domestic

Matrix: Water

Water Quality Objective/ Waters shall not contain concentrations of chemical constituents in excess of the limits specified in California Code of Regulations, Title

excess of the limits specified in California Code of Regulations, Title 22, Article 4, Chapter 15, Section 64435, Tables 2 and 3 as listed in Table 3-2 (Region 3 Basin Plan, p III-3; In Table 3-2, the MCL for Nitrate (as

NO3) in Domestic or Municipal Supply is 45 mg/L.

Data Used to Assess Water

Quality:

Fourteen out of 16 samples exceeded the water quality objective for nitrate (as NO3) for municipal and domestic supply (SWAMP, 2004;

CCAMP, 2004).

Spatial Representation: Samples were collected from one site.

Temporal Representation: Samples were collected from January 2001 through March 2002.

The water body is located in the South Coast hydrologic unit, South Coast hydrologic area, and Carpinteria hydrologic subarea. The site location is Arroyo Paredon Creek at Via Real (315APC). Environmental Conditions:

CCAMP, SWAMP QAPP. Data Quality Assessment:

Arroyo Paredon **Water Segment:** 

Pollutant: Toxicity

Decision: List

This pollutant is being considered for placement on the section 303(d) list Weight of Evidence:

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 2 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 a

pollutant contributes to or causes the problem.

#### Lines of Evidence:

Numeric Line of Evidence **Toxicity** 

Beneficial Use: RA - Rare & Endangered Species, SP - Fish Spawning, WA - Warm

Freshwater Habitat, WI - Wildlife Habitat

Matrix: Water

Water Quality Objective/ Water Quality Criterion:

Basin Plan: All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with this objective shall be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, toxicity bioassays of appropriate duration, or other

appropriate methods as specified by the Regional Board.

Survival of aquatic life in surface waters subjected to a waste discharge

or other controllable water quality conditions, shall not be less than that for the same water body in areas unaffected by the waste discharge or, when necessary, for other control water that is consistent with the requirements for "experimental water" as described in Standard Methods

for the Examination of Water and Wastewater, latest edition.

Data Used to Assess Water

Quality:

Two out of two 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 met). Both toxic samples were tested using the 7-day Ceriodaphnia dubia test (SWAMP, 2004). Please note QA qualifier under

Data Quality Assessment section below.

Spatial Representation: Both samples were collected from the same station (Arroyo Paredon)

Paredon Creek at Via Real.

Temporal Representation: Samples were collected December 3, 2001 and March 19, 2002. Toxicity

in the survival endpoint was detected in both these samples.

**Environmental Conditions:** Arroyo Paredon is in the South Coast Hydrologic Unit.

Data Quality Assessment: SWAMP; QA qualifier indicated for the sample collected March 19, 2002

reported "minor deviations in water quality parameters".

Water Segment: Bell Creek (Santa Barbara Co)

**Pollutant:** Nitrate as Nitrate (NO3)

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 a single line of

evidence is necessary to assess listing status.

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

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. Fifteen of 17 samples exceeded the MCL 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-Water

Beneficial Use: CM - Commercial and Sport Fishing (CA), MU - Municipal & Domestic

Matrix: Water

Water Quality Objective/ Waters shall not contain concentrations of chemical constituents in excess of the limits specified in California Code of Regulations, Title

excess of the limits specified in California Code of Regulations, Title 22, Article 4, Chapter 15, Section 64435, Tables 2 and 3 as listed in Table 3-2 (Region 3 Basin Plan, p III-3). In Table 3-2, the MCL for Nitrate (as

NO3) in Domestic or Municipal Supply is 45 mg/L.

Data Used to Assess Water

Quality:

Fifteen out of 17 samples exceeded the water quality objective for nitrate

(as NO3) for municipal and domestic supply (SWAMP, 2004).

Spatial Representation: Samples were collected from one site.

Temporal Representation: Samples were collected from January 2001 through March 2002.

Environmental Conditions:

The water body is located in the South Coast hydrologic unit, Arguello hydrologic area, Arguello hydrologic subarea. The monitoring site is located at Bell Creek on Bacara Resort Access Road (315BEL).

SWAMP QAPP. Data Quality Assessment:

Water Segment: Bradley Canyon Creek

**Pollutant:** Ammonia (Unionized) - Toxin

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 a single line of

evidence is necessary to assess listing status.

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

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification 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 7 samples exceeded the criterion for unionized ammonia 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-Water

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

Matrix: Water

Water Quality Objective/ The discharge of wastes shall not cause concentrations of unionized ammonia (NH3) to exceed 0.025 mg/L (as N) in receiving waters (Region

3 Basin Plan, Section II.A.2. Objectives for All Inland Surface Waters, Enclosed Bays, and Estuaries, II.A.2.a. General Objectives, page III-4).

Data Used to Assess Water Three of

Quality:

Three out of seven samples exceeded the general water quality objective

(CCAMP, 2004; SWAMP, 2004).

Spatial Representation: Data were collected at site 312BCF on Bradley Canyon Creek, in Santa

Barbara County.

Temporal Representation: Samples were collected from April 2000 to December 2000.

Environmental Conditions:

Water body is located in the Santa Maria Hydrologic Unit. The site is identified as Bradley Canyon Diversion Channel at Foxen Canyon Road

(312BCF).

CCAMP, SWAMP QAPP. Data Quality Assessment:

QA/QC Equivalent: Samples were taken according to CCAMP protocols.

Bradley Canyon Creek **Water Segment:** 

Pollutant: Nitrate as Nitrate (NO3)

Decision: List

This pollutant is being considered for placement on the section 303(d) list Weight of Evidence:

under section 3.1 of the Listing Policy. Under section 3.1 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. Four 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. Four of 9 samples exceeded the MCL 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

After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should be placed on the section Recommendation: 303(d) list because applicable water quality standards are exceeded and a

pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: MU - Municipal & Domestic

Matrix: Water

Water Quality Objective/ Waters shall not contain concentrations of chemical constituents in Water Quality Criterion:

excess of the limits specified in California Code of Regulations, Title 22, Article 4, Chapter 15, Section 64435, Tables 2 and 3 as listed in Table 3-2 (Region 3 Basin Plan, p III-3; In Table 3-2, the MCL for Nitrate (as

NO3) in Domestic or Municipal Supply is 45 mg/L).

Data Used to Assess Water

Quality:

Four out of nine samples exceeded the water quality objective for nitrate (as NO3) for municipal and domestic supply (CCAMP, 2004; SWAMP,

2004).

Spatial Representation: Samples were collected from 2 sites. All samples with exceedances were collected from one site (312BCF).

Temporal Representation: Samples were collected from March 2000 to December 2000.

Environmental Conditions:

The water body is located in the Santa Maria hydrologic unit, Guadalupe hydrologic subarea. The site is located at Bradley Canyon Diversion Channel (312BCF) and Bradley Canyon Creek at Orcut-Garey Road

(312BCG).

Data Quality Assessment: CCAMP, SWAMP QAPP.

Water Segment: Bradley Channel

**Pollutant:** Nitrate as Nitrate (NO3)

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 a single line of

evidence is necessary to assess listing status.

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

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification 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 15 samples exceeded the MCL 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-Water

Beneficial Use: MU - Municipal & Domestic

Matrix: Water

Water Quality Objective/ Waters shall not contain concentrations of chemical constituents in excess of the limits specified in California Code of Regulations, Title

excess of the limits specified in California Code of Regulations, Title 22, Article 4, Chapter 15, Section 64435, Tables 2 and 3 as listed in Table 3-2 (Region 3 Basin Plan, p III-3; In Table 3-2, the MCL for Nitrate (as

NO3) in Domestic or Municipal Supply is 45 mg/L).

Data Used to Assess Water

Quality:

Three out of 15 samples exceeded the water quality objective for nitrate (as NO3) for municipal and domestic supply (CCAMP, 2004; SWAMP,

2004).

Spatial Representation: Samples were collected from one site.

Temporal Representation: Samples were collected from January 2000 to February 2001.

Environmental Conditions:

The water body is located in the Santa Maria hydrologic unit, Guadalupe hydrologic subarea. The site is located at Bradley Channel upstream of ponds (312BCU).

CCAMP, SWAMP QAPP. Data Quality Assessment:

Water Segment: Canada De La Gaviota

Pollutant: Boron

Decision: List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 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. About half of the measurements exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of 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. Fifteen of 32 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 a pollutant contributes to or causes the problem.

#### Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: AG - Agricultural Supply

Matrix: Water

Water Quality Objective/ Water Quality Criterion: Waters shall not contain concentrations of chemical constituents in amounts which adversely affect the agricultural beneficial use. In addition, waters used for irrigation and livestock watering shall not exceed concentrations for those chemicals listed in Table 3-4 (Region 3 Basin Plan, Section II.A.2 Objectives for all inland surface waters, enclosed bay, and estuaries, page III-5). In Table 3-4 of the Basin Plan (page III-9), the maximum concentration for boron for irrigation supply is 0.75 mg/L.

Data Used to Assess Water

Quality:

Fifteen out of 32 samples exceeded the water quality objective for agricultural water use/irrigation supply for boron (CCAMP, 2004;

SWAMP, 2004).

Spatial Representation:

Samples were collected from two sites. Exceedances were detected in

samples collected from both sites.

Temporal Representation:

Samples were collected from January 2001 to July 2002.

Environmental Conditions:

This water body is located in the South Coast hydrologic unit, Arguello hydrologic area, Arguello hydrologic subarea. The monitoring sites are located at Canada de la Gaviota at State Park Entrance (315GAV) and

Canada de la Gaviota at Highway 1 (315GAI).

Data Quality Assessment:

CCAMP and SWAMP QAPP.

Water Segment: Carneros Creek

**Pollutant:** Ammonia (Unionized) - Toxin

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 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. Three samples exceeded 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. Three of 9 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 a

pollutant contributes to or causes the problem.

#### Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: CO - Cold Freshwater Habitat, MI - Fish Migration, RA - Rare &

Endangered Species, SP - Fish Spawning, WA - Warm Freshwater

Habitat, WI - Wildlife Habitat

Matrix: Water

Water Quality Objective/ The discharge of wastes shall not cause concentrations of unionized ammonia (NH3) to exceed 0.025 mg/L (as N) in receiving waters (Region

3 Basin Plan, Section II.A.2. Objectives for All Inland Surface Waters, Enclosed Bays, and Estuaries, II.A.2.a. General Objectives, page III-4)

Data Used to Assess Water

Quality:

Three out of 9 samples exceeded the general water quality objective

(CCAMP, 2004; SWAMP, 2004).

Spatial Representation: Samples were collected from one site.

Temporal Representation: Samples were collected from March 1999 to March 2000.

Water body is located in the Bolsa Nueva hydrologic unit. The site is Carneros Creek in Los Lomas at Blohm Road (306CAR). Environmental Conditions:

CCAMP, SWAMP QAPP. Data Quality Assessment:

Water Segment: Casmalia Canyon Creek

**Pollutant:** Sedimentation/Siltation

**Decision:** List

Weight of Evidence: The data and information in the administrative record supports this change in

the original listing recommendation. There was a misunderstanding of the applicable water body recommended for listing by staff. This change will

correct that mistake.

The correction is requested for San Antonio Creek (South Coast Watershed) Sedimentation/Siltation. This water body was incorrectly assigned to a sedimentation/siltation problem. The correct water bodies are Shuman Canyon Creek and Casmalia Canyon Creek. The 303(d) List Table should be revised to remove San Antonio Creek (South Coast Watershed) for Sedimentation/Siltation and add Casmalia Canyon Creek (4.5 miles) and Shuman Canyon Creek (3.0 miles) (313004) for Sedimentation/Siltation. The original listing recommendation originated with Regional Board staff, however

there was a misunderstanding of the applicable water body recommended for listing by staff. This change will correct that mistake.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that a water body was incorrectly assigned to a sedimentation/siltation problem and that the listing should be revised with this water body and the listing should be changed as presented.

Lines of Evidence:

**Line of Evidence** Pollutant-Water

Beneficial Use AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), MU -

Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SP - Fish Spawning, WA - Warm Freshwater Habitat, WI -

Wildlife Habitat

Data Used to Assess Water

Quality:

The correction is requested for San Antonio Creek (South Coast Watershed) Sedimentation/Siltation. This water body was incorrectly assigned to a sedimentation/siltation problem. The correct water bodies

are Shuman Canyon Creek and Casmalia Canyon Creek.

The 303(d) List Table should be revised to remove San Antonio Creek (South Coast Watershed) for Sedimentation/Siltation and add Casmalia Canyon Creek (4.5 miles) and Shuman Canyon Creek (3.0 miles)

(313004) for Sedimentation/Siltation.

The original listing recommendation originated with Regional Board staff, however there was a misunderstanding of the applicable water body recommended for listing by staff. This change will correct that mistake.

Spatial Representation: The sampling site was 4.5 miles.

Temporal Representation: Correction Submittal on 6/14/2004.

Chorro Creek **Water Segment:** 

Pollutant: Oxygen, Dissolved

Decision: List

This pollutant is being considered for placement on the section 303(d) list Weight of Evidence:

under section 3.2 of the Listing Policy. Under section 3.2 a single line of

evidence is necessary to assess listing status.

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

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification 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 10 samples exceeded the COLD dissolved oxygen water quality objective and this exceeds the allowable frequency listed in Table 3.2 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 Adverse Biological Responses

Beneficial Use: AG - Agricultural Supply, BI - Preserva.of Bio. Hab. of Spec. Signif., CM -

Commercial and Sport Fishing (CA), CO - Cold Freshwater Habitat, FR -Freshwater Replenishment, GW - Groundwater Recharge, MI - Fish Migration, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, SP -Fish Spawning, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix: Water

Water Quality Objective/ COLD dissolved oxygen water quality objective of 7.0 mg/l. Water Quality Criterion:

Data Used to Assess Water Regional Board staff is proposing that Chorro Creek (downstream of Quality:

Chorro Creek Road) be listed as impaired for dissolved oxygen. The

impairment is evidenced by depressed levels of dissolved oxygen measured during pre-dawn and 24-hour sampling periods.

Continuous depressed levels of dissolved oxygen (< 7.0 mg/l) were found in Chorro Creek at TWB (approximately between 12a.m-8a.m.) during three 24-hour hourly sampling periods in July, August and September 2003. Continuous depressed levels of oxygen were also found between 5 p.m. and 7 a.m. at site added in September 2003 upstream of TWB (usTWB) (CCRWQCB, 2004o).

Dissolved oxygen levels were within the COLD water quality objective at CAN during three 24-hour hourly sampling periods in July, August and September 2003 (CCAMP, 2004). Dissolved oxygen levels just under the COLD water quality objective (6.81-6.99 mg/l) were found during one of three sampling periods at an upstream site (CHO) in August 2003. Regional Board staff does not consider the segment upstream of CAN (and CHO) as impaired.

Regional Board staff considers the segment between usTWB and TWB (downstream of Chorro Creek Road) as impaired for dissolved oxygen. The level of impairment between CAN and usTWB is unknown. Five out of 10 samples exceeded the COLD dissolved oxygen water quality objective.

Spatial Representation: Chorro Creek (Calwater watershed no. 31022012) downstream of Chorro

Creek Road. Measurements were taken in Chorro Creek at four locations

(CHO, CAN, usTWB, and TWB).

Temporal Representation: Hourly measurements were taken in three 24-hour hourly sampling

periods in July, August, and September 2003.

Environmental Conditions: Hourly dissolved oxygen measurements were taken using a recording

dissolved oxygen meter.

Data Quality Assessment: Dissolved oxygen measurements in Chorro Creek were taken according

to CCAMP 24-hour hourly recording meter sampling protocols. Morro Bay

Volunteer Monitoring Program.

Water Segment: Cuyama River

Pollutant: Boron

Decision: List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 a single line of

evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this

pollutant. Six samples exceed the water quality objective.

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 35 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 a

pollutant contributes to or causes the problem.

## Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: AG - Agricultural Supply

Matrix: Water

Water Quality Objective/ Water Quality Criterion: Waters shall not contain concentrations of chemical constituents in amounts which adversely affect the agricultural beneficial use. In addition, waters used for irrigation and livestock watering shall not exceed concentrations for those chemicals listed in Table 3-4 (Region 3 Basin Plan, Section II.A.2 Objectives for all inland surface waters, enclosed bay, and estuaries, page III-5). In Table 3-4 of the Basin Plan (page III-9), the maximum concentration for boron for irrigation supply is 0.75 mg/L.

Data Used to Assess Water

Quality:

Six out of 35 samples exceeded the water quality objective for agricultural water use/ irrigation supply for boron (CCAMP, 2004;

SWAMP, 2004).

Spatial Representation:

Samples were collected from four sites. Exceedances were detected

from samples collected at one station (312CCC).

Temporal Representation:

Samples were collected from January 2000 to April 2001.

Environmental Conditions:

The water body is located in the Santa Maria hydrologic unit, Cuyama Valley hydrologic area, Cuyama Valley hydrologic subarea. The monitoring sites are located at Cuyama River at Highway 33 (312CAV)

monitoring sites are located at Cuyama River at Highway 33 (312CAV), Cuyama River above Lockwood turnoff (312CUL), Cuyama River downstream Buckhorn Road (312CUY), and Cuyama River downstream

Cottonwood Canyon (312CCC).

Data Quality Assessment:

CCAMP, SWAMP QAPP

Water Segment: Franklin Creek

**Pollutant:** Nitrate as Nitrate (NO3)

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 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. Most of the measurements exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of 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. Twenty-six of 28 samples exceeded the MCL 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-Water

Beneficial Use: MU - Municipal & Domestic

Matrix: Water

Water Quality Objective/ Waters shall not contain concentrations of chemical constituents in excess of the limits specified in California Code of Regulations, Title

excess of the limits specified in California Code of Regulations, Title 22, Article 4, Chapter 15, Section 64435, Tables 2 and 3 as listed in Table 3-2 (Region 3 Basin Plan, p III-3; In Table 3-2, the MCL for Nitrate (as

NO3) in Domestic or Municipal Supply is 45 mg/L).

Data Used to Assess Water

Quality:

Twenty-six out of 28 samples exceeded the water quality objective for nitrate (as NO3) for municipal and domestic supply (CCAMP, 2004.

SWAMP, 2004).

Spatial Representation: Samples collected from one site.

Temporal Representation: Samples were collected from January 2001 to March 2003.

Environmental Conditions:

Water body is located in the South Coast hydrologic unit, Carpinteria hydrologic subarea. The site location is Franklin Creek at Carpinteria Ave

(315FRC).

CCAMP, SWAMP QAPP. Data Quality Assessment:

Water Segment: Gabilan Creek

**Pollutant:** Nitrate as Nitrate (NO3)

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 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. Two measurements exceeded 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 the 6 samples exceeded the MCL 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-Water

Beneficial Use: MU - Municipal & Domestic

Matrix: Water

Water Quality Objective/ Waters shall not contain concentrations of chemical constituents in excess of the limits specified in California Code of Regulations, Title

excess of the limits specified in California Code of Regulations, Title 22, Article 4, Chapter 15, Section 64435, Tables 2 and 3 as listed in Table 3-2 (Region 3 Basin Plan, p III-3; In Table 3-2, the MCL for Nitrate (as

NO3) in Domestic or Municipal Supply is 45 mg/L.).

Data Used to Assess Water

Quality:

There were 6 total samples taken by CCAMP staff. Out of the 6 samples, 2 exceeded the water quality objective for nitrate (as NO3) for municipal

and domestic supply (CCAMP, 2004; SWAMP, 2004).

Spatial Representation: Samples were collected from two sites.

Temporal Representation: Samples were collected from July 1999 to February 2000.

Environmental Conditions:

The water body is located in the Salinas hydrologic unit, Gabilan Range hydrologic subarea. The sites are Gabilan Creek at Independence Road and East Boranda Road (309GAB), "City of Salinas Urban GC1-M."

CCAMP, SWAMP QAPP. Data Quality Assessment:

Water Segment: Glen Annie Canyon

**Pollutant:** Nitrate as Nitrate (NO3)

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 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. The majority of 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. Twelve of 15 samples exceeded the MCL 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-Water

Beneficial Use: MU - Municipal & Domestic

Matrix: Water

Water Quality Objective/ Waters shall not contain concentrations of chemical constituents in excess of the limits specified in California Code of Regulations, Title

excess of the limits specified in California Code of Regulations, Title 22, Article 4, Chapter 15, Section 64435, Tables 2 and 3 as listed in Table 3-2 (Region 3 Basin Plan, p III-3; In Table 3-2, the MCL for Nitrate (as

NO3) in Domestic or Municipal Supply is 45 mg/L).

Data Used to Assess Water

Quality:

Twelve out of 15 samples exceeded the water quality objective for nitrate (as NO3) for municipal and domestic supply (CCAMP, 2004; SWAMP,

2004).

Spatial Representation: Samples collected from one site.

Temporal Representation: Samples were collected from February 2001 to March 2002.

Environmental Conditions:

The water body is located in the South Coast hydrologic area, Goleta hydrologic subarea. The site is located at Glenn Annie upstream Hollister Road (Site I.D. #315ANN).

CCAMP, SWAMP QAPP. Data Quality Assessment:

Water Segment: Llagas Creek

**Pollutant:** Nitrate as Nitrate (NO3)

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 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. Half of the measurements exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of 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. Thirty-three of 69 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 a pollutant contributes to or causes the problem.

## Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: MU - Municipal & Domestic

Matrix: Water

Water Quality Objective/ Waters shall not contain concentrations of chemical constituents in excess of the limits specified in California Code of Regulations, Title

excess of the limits specified in California Code of Regulations, Title 22, Article 4, Chapter 15, Section 64435, Tables 2 and 3 as listed in Table 3-2 (Region 3 Basin Plan, p III-3; In Table 3-2, the MCL for Nitrate (as

NO3) in Domestic or Municipal Supply is 45 mg/L).

Data Used to Assess Water

Quality:

Thirty-three out of 69 samples exceeded the water quality objective for nitrate (as NO3) for municipal and domestic supply (CCAMP, 2004;

SWAMP, 2004).

Spatial Representation: Samples were collected from six sites. Exceedances were detected in

samples collected from three of the six sites.

Temporal Representation: Samples were collected from December 1997 to January 1999.

Environmental Conditions: This water body was listed for nutrients in 2002 but not for nitrate

specifically.

The water body is located in the Pajaro River hydrologic unit, South Santa Clara Valley hydrologic area, South Santa Clara Valley hydrologic

subarea. The sites are located at Llagas Creek at Holsclaw and Leavesley Roads (305HOL), Llagas Creek at Bloomfield Avenue

(305LLA), Llagas Creek at Luchessa Avenue/Southside Drive (305LUC), Llagas Creek at Monterey Road (305MON) Llagas Creek at Oak Glen Avenue (305OAK), Llagas Creek at Buena Vista Avenue (305VIS).

Data Quality Assessment: CCAMP, SWAMP QAPP.

Water Segment: Main Street Canal

**Pollutant:** Ammonia (Unionized) - Toxin

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 a single line of

evidence is necessary to assess listing status.

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

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

This conclusion is based on the staff findings that:

1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.

2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.

3. Ten of 11 samples exceeded the unionized ammonia numeric 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 a pollutant contributes to or causes the problem.

## Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

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

Matrix: Water

Water Quality Objective/ Water Quality Criterion: The discharge of wastes shall not cause concentrations of unionized ammonia (NH3) to exceed 0.025 mg/L (as N) in receiving waters (Region 3 Basin Plan, Section II.A.2. Objectives for All Inland Surface Waters, Enclosed Bays, and Estuaries, II.A.2.a. General Objectives, page III-4)

Data Used to Assess Water

Quality:

Ten out of 11 samples exceeded the general water quality objective

(CCAMP, 2004; SWAMP, 2004).

Spatial Representation: Data were collected at site 312MSD on Main Street Canal, in Santa

Barbara County.

Temporal Representation: Samples were collected from February 2000 to January 2001.

Environmental Conditions: Water body is located on the Santa Maria hydrologic unit, Guadalupe

hydrologic subarea. The site is called Main Street Canal upstream Ray

Road at Hwy 166 (Site #312MSD).

In 2000, this site was an open agriculture ditch downstream of the city stormwater drain. This year (2005) the channel is being reconstructed to flow underground through pipes to a location approximately 100 feet

downstream of this monitoring site.

Data Quality Assessment: CCAMP, SWAMP QAPP.

QA/QC Equivalent: Samples were taken according to CCAMP protocols.

Water Segment: Moro Cojo Slough

**Pollutant:** Ammonia (Unionized) - Toxin

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 a single line of

evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this

pollutant. Several samples 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. Four of 18 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 a

pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: CO - Cold Freshwater Habitat, ES - Estuarine Habitat, RA - Rare &

Endangered Species, SP - Fish Spawning, WA - Warm Freshwater

Habitat, WI - Wildlife Habitat

Matrix: Water

Water Quality Objective/ The discharge of wastes shall not cause concentrations of unionized

Water Quality Criterion: ammonia (NH3) to exceed 0.025 mg/L (as N) in receiving waters (Region

3 Basin Plan, Section II.A.2. Objectives for All Inland Surface Waters, Enclosed Bays, and Estuaries, II.A.2.a. General Objectives, page III-4)

Data Used to Assess Water

Quality:

Four out of 18 samples exceeded the general water quality objective

(CCAMP, 2004; SWAMP, 2004).

Spatial Representation: Samples were collected from two sites. All exceedances were detected in

samples collected from one site (Site 306MOR). This site is tidally influenced and flow was observed moving into the slough out of the harbor (instead of flowing out to the harbor) on numerous occasions.

Temporal Representation: Samples were collected from March 1999 to March 2000.

Environmental Conditions: Water body is located in the Bolsa Nueva (Elkhorn Slough) Hydrologic

Unit, Bolsa Nueva hydrologic subarea, Moro Cojo Slough planning watershed. The sites are located at Moro Cojo Slough at Moss Landing Harbor (306MCM) and Moro Cojo Slough at Highway 1 (306MOR).

Note: in the Region 3 Basin Plan, Moro Cojo Slough is listed under the Salinas Hydrologic Unit (309). The Region 3 CCAMP/SWAMP Monitoring classifies this water body under the Bolsa Nueva hydrologic unit (306) to

be in agreement with the CalWater designation.

Data Quality Assessment: CCAMP, SWAMP QAPP.

Water Segment: Morro Bay

Pollutant: Oxygen, Dissolved

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.2 of the Listing Policy. Under section 3.2 a single line of

evidence is necessary to assess listing status.

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

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification 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 hundred and thirty-one of 283 samples exceeded the water quality objective and this exceeds the allowable frequency listed in Table 3.2 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 EvidenceAdverse Biological ResponsesBeneficial Use:CO - Cold Freshwater Habitat

Matrix: -N/A

Water Quality Objective/ Water Quality Criterion: MAR = Marine Habitat

Evaluation Guideline: COLD Dissolved Oxygen = 7.0 mg/L.

Data Used to Assess Water

Quality:

Regional Board staff is proposing that Morro Bay be listed as impaired for dissolved oxygen. The impairment is evidenced by depressed levels of dissolved oxygen measured during pre-dawn and 24-hour sampling periods. Two Hundred and thirty one data points (of a total of 283 data points) collected between 1997 and 2002 fell below the water quality

objective of 7.0 mg/L (CCRWQCB, 2004o). Depressed oxygen levels were found at all sampling locations except for EEL. There were 231 out of 283 samples that exceeded the COLD dissolved oxygen water quality

objective.

Spatial Representation: Morro Bay Estuary (Calwater watershed no. 31023012), San Luis Obispo

County. Samples were collected at 8 locations throughout the bay: ATP,

SPM, Lo2, PSP, EEL, Ch1, CSI, and SHI.

Temporal Representation: Single measurements were taken in the Morro Bay estuary using a hand-

held meter. Measurements were taken during pre-dawn conditions from

4/17/1997 through 12/132002.

Environmental Conditions: Samples were primarily taken during pre-dawn conditions, when

dissolved oxygen levels are expected to be lowest.

QA/QC Equivalent: Samples were taken according to the Morro Bay Volunteer Monitoring

Program protocols for pre-dawn sampling in the Morro Bay National

Estuary Programs Quality Assurance Program Plan.

The Morro Bay Volunteer Monitoring Program staff has monthly correspondence with volunteers regarding data review, meter operation, and safety. Volunteer monitors collect dissolved oxygen data according to the Morro Bay National Estuary Programs Quality Assurance Program

Plan.

Water Segment: Natividad Creek

**Pollutant:** Nitrate as Nitrate (NO3)

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 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. Three samples 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. Three of 5 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 a

pollutant contributes to or causes the problem.

#### Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: MU - Municipal & Domestic

Matrix: Water

Water Quality Objective/ Waters shall not contain concentrations of chemical constituents in excess of the limits specified in California Code of Regulations, Title

excess of the limits specified in California Code of Regulations, Title 22, Article 4, Chapter 15, Section 64435, Tables 2 and 3 as listed in Table 3-2 (Region 3 Basin Plan, p III-3). In Table 3-2, the MCL for Nitrate (as

NO3) in Domestic or Municipal Supply is 45 mg/L.

Data Used to Assess Water

Quality:

Three out of five samples exceeded the water quality objective for nitrate

(as NO3) for municipal and domestic supply (CCAMP, 2004).

Spatial Representation: Samples were collected from one site.

Temporal Representation: Samples were collected January 2000 to May 2000. This site is a City of

Salinas Storm water permit monitoring site and therefore it is monitored

during storm water events.

The water body is located in the Salinas hydrologic unit, Gabilan range hydrologic area, Gabilan range hydrologic subarea. NC1\_M is identified Environmental Conditions:

as "City of Salinas Urban NC1\_M".

City of Salinas MS4 Permit Monitoring. CCAMP data. Data Quality Assessment:

Old Salinas River Estuary **Water Segment:** 

Pollutant: Ammonia (Unionized) - Toxin

Decision: List

This pollutant is being considered for placement on the section 303(d) list Weight of Evidence:

under section 3.1 of the Listing Policy. Under section 3.1 a single line of

evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this

pollutant. Six 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. Six of 48 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 a

pollutant contributes to or causes the problem.

#### Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: CM - Commercial and Sport Fishing (CA), WA - Warm Freshwater

Habitat

Matrix: Water

Water Quality Objective/ Water Quality Criterion:

ammonia (NH3) to exceed 0.025 mg/L (as N) in receiving waters (Region 3 Basin Plan, Section II.A.2. Objectives for All Inland Surface Waters.

Enclosed Bays, and Estuaries, II.A.2.a. General Objectives, page III-4).

The discharge of wastes shall not cause concentrations of unionized

Data Used to Assess Water

Quality:

Six out of 48 samples exceeded the general water quality objective

(SWAMP, 2004).

Spatial Representation: Samples were collected from two sites. Exceedances were detected in

water samples collected from one (site ID #309OLD) of the two sites.

Temporal Representation: Samples were collected from March 1999 to March 2003.

Environmental Conditions:

The water body is located in the Salinas hydrologic unit. The sites are located at Old Salinas River at Monterey Dunes Way (309OLD) and Old Salinas River at Potrero Road (309POT).

SWAMP QAPP. Data Quality Assessment:

Water Segment: Orcutt Creek

**Pollutant:** Ammonia (Unionized) - Toxin

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 a single line of

evidence is necessary to assess listing status.

Two lines of evidence are available in the administrative record to assess this pollutant. A sufficient number of samples exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification 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. Fifteen of 59 total water samples exceeded the water quality objective of 0.025 mg/l 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-Water

Beneficial Use: AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO -

Cold Freshwater Habitat, ES - Estuarine Habitat, FR - Freshwater Replenishment, GW - Groundwater Recharge, MU - Municipal &

Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation,

RA - Rare & Endangered Species, WI - Wildlife Habitat

Matrix: Water

Water Quality Objective/ Water Quality Criterion: The discharge of wastes shall not cause concentrations of unionized ammonia (NH3) to exceed 0.025 mg/L (as N) in receiving waters (Region 3 Basin Plan, Section II.A.2. Objectives for All Inland Surface Waters, Enclosed Bays, and Estuaries, II.A.2.a. General Objectives, page III-4).

Data Used to Assess Water Quality:

Spatial Representation:

From new listing proposal: Regional Board staff is proposing that multiple water bodies (including Orcutt Solomon Creek) within the Santa Maria watershed be listed for unionized ammonia. The impairment is evidenced by levels of unionized ammonia greater than the general numeric water quality objective of 0.025 mg/l. The Regional Board assessed CCAMP data and results are as follows for two sites on Orcutt Solomon Creek: 3 of 11 and 5 of 12 data points exceed the criterion.

See CCAMP data for further information (CCAMP, 2004). This constituent was not included in the last (2002) data evaluation because data had not been processed in time to meet the 2002 deadline.

Data were collected at sites 312ORB and 312ORI on Orcutt Solomon

Creek, in Santa Barbara County.

Temporal Representation: Unknown - see CCAMP data.

QA/QC Equivalent: Samples were taken according to CCAMP protocols.

Numeric Line of Evidence Pollutant-Water

Beneficial Use: AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO -

> Cold Freshwater Habitat, ES - Estuarine Habitat, FR - Freshwater Replenishment, GW - Groundwater Recharge, MU - Municipal &

Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation,

RA - Rare & Endangered Species, WI - Wildlife Habitat

Matrix: Water

Water Quality Objective/ Water Quality Criterion:

The discharge of wastes shall not cause concentrations of unionized ammonia (NH3) to exceed 0.025 mg/L (as N) in receiving waters (Region 3 Basin Plan, Section II.A.2. Objectives for All Inland Surface Waters. Enclosed Bays, and Estuaries, II.A.2.a. General Objectives, page III-4).

Data Used to Assess Water

Quality:

Seven out of 36 samples exceeded the water quality objective (SWAMP,

2004).

Spatial Representation:

Samples were collected from three sites. Exceedances were detected in

water samples collected from all sites.

Temporal Representation:

Samples were collected from January 2000 to April 2001.

Environmental Conditions:

The water body is located in the Santa Maria hydrologic unit, Guadalupe hydrologic subarea, Orcutt Creek planning watershed. Monitoring sites are located at Orcutt Solomon Creek at Black Road (#312ORB), Orcutt Solomon Creek upstream Santa Maria River (#312ORC) and Orcutt

Solomon Creek at Highway 1 (312ORI).

SWAMP QAPP. Data Quality Assessment:

Water Segment: Orcutt Creek

**Pollutant:** Chlorpyrifos

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 a single line of

evidence is necessary to assess listing status.

Two lines of evidence are available in the administrative record to assess this pollutant. A sufficient number of samples exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification 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 4 samples exceeded the Basin Plan general water quality objective; 2 of 2 samples were in exceedance of the aquatic life criteria 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-Water

Beneficial Use: AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO -

Cold Freshwater Habitat, ES - Estuarine Habitat, FR - Freshwater Replenishment, GW - Groundwater Recharge, MU - Municipal &

Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation,

RA - Rare & Endangered Species, WI - Wildlife Habitat

Matrix: Water

Water Quality Objective/ Water Quality Criterion: General WQOs: All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental

physiological responses in, human, plant, animal, or aquatic life. Compliance with the objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, toxicity bioassays of appropriate duration, or other appropriate methods.

No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life.

Evaluation Guideline:

CDFG Hazardous Assessment Criteria for Aquatic Life: 4-day average = 0.014 ppb, 1-hour day average = 0.025 ppb.

Data Used to Assess Water Quality:

Water was sampled at Orcutt Creek (ORC) and in the Santa Maria River (SMA) on four separate occasions (June 2002, September 2002, March 2003, and May 2003) (SWAMP, 2004). Water was toxic at both stations in September 2002 and May 2003 (4 exceedances of 4 measurements). Analysis of chlorpyrifos in water showed that on all occasions when water toxicity was observed, concentrations of chlorpyrifos exceeded the LC 50 for this pesticide for toxicity to Ceriodaphnia dubia. Toxicity Identification Evaluations of water samples from Orcutt Creek and the Santa Maria River showed toxicity to C. dubia was due to chlorpyrifos. At the station on Orcutt Creek, 2 of 2 samples were in exceedance of the aquatic life criteria.

Spatial Representation:

Samples were collected at one station on Orcutt Creek (a tributary to the Santa Maria River).

Temporal Representation:

Samples were collected on 9/3/2002 and 5/28/2003.

QA/QC Equivalent:

Quality assurance and quality control procedures were identical to those used in the Surface Water Ambient Monitoring Program (SWAMP). The toxicity and chemistry laboratories participating in this study are the same labs responsible for the SWAMP QAPP, and are the labs participating in the SWAMP program.

## Numeric Line of Evidence

Pollutant-Sediment

Beneficial Use:

AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO -Cold Freshwater Habitat, ES - Estuarine Habitat, FR - Freshwater Replenishment, GW - Groundwater Recharge, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WI - Wildlife Habitat

Matrix:

Sediment

Water Quality Objective/ Water Quality Criterion:

General WQOs: All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with the objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, toxicity bioassays of appropriate duration, or other appropriate methods.

No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or

aquatic life.

Data Used to Assess Water

Quality:

Sediment was sampled at Orcutt Creek (ORC) and in the Santa Maria River (SMA) on two separate occasions (June 2002 and May 2003).

Sediment was toxic at both stations in both samples (SWAMP, 2004). Analysis of chlorpyrifos in sediment porewater showed that on all occasions when water toxicity was observed, concentrations of chlorpyrifos exceeded the LC50 for this pesticide to the amphipod Hyalella azteca. Toxicity Identification Evaluations of sediment samples from Orcutt Creek and the Santa Maria River showed toxicity was due to a combination of chlorpyrifos and other pesticides, likely pyrethroid pesticides (refer to attached excel spreadsheet file). Sediment bulkphase chemical analyses showed elevated concentrations of chlorpyrifos.

Spatial Representation:

Samples were collected at one station on Orcutt Creek (a tributary to the Santa Maria River).

Temporal Representation:

Samples were collected in 5/28/2003.

QA/QC Equivalent:

Quality assurance and quality control procedures for the primary study were identical to those used in the Surface Water Ambient Monitoring Program (SWAMP). The toxicity and chemistry laboratories participating in this study are the same labs responsible for the SWAMP QAPP, and are the labs participating in the SWAMP program.

Water Segment: Orcutt Creek

**Pollutant:** DDT

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 a single line of

evidence is necessary to assess listing status.

Six lines of evidence are available in the administrative record to assess this pollutant. Three lines of evidence pertain to the pollutant in water and three pertain to the pollutant in sediment. A sufficient number of samples exceed the Human Health criteria for the different types of degradation products of DDT.

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 water 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. Samples were taken in 2002 and 2003. Two of 2 samples (2002 and 2003) exceeded the total DDT, 2 of 2 samples exceeded 4,4' DDD, and 2 of 2 samples exceeded the 4,4' DDE Human Health (water consumption) criteria and these exceed the allowable frequency listed in Table 3.1 of the Listing Policy. Even though sediment toxicity was found in 2003 the measurements of these chemicals in the sediment did not exceed the sediment guideline. 5.Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

# SWRCB Staff Recommendation:

After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should 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-Water

Beneficial Use: AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO -

Cold Freshwater Habitat, ES - Estuarine Habitat, FR - Freshwater Replenishment, GW - Groundwater Recharge, MU - Municipal &

Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation,

RA - Rare & Endangered Species, WI - Wildlife Habitat

Matrix: Water

Water Quality Objective/ Water Quality Criterion: General WQOs:

All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with the objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, toxicity bioassays of

appropriate duration, or other appropriate methods.

No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or

aquatic life.

CTR criteria for:

Freshwater acute = 1.1 ppb for 4,4'-DDT and DDTs (total). Human Health (water consumption) = 0.00059 ppb for 4,4'-DDT. Human Health (water consumption) = 0.0059 ppb for DDTs (total).

Data Used to Assess Water

Quality:

Samples were collected on Orcutt Creek on two occasions: in 2002 and 2003 (SWAMP, 2004). Both measurements for total DDTs and 4,4'-DDT were below freshwater acute criteria, however both measurements exceeded human health criteria for water consumption for both 4,4'-DDT and DDTs (total).

Spatial Representation:

Samples were collected at one station on Orcutt Creek (a tributary to the Santa Maria River).

Temporal Representation:

Samples were collected on 9/3/2002 and 5/28/2003.

QA/QC Equivalent:

Quality assurance and quality control procedures were identical to those used in the Surface Water Ambient Monitoring Program (SWAMP). The toxicity and chemistry laboratories participating in this study are the same labs responsible for the SWAMP QAPP, and are the labs participating in

the SWAMP program.

Numeric Line of Evidence

Pollutant-Sediment

Beneficial Use:

AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO - Cold Freshwater Habitat, ES - Estuarine Habitat, FR - Freshwater Replenishment, GW - Groundwater Recharge, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation,

RA - Rare & Endangered Species, WI - Wildlife Habitat

Matrix:

Sediment

Water Quality Objective/ Water Quality Criterion:

General WQOs:

All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with the objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, toxicity bioassays of appropriate duration, or other appropriate methods.

No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life.

Freshwater Sediment Criteria (Policy):

DDT(sum) = 62.9 ppbDDTs(total) = 572

Data Used to Assess Water

Quality:

Sediment was sampled at Orcutt Creek (ORC) and in the Santa Maria River (SMA) in 2002 and 2003 (SWAMP, 2004). In the Orcutt Creek sample, the sediment criterion for DDT (sum) was exceeded (62.9 ppb) in the 2003 sample, but not in 2002 sample. The DDTs (total) criterion (572 ppb) was not exceeded on either occasion.

Spatial Representation: Samples were collected at one station on Orcutt Creek (a tributary to the

Santa Maria River).

Samples were collected on 6/28/2002 and 5/28/2003. Temporal Representation:

QA/QC Equivalent: Quality assurance and quality control procedures for the primary study

were identical to those used in the Surface Water Ambient Monitoring Program (SWAMP). The toxicity and chemistry laboratories participating in this study are the same labs responsible for the SWAMP QAPP, and

are the labs participating in the SWAMP program.

Numeric Line of Evidence

Pollutant-Water

Beneficial Use: AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO -

> Cold Freshwater Habitat, ES - Estuarine Habitat, FR - Freshwater Replenishment, GW - Groundwater Recharge, MU - Municipal &

Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation,

RA - Rare & Endangered Species, WI - Wildlife Habitat

Water Matrix:

Water Quality Objective/ Water Quality Criterion:

General WQOs:

All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with the objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, toxicity bioassays of

appropriate duration, or other appropriate methods.

No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or

aquatic life.

CTR criteria for:

Human Health (water consumption) = 0.00083 ppb for 4,4'-DDD.

Data Used to Assess Water

Quality:

Samples were collected on Orcutt Creek on two occasions: in 2002 and 2003 (SWAMP, 2004). Both measurements for 4,4'-DDD exceeded the

human health criteria for water consumption (0.00083 ppb).

Samples were collected at one station on Orcutt Creek (a tributary to the Spatial Representation:

Santa Maria River).

Temporal Representation:

Samples were collected on 9/3/2002 and 5/28/2003.

QA/QC Equivalent:

Quality assurance and quality control procedures were identical to those used in the Surface Water Ambient Monitoring Program (SWAMP). The toxicity and chemistry laboratories participating in this study are the same labs responsible for the SWAMP QAPP, and are the labs participating in

the SWAMP program.

#### Numeric Line of Evidence

Pollutant-Sediment

Beneficial Use:

AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO -Cold Freshwater Habitat, ES - Estuarine Habitat, FR - Freshwater Replenishment, GW - Groundwater Recharge, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation.

RA - Rare & Endangered Species, WI - Wildlife Habitat

Matrix:

Sediment

Water Quality Objective/ Water Quality Criterion:

General WQOs:

All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with the objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, toxicity bioassays of

appropriate duration, or other appropriate methods.

No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or

aquatic life.

Freshwater Sediment Criteria (Policy):

DDD(sum) = 28.0 ppb.

Data Used to Assess Water

Quality:

Sediment was sampled at Orcutt Creek (ORC) and in the Santa Maria River (SMA) in 2002 and 2003 (SWAMP, 2004). In the Orcutt Creek sample, the sediment criterion for DDD (sum) was not exceeded on

either occasion.

Spatial Representation: Samples were collected at one station on Orcutt Creek (a tributary to the

Santa Maria River).

Temporal Representation:

Samples were collected on 6/28/2002 and 5/28/2003.

QA/QC Equivalent:

Quality assurance and quality control procedures for the primary study were identical to those used in the Surface Water Ambient Monitoring Program (SWAMP). The toxicity and chemistry laboratories participating in this study are the same labs responsible for the SWAMP QAPP, and

are the labs participating in the SWAMP program.

Numeric Line of Evidence

Pollutant-Water

Beneficial Use:

AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO - Cold Freshwater Habitat, ES - Estuarine Habitat, FR - Freshwater Replenishment, GW - Groundwater Recharge, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation,

RA - Rare & Endangered Species, WI - Wildlife Habitat

Matrix:

Water

Water Quality Objective/ Water Quality Criterion: General WQOs:

All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with the objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, toxicity bioassays of appropriate duration, or other appropriate methods.

No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life.

CTR criteria for:

Human Health (water consumption) = 0.00059 ppb for 4,4'-DDE.

Data Used to Assess Water

Quality:

Samples were collected on Orcutt Creek on two occasions: in 2002 and 2003 (SWAMP, 2004). Both measurements for 4,4'-DDE exceeded the human health criteria for water consumption (0,00059 ppb).

Spatial Representation:

Samples were collected at one station on Orcutt Creek (a tributary to the

Santa Maria River).

Temporal Representation:

Samples were collected on 9/3/2002 and 5/28/2003.

QA/QC Equivalent:

Quality assurance and quality control procedures were identical to those used in the Surface Water Ambient Monitoring Program (SWAMP). The toxicity and chemistry laboratories participating in this study are the same labs responsible for the SWAMP QAPP, and are the labs participating in the SWAMP program.

Numeric Line of Evidence

Pollutant-Sediment

Beneficial Use:

AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO - Cold Freshwater Habitat, ES - Estuarine Habitat, FR - Freshwater Replenishment, GW - Groundwater Recharge, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WI - Wildlife Habitat

Matrix:

Sediment

Water Quality Objective/ Water Quality Criterion: General WQOs:

All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with the objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, toxicity bioassays of appropriate duration, or other appropriate methods.

....

No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life.

Freshwater Sediment Criteria:

DDE(sum) = 31.3 ppb

Data Used to Assess Water

Quality:

Sediment was sampled at Orcutt Creek (ORC) and in the Santa Maria River (SMA) in 2002 and 2003 (SWAMP, 2004). In the Orcutt Creek sample, the sediment criterion for DDE (sum) was exceeded in 2003, but

not in 2002.

Spatial Representation: Samples were collected at one station on Orcutt Creek (a tributary to the

Santa Maria River).

Temporal Representation: Samples were collected on 6/28/2002 and 5/28/2003.

QA/QC Equivalent: Quality assurance and quality control procedures for the primary study

were identical to those used in the Surface Water Ambient Monitoring Program (SWAMP). The toxicity and chemistry laboratories participating in this study are the same labs responsible for the SWAMP QAPP, and

are the labs participating in the SWAMP program.

Water Segment: Orcutt Creek

**Pollutant:** Dieldrin

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 a single line of

evidence is necessary to assess listing status.

Two lines of evidence are available in the administrative record to assess this pollutant. A sufficient number of samples exceed the CTR Human Health

criteria.

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 2 samples exceeded the CTR Human Heath criteria and this exceeds the allowable frequency listed in Table 3.1. Sediment samples were taken but dieldrin results were below the detection limits.

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-Sediment

Beneficial Use: AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO -

Cold Freshwater Habitat, ES - Estuarine Habitat, FR - Freshwater Replenishment, GW - Groundwater Recharge, MU - Municipal &

Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation,

RA - Rare & Endangered Species, WI - Wildlife Habitat

Matrix: Sediment

Water Quality Objective/ General WQOs:

Water Quality Criterion: All waters shall be maintained free of toxic substances in concentrations

which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with the objective

will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, toxicity bioassays of appropriate duration, or other appropriate methods.

No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life.

Freshwater Sediment criterion: max Dieldrin = 6.18 ppm.

Data Used to Assess Water Quality:

Sediment was sampled at Orcutt Creek (ORC) in May 2003 and the dieldrin level was below the detection limit (SWAMP, 2004).

Spatial Representation:

The sample was collected at one station on Orcutt Creek (a tributary to the Santa Maria River).

Temporal Representation:

One sample was collected on 5/28/2003.

QA/QC Equivalent:

Quality assurance and quality control procedures for the primary study were identical to those used in the Surface Water Ambient Monitoring Program (SWAMP). The toxicity and chemistry laboratories participating in this study are the same labs responsible for the SWAMP QAPP, and are the labs participating in the SWAMP program.

## Numeric Line of Evidence

Pollutant-Water

Beneficial Use:

AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO - Cold Freshwater Habitat, ES - Estuarine Habitat, FR - Freshwater Replenishment, GW - Groundwater Recharge, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WI - Wildlife Habitat

Matrix:

Water

Water Quality Objective/ Water Quality Criterion: General WQOs:
All waters shall be maintained free of toxic substances in concentrations
which are toxic to or which produce detrimental physiological responses

which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with the objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, toxicity bioassays of

appropriate duration, or other appropriate methods.

No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life.

CTR Human Health Criterion for consumption of Water & Organisms = 0.00014 ppb.

Data Used to Assess Water Quality:

Samples were collected on Orcutt Creek in September 2002 and May 2003 (SWAMP, 2004). Two of 2 samples were in exceedance of the CTR Human Health criterion for water consumption.

Spatial Representation:

Samples were collected at one station on Orcutt Creek (a tributary to the Santa Maria River).

Temporal Representation:

Samples were collected on 9/3/2002 and 5/28/2003.

QA/QC Equivalent:

Quality assurance and quality control procedures were identical to those used in the Surface Water Ambient Monitoring Program (SWAMP). The toxicity and chemistry laboratories participating in this study are the same labs responsible for the SWAMP QAPP, and are the labs participating in the SWAMP program.

Water Segment: Oso Flaco Creek

**Pollutant:** Ammonia (Unionized) - Toxin

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 a single line of

evidence is necessary to assess listing status.

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

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification 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 12 samples exceeded the water quality objective of 0.025 mg/l 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-Water

Beneficial Use: AG - Agricultural Supply, BI - Preserva.of Bio.Hab.of Spec.Signif., CM -

Commercial and Sport Fishing (CA), FR - Freshwater Replenishment, GW - Groundwater Recharge, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA - Warm Freshwater Habitat, WI - Wildlife

Habitat

Matrix: Water

Water Quality Objective/ Water Quality Criterion: The discharge of wastes shall not cause concentrations of unionized ammonia (NH3) to exceed 0.025 mg/L (as N) in receiving waters (Region 3 Basin Plan, Section II.A.2. Objectives for All Inland Surface Waters, Enclosed Bays, and Estuaries, II.A.2.a. General Objectives, page III-4).

Data Used to Assess Water Levels of unionized ammonia greater than the general numeric water

Quality: quality objective of 0.025 mg/l (CCAMP, 2004; SWAMP, 2004). Nine of

12 data points exceed the water quality objective.

Spatial Representation: Data were collected at site 3120FC on Oso Flaco Creek, in San Luis

Obispo County.

Temporal Representation: Samples were collected from February 2000 to January 2001.

Environmental Conditions: Water body is located in the Santa Maria hydrologic unit, Guadalupe

hydrologic subarea. Monitoring site is located at Oso Flaco Creek at Oso

Flaco Lake Road (#3120FC).

Data Quality Assessment: CCAMP, SWAMP QAPP.

Oso Flaco Lake **Water Segment:** 

Pollutant: Dieldrin

Decision: List

This pollutant is being considered for placement on the section 303(d) list Weight of Evidence:

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 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:

Pollutant-Tissue Numeric Line of Evidence

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

Matrix: Tissue

Water Quality Objective/ Central Coast RWQCB Basin Plan: No individual pesticide or Water Quality Criterion:

combination of pesticides shall reach concentrations that adversely affect

beneficial uses. There shall be no increase in pesticide concentrations

found in bottom sediments or aquatic life.

Evaluation Guideline: 2 ng/g (OEHHA Screening Value) (Brodberg & Pollock, 1999).

Data Used to Assess Water

Quality:

Three out of 3 samples exceeded (TSMP, 2002). A total of 2 filet composite samples of bluegill and one filet composite of hitch were collected. Bluegill were collected from 1993. Hitch were collected 2001.

The guideline was exceeded in all samples.

Spatial Representation: One station located in lake at foot of Oso Flaco Road.

Temporal Representation: Samples were collected 1993 and 2001. Data Quality Assessment:

Toxic Substances Monitoring Program 1992-93 Data Report. Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of Fish

and Game.

Water Segment: Pajaro River

Pollutant: Boron

Decision: List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 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. Most samples 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. Ten of 16 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 a

pollutant contributes to or causes the problem.

#### Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: AG - Agricultural Supply

Matrix: Water

Water Quality Objective/ Water Quality Criterion: Waters shall not contain concentrations of chemical constituents in amounts which adversely affect the agricultural beneficial use. In addition, waters used for irrigation and livestock watering shall not exceed concentrations for those chemicals listed in Table 3-4 (Region 3 Basin Plan, Section II.A.2 Objectives for all inland surface waters, enclosed bay, and estuaries, page III-5). In Table 3-4 of the Basin Plan (page III-9), the maximum concentration for boron for irrigation supply is 0.75 mg/L.

Data Used to Assess Water Ten out of 16 samples exceeded the water quality objective for

Quality: agricultural water use/irrigation supply for boron (CCAMP, 2004;

SWAMP, 2004).

Spatial Representation: Samples were collected from one site.

Temporal Representation: Samples were collected from January 2001 through March 2002.

Environmental Conditions: The water body is located in Pajaro River Hydrologic Unit, Watsonville

Hydrologic Subarea. The monitoring site is located on the Pajaro River at

Thurwachter Bridge (305THU).

Data Quality Assessment: CCAMP, SWAMP QAPP.

Water Segment: Prefumo Creek

**Pollutant:** Nitrate as Nitrate (NO3)

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 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. Nearly all samples exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification 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. Fourteen of 15 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
After review of the availal that the water body-pollut

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-Water

Beneficial Use: MU - Municipal & Domestic

Matrix: Water

Water Quality Objective/ Waters shall not contain concentrations of chemical constituents in excess of the limits specified in California Code of Regulations, Title

excess of the limits specified in California Code of Regulations, Title 22, Article 4, Chapter 15, Section 64435, Tables 2 and 3 as listed in Table 3-2 (Region 3 Basin Plan, p III-3; In Table 3-2, the MCL for Nitrate (as

NO3) in Domestic or Municipal Supply is 45 mg/L).

Data Used to Assess Water

Quality:

Fourteen out of 15 samples exceeded the water quality objective for nitrate (as NO3) for municipal and domestic supply (CCAMP, 2004,

SWAMP, 2004).

Spatial Representation: Samples were collected from one site.

Temporal Representation: Samples were collected from January 2002 through March 2003.

Environmental Conditions:

Water body is located in the Estero Bay hydrologic unit, Point Buchon hydrologic area, San Luis Obispo Creek hydrologic subarea. Monitoring site is located at Prefumo Creek Calle Joaquin (310PRE).

CCAMP, SWAMP QAPP. Data Quality Assessment:

Water Segment: Quail Creek

**Pollutant:** Nitrate as Nitrate (NO3)

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 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. Half of the measurements exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of 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 8 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 a pollutant contributes to or causes the problem.

#### Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: MU - Municipal & Domestic

Matrix: Water

Water Quality Objective/ Waters shall not contain concentrations of chemical constituents in excess of the limits specified in California Code of Regulations, Title

excess of the limits specified in California Code of Regulations, Title 22, Article 4, Chapter 15, Section 64435, Tables 2 and 3 as listed in Table 3-2 (Region 3 Basin Plan, p III-3; In Table 3-2, the MCL for Nitrate (as

NO3) in Domestic or Municipal Supply is 45 mg/L).

Data Used to Assess Water

Quality:

Four out of eight samples exceeded the water quality objective for nitrate (as NO3) for municipal and domestic supply (CCAMP, 2004; SWAMP,

2004).

Spatial Representation: Samples were collected from two sites. Exceedances were detected in

samples collected at one site (309QUA).

Temporal Representation: Samples were collected from February 1999 through February 2000.

Environmental Conditions: The water body is located in the Salinas Bay hydrologic unit, Chualar

hydrologic area, and Chualar hydrologic subarea. The monitoring sites area located at Quail Creek at Old Stage Road (309UQA) and Quail

Creek at Potter Road (309QUA).

Data Quality Assessment: CCAMP, SWAMP QAPP.

Water Segment: Rincon Creek

Pollutant: Boron

Decision: List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 a single line of

evidence is necessary to assess listing status.

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

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 of 21 samples exceeded the boron 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 a

pollutant contributes to or causes the problem.

#### Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: AG - Agricultural Supply

Matrix: Water

Water Quality Objective/ Water Quality Criterion: Waters shall not contain concentrations of chemical constituents in amounts which adversely affect the agricultural beneficial use. In addition, waters used for irrigation and livestock watering shall not exceed concentrations for those chemicals listed in Table 3-4 (Region 3 Basin Plan, Section II.A.2 Objectives for all inland surface waters, enclosed bay, and estuaries, page III-5). In Table 3-4 of the Basin Plan (page III-9), the maximum concentration for boron for irrigation supply is 0.75 mg/L.

Data Used to Assess Water

Quality:

Seven out of 21 samples exceeded the water quality objective for

agricultural water use/ irrigation supply for boron (CCAMP, 2004;

SWAMP, 2004).

Spatial Representation: Samples were collected from one site.

Samples were collected from January 2001 through July 2002. Temporal Representation:

The water body is located in the South Coast hydrologic unit, South Environmental Conditions:

Coast hydrologic area, Carpinteria hydrologic subarea. The monitoring site is located at Rincon Creek at Bates Road, upstream of Highway 101

(315RIN).

CCAMP, SWAMP QAPP. Data Quality Assessment:

Water Segment: Rincon 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 toxicity single line

of evidence is can be used to assess listing status.

One line of evidence is available in the administrative record to assess this

pollutant. Two measurements exhibit 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 2 samples displayed significant toxicity in the survival endpoint using the 7-day Pimephales promelas test. This exceeded the narrative water quality objective and 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 Toxicity

Beneficial Use: CO - Cold Freshwater Habitat, MI - Fish Migration, RA - Rare &

Endangered Species, SP - Fish Spawning, 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 which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth

anomalies, toxicity bioassays of appropriate duration, or other

appropriate methods as specified by the Regional Board.

Survival of aquatic life in surface waters subjected to a waste discharge or other controllable water quality conditions, shall not be less than that for the same water body in areas unaffected by the waste discharge or, when necessary, for other control water that is consistent with the requirements for "experimental water" as described in Standard Methods for the Examination of Water and Wastewater, latest edition. As a minimum, compliance with this objective shall be evaluated with a 96-hour bioassay.

Data Used to Assess Water

Quality:

Two out of two 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 is less than the evaluation threshold (both criteria are met). Both samples were tested using the 7-day Pimephales promelas test (SWAMP, 2004). Please note QA qualifier

under Data Quality Assessment section below.

Spatial Representation: Both samples were collected from the same station, Rincon Creek at

Bates Road.

Temporal Representation: Samples were collected December 3, 2001 and March 19, 2002. Toxicity

in the survival endpoint was detected in both these samples.

Environmental Conditions: Rincon Creek is in the South Coast Hydrologic Unit.

Data Quality Assessment: SWAMP; QA qualifier indicated for the sample collected March 19, 2002.

This is reported as minor deviations in water quality parameters.

Water Segment: Salinas Reclamation Canal

**Pollutant:** Ammonia (Unionized) - Toxin

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 a single line of

evidence is necessary to assess listing status.

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

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 14 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 a pollutant contributes to or causes the problem.

#### Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix: Water

Water Quality Objective/ The discharge of wastes shall not cause concentrations of unionized ammonia (NH3) to exceed 0.025 mg/L (as N) in receiving waters (Region

3 Basin Plan, Section II.A.2. Objectives for All Inland Surface Waters, Enclosed Bays, and Estuaries, II.A.2.a. General Objectives, page III-4)

Data Used to Assess Water

Quality:

Five of 14 total samples collected by CCAMP staff exceeded the water

quality objective (CCAMP, 2004; SWAMP, 2004).

Spatial Representation: Samples were collected at site 309ALD by CCAMP staff. This water body

is located in the Salinas hydrologic unit, Chualar hydrologic subarea. The site is located at Salinas Reclamation Canal at Boranda Road (309ALD).

Temporal Representation: Samples were collected from February 1999 to February 2000.

Data Quality Assessment: CCAMP, SWAMP QAPP used to evaluate.

Water Segment: Salinas River (lower, estuary to near Gonzales Rd crossing, watersheds

30910 and 30920)

**Pollutant:** Nitrate as Nitrate (NO3)

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 a single line of

evidence is necessary to assess listing status.

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

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. Seventeen of 47 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 a pollutant contributes to or causes the problem.

#### Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: MU - Municipal & Domestic

Matrix: Water

Water Quality Objective/ Water Quality Criterion: Waters shall not contain concentrations of chemical constituents in excess of the limits specified in California Code of Regulations, Title 22, Article 4, Chapter 15, Section 64435, Tables 2 and 3 as listed in Table 3-2 (Region 3 Basin Plan, p III-3; In Table 3-2, the MCL for Nitrate (as

NO3) in Domestic or Municipal Supply is 45 mg/L).

Data Used to Assess Water

Quality:

Seventeen out of 47 samples exceeded the water quality objective for nitrate (as NO3) for municipal and domestic supply (CCAMP, 2004;

SWAMP, 2004).

Spatial Representation: Samples were collected from two sites. Exceedances were detected in

samples collected from both sites.

Temporal Representation: Samples were collected from February 1999 through March 2003.

Environmental Conditions: This water body is already listed for nutrients, but not for nitrate

specifically.

The water body is located in the Salinas hydrologic unit, and Lower Salinas Valley hydrologic area. The sampling sites are located at Salinas

River at Davis Road (309DAV), and Salinas River at Highway 1

(309SBR).

Data Quality Assessment: CCAMP, SWAMP QAPP.

Water Segment: Salinas River (lower, estuary to near Gonzales Rd crossing, watersheds

30910 and 30920)

**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. It is recommended that this new pollutant listing

replace the current pesticides listing for this water body.

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 NAS Guideline 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: Central Coast RWQCB Basin Plan: All waters shall be maintained free of

toxic substances in concentrations that are toxic to, or produce

detrimental physiological responses in human, plant, animal, or aquatic

life.

Evaluation Guideline: 100 ng/g - NAS Guideline (whole fish) (NAS, 1972).

Data Used to Assess Water

Quality:

Two out of 2 samples exceeded (TSMP, 2002). One whole fish composite sample of hitch and of sucker was collected. Hitch was

collected in 1992 and suckers were collected in 1998. The guideline was

exceeded in both samples.

Spatial Representation: Two stations were sampled: about 1/2 mile downstream of the Blanco

Drain discharge to the Salinas River and at the Davis Road crossing.

Temporal Representation: Samples were collected in 1992 and 1998.

Data Quality Assessment:

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

and Game.

Water Segment: San Antonio Creek (San Antonio Watershed, Rancho del las Flores Bridge at

Hwy 135 to downstream at Railroad Bridge)

**Pollutant:** Ammonia as Nitrogen

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 a single line of

evidence is necessary to assess listing status.

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

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 of 52 samples exceeded the ammonia 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 a pollutant contributes to or causes the problem.

#### Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: CO - Cold Freshwater Habitat, MI - Fish Migration, RA - Rare &

Endangered Species, SP - Fish Spawning, WA - Warm Freshwater

Habitat, WI - Wildlife Habitat

Matrix: Water

Water Quality Objective/ Water Quality Criterion:

The discharge of wastes shall not cause concentrations of unionized ammonia (NH3) to exceed 0.025 mg/L (as N) in receiving waters (Region 3 Basin Plan, Section II A 2. Objectives for All Inland Surface Waters

3 Basin Plan, Section II.A.2. Objectives for All Inland Surface Waters, Enclosed Bays, and Estuaries, II.A.2.a. General Objectives, page III-4)

Data Used to Assess Water

Quality:

Seven out of 52 samples exceeded the general water quality objective

(CCAMP, 2004; SWAMP, 2004).

Spatial Representation: Samples were collected from four sites. Exceedances were detected in

samples collected from one (site #313SAI) of the four sites.

Temporal Representation: Samples were collected from January 2001 to March 2003.

Environmental Conditions: The water body is located in the San Antonio hydrologic unit, San

Antonio hydrologic subarea. Monitoring sites are located at San Antonio Creek at Rancho de las Flores Bridge and Highway 135 (313SAB), San Antonio Creek at Railroad Bridge, upstream of lagoon (313SAC), San Antonio Creek at San Antonio Road East (313SAE), and San Antonio

Creek at San Antonio Road West (313SAI).

Data Quality Assessment: CCAMP, SWAMP QAPP.

Water Segment: San Antonio Creek (San Antonio Watershed, Rancho del las Flores Bridge at

Hwy 135 to downstream at Railroad Bridge)

**Pollutant:** Nitrogen, Nitrite

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 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. Five 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. Five of 52 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 a

pollutant contributes to or causes the problem.

#### Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: MU - Municipal & Domestic

Matrix: Water

Water Quality Objective/ Water Quality Criterion: Drinking Water MCL for nitrite = 1 mg/L (Title 22 Table 64431-A Primary

(inorganics) 64444A (organics)).

Data Used to Assess Water

Quality:

Five out of 52 samples exceeded the general water quality objective

(CCAMP, 2004; SWAMP, 2004).

Spatial Representation: Samples were collected from four sites. Exceedances were detected in

samples collected from one (site #313SAI) of the four sites.

Temporal Representation: Samples were collected from January 2001 to March 2003.

Environmental Conditions: The water body is located in the San Antonio hydrologic unit, San

Antonio hydrologic subarea. Monitoring sites are located at San Antonio Creek at Rancho de las Flores Bridge and Highway 135 (313SAB), San Antonio Creek at Railroad Bridge, upstream of lagoon (313SAC), San Antonio Creek at San Antonio Road East (313SAE), and San Antonio Creek at San Antonio Road West (313SAI).

Data Quality Assessment:

CCAMP, SWAMP QAPP.

San Diego Creek **Water Segment:** 

Pollutant: Toxaphene

Decision: List

This pollutant is being considered for placement on the section 303(d) list Weight of Evidence:

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 100 ng/g NAS Guideline for the protection of aquatic life from bioaccumulation of toxic substances. 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. Nine of 25 samples exceeded the NAS guideline for Toxaphene 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/ Santa Ana River Basin RWQCB Basin Plan: Toxic substances shall not Water Quality Criterion:

be discharged at levels that will bioaccumulate in aquatic resources to

levels which are harmful to human health.

Evaluation Guideline: 100 ng/g [NAS Guideline (whole fish)] (NAS, 1972). Data Used to Assess Water

Quality:

Nine out of 25 samples exceeded (TSMP, 2002). A total of 25 whole fish composite samples were collected: 19 red shiner, 4 fathead minnow, and 2 California killifish. Red shiner were collected from 1992-2001. Fathead minnow were collected in 2001-02. California killifish were collected in 1993. The guideline was exceeded in red shiner from 1992 through 1997.

Samples from 1998-2002 did not exceed the guideline.

Spatial Representation: Three stations were sampled: in the riffle 150 yards upstream from the

confluence of San Diego Creek and Peters Canyon Creek (Barranca Parkway), upstream of Michelson Drive, and in small ponds adjacent to

the Upper Newport Bay Ecological Reserve.

Temporal Representation: Samples were collected from 1992-2002.

Data Quality Assessment: Environmental Chemistry Quality Assurance and Data Report for the

Toxic Substances Monitoring Program, 1996-2000. Department of Fish and Game. Environmental Chemistry Quality Assurance and Data Report for the Toxic Substances Monitoring Program, 2001-2002. Department of

Fish and Game.

Water Segment: San Luis Obispo Creek

**Pollutant:** Nitrate as Nitrate (NO3)

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 a single line of

evidence is necessary to assess listing status.

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

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. Thirty-five of 66 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 a

pollutant contributes to or causes the problem.

#### Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: MU - Municipal & Domestic

Matrix: Water

Water Quality Objective/ Waters shall not contain concentrations of chemical constituents in excess of the limits specified in California Code of Regulations, Title

excess of the limits specified in California Code of Regulations, Title 22, Article 4, Chapter 15, Section 64435, Tables 2 and 3 as listed in Table 3-2 (Region 3 Basin Plan, p III-3; In Table 3-2, the MCL for Nitrate (as

NO3) in Domestic or Municipal Supply is 45 mg/L).

Data Used to Assess Water

Quality:

Thirty-five out of 66 samples exceeded the water quality objective for nitrate (as NO3) for municipal and domestic supply (CCAMP, 2004:

SWAMP, 2004).

Spatial Representation: Samples were collected from four sites. Exceedances were detected in

samples collected from two of the four sites (310SLB, 310SLV).

Temporal Representation: Samples were collected from April 2001 through March 2003.

Environmental Conditions: Water body is located in Estero Bay Hydrologic Unit, Point Buchon

hydrologic area, San Luis Obispo Creek Hydrologic Subarea. The monitoring sites are located at San Luis Obispo Creek at San Luis Bay Drive (310SLB), San Luis Obispo Creek at Cuesta Park (310SLC), San Luis Obispo Creek at Mission Plaza (310SLM), San Luis Obispo Creek at

Los Osos Valley Road (310SLV).

The Basin Plan differentiates beneficial uses for this water body depending on whether it is above or below W. Marsh St. Two of the sites are located above W. Marsh St (310SLM and 310SLC) and two are located below W. Marsh St. (310SLV and 310SLB). The sites with

exceedances are located below W. Marsh St.

Data Quality Assessment: CCAMP, SWAMP QAPP.

Water Segment: San Vicente Creek

**Pollutant:** Sedimentation/Siltation

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under sections 2.1, 3.6, 3.7 and 3.10 of the Listing Policy. Under section 3.6 a

single line of evidence is necessary to assess listing status.

Several lines of evidence are available in the administrative record to assess this pollutant. Numeric data as well as information on habitat conditions in this water body have been assessed. Based on section 3.1 the site exceeds the

drinking water 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 category.

This conclusion is based on the staff findings that:

1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.

2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.

3. Twenty two of 91 measurements were in exceedance of the Title 22 Secondary MCL criterion for turbidity, and these exceed 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-Water

Beneficial Use: MU - Municipal & Domestic

Matrix: Water

Water Quality Objective/ Water Quality Criterion: Title 22 Secondary MCL = 5 Units

Data Used to Assess Water

Quality:

The Davenport Sanitation District (DSD), which withdraws water from San Vicente Creek to serve the town of Davenport (adjacent to San Vicente Creek) has been unable to produce potable drinking water during periods of heavy rainfall due to high levels of turbidity. Turbidity levels at the influent were measured for 31 days in December 2001, 30 days in

January 2002, and 30 days in December 2002 by the County of Santa Cruz Water and Wastewater Division at the Davenport Water influent. Twenty-two of 91 measurements were in exceedance of the criterion

(Frediani, J. 2004).

Samples were collected in San Vicente Creek at the Davenport water Spatial Representation:

treatment plant intake point.

Samples were collected daily in December 2001, January 2002, and Temporal Representation:

December 2002. Other data have been collected, but were available at

time of data solicitation.

Environmental Conditions: Records state that standards are exceeded "during periods of heavy

rainfall".

The watershed is primarily privately owned and is managed for timber production, open pit mining, cattle grazing, urbanization and water

diversion.

QA/QC Equivalent: State Board was unable to obtain any QA/QC information.

#### Numeric Line of Evidence

#### Pollutant-Water

Beneficial Use:

AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO -Cold Freshwater Habitat, ES - Estuarine Habitat, FR - Freshwater Replenishment, GW - Groundwater Recharge, IN - Industrial Service Supply, MI - Fish Migration, MU - Municipal & Domestic, PR - Industrial Process Supply, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, SP - Fish Spawning, WI -

Wildlife Habitat

Water Matrix:

Water Quality Objective/ Water Quality Criterion:

WQO: The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.

Data Used to Assess Water Quality:

Site one yielded 37 steelhead ranging in total length from 62 millimeters to 187 millimeters and 1 coho salmon (81mm total length). Site two yielded 67 steelhead ranging in total length from 59 to 192 mm, 2 sculpin (125mm and 137mm) and 1 coho (90 mm). Site three yielded 32 steelhead ranging in total length 53 - 188 mm and 4 sculpin ranging in length from 110 mm - 169 mm. Site four yielded 12 steelhead ranging in total length from 55 - 157mm and 1 sculpin (117mm). Site five yielded 25 steelhead ranging in total length from 60 - 206mm, 1 coho salmon (85mm) and 1 Pacific giant salamander. Site six yielded 30 steelhead ranging in total length from 54 mm - 269 mm. Site seven yielded 25 steelhead ranging in total length from 57 - 242 mm 2 Pacific giant salamanders and a red-legged frog (CCRWQCB, 2004f).

Spatial Representation:

Seven sites were sampled. The first site was located at stream mile 0.16 and included 2 mid-channel pools and a run. The second site was located at stream mile 0.49 and included a lateral scout pool (root wad enhanced), a run and a riffle. The third site was located at stream mile 1.01 and included a lateral scour pool (root wad enhanced), a riffle and a mid-channel pool. The fourth site was located at stream mile 1.95 and included a riffle, a run, and a mid-channel pool. The fifth site was located at stream mile 2.6 and included 2 mid-channel pools and a riffle. Site six was located at stream mile 2.93 and included a mid-channel, a riffle, and a plunge. Site seven was located at stream mile 3.3 and included 2

plunge pools and a step run.

Temporal Representation:

Samples were collected on October 16, 17, and 21 of 1995.

QA/QC Equivalent:

The Habitat Inventory follows the methodology from the California Salmonid Stream Habitat Restoration Manual (Flosi and Reynolds, 1991 rev. 1994). The California Conservation Corps (CCC) Technical Advisors and Watershed Stewards Project/AmeriCorps (WSP/AmeriCorps) Members that conducted the inventory were trained in standardized habitat inventory methods by the California Department of Fish and Game (DFG). This inventory was conducted by a two-person team.

Fish were sampled by DFG using a Smith-Root Model 12 backpack electrofishing unit. Sampling techniques are discussed in the California

Salmonid Stream Habitat Restoration Manual.

Numeric Line of Evidence

Narrative Description Data

Beneficial Use:

AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO - Cold Freshwater Habitat, ES - Estuarine Habitat, FR - Freshwater Replenishment, GW - Groundwater Recharge, IN - Industrial Service Supply, MI - Fish Migration, MU - Municipal & Domestic, PR - Industrial Process Supply, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat

Matrix:

Water

Data Used to Assess Water Quality:

Flatwater habitat types comprised 76% of the total length of the survey, riffles comprised 8%, and pools comprised 15%. The pools are relatively shallow, with only 21 of the 70 (30%) pools having a maximum depth greater than 3 feet. Fifty-seven of the 70 pool tail-outs measured had embeddedness rating greater than 50% (CCRWQCB, 2004f).

The relatively large amount of cover is provided by primarily boulders in a habitat types. The mean percent canopy density for the stream was 87% which is considered adequate cover for juvenile coho salmon and steelhead. The percentage of right and left bank covered with vegetation was moderate at 73% and 76% respectively. Two gradients riffles measured had large cobble as the dominant substrate. Large cobble was also dominant in 4 of the 7 step runs measured.

Spatial Representation:

Seven sites were sampled. San Vicente Creek is a B3 channel type for the entire 3.40 miles (17,930 feet) of stream surveyed.

Temporal Representation:

The stream was surveyed on October 16, 17, and 21 of 1995.

QA/QC Equivalent:

Biological sampling during stream inventory was used to determine fish species composition and their distribution throughout the stream. In San Vicente fish presences was observed from the stream banks and seven

sites were sampled using a Smith-Root Model 12 Backpack electrofishing unit. The sampling techniques are discussed in the

California Salmonid Stream Habitat Restoration Manual.

Line of Evidence

Pollutant-Water

Beneficial Use

AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO - Cold Freshwater Habitat, ES - Estuarine Habitat, FR - Freshwater Replenishment, GW - Groundwater Recharge, IN - Industrial Service Supply, MI - Fish Migration, MU - Municipal & Domestic, PR - Industrial Process Supply, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat

Non-Numeric Objective:

WQO: The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.

Data Used to Assess Water Quality:

Stream Inventory Report by DFG - 1995-1996 (Frediani, J. 2004): - Over 81% of the pool tail crests surveyed had greater than 51%

embeddedness.

- 76% of the surveyed stream length was flat water (indicates lack of needed pools).

- The pools surveyed were relatively shallow 70% were less than 3 feet deep.

- LWD (Large Woody Debris) was lacking in nearly all habitats.

- Mean shelter rating for pools was low with a rating of 12. A pool shelter rating of approximately 100 is desirable.

-Threatened/endangered species in the creek (coho salmon, steelhead trout, California red-legged frog) are suffering from habitat degradation and associated decreased carrying capacity.

- Large cobble (dominant in 4 of 7 step runs measured) is considered unsuitable for spawning steelhead and coho salmon.

- The percentage of bank covered with vegetation was moderate at 73-76%.

Spatial Representation:

San Vicente Creek (304.11) was sampled. Biological sampling occurred at 7 sites and observations were made from the stream banks throughout the stream. The habitat was assessed throughout the stream with an inventory method that samples approximately 10% of the flatwater and riffle habitat.

Temporal Representation:

The San Vicente Creek Stream Inventory Report was conducted by DFG on 7/9/1996 - 7/14/1996. Fish presence was observed on Oct. 16, 17, 21, 1995.

Water Segment: Santa Maria River

**Pollutant:** Ammonia (Unionized) - Toxin

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 a single line of

evidence is necessary to assess listing status.

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

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification 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 59 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 a pollutant contributes to or causes the problem.

#### Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO -

Cold Freshwater Habitat, FR - Freshwater Replenishment, GW - Groundwater Recharge, IN - Industrial Service Supply, MI - Fish Migration, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA -

Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix: Water

Water Quality Objective/ Water Quality Criterion: The discharge of wastes shall not cause concentrations of unionized ammonia (NH3) to exceed 0.025 mg/L (as N) in receiving waters (Region 3 Basin Plan, Section II.A.2. Objectives for All Inland Surface Waters, Enclosed Bays, and Estuaries, II.A.2.a. General Objectives, page III-4)

Data Used to Assess Water

Quality:

Levels of unionized ammonia greater than the general numeric water quality objective of 0.025 mg/l. Five of 59 samples exceeded the water

quality objective (CCAMP, 2004, SWAMP, 2004).

Spatial Representation: Samples were collected from three sites. Exceedances were detected in

samples collected from two of the three sites.

Temporal Representation: Samples were collected from February 2000 to March 2003.

Environmental Conditions: Santa Maria River is located in the Santa Maria hydrologic unit,

Guadalupe Hydrologic subarea. Sites are located at Santa Maria River at Bull Canyon Road (312SBC), Santa Maria River at Estuary (312SMA),

and Santa Maria River at Highway 1 (312SMI).

Data Quality Assessment: CCAMP, SWAMP QAPP.

Water Segment: Santa Maria River

**Pollutant:** Chlorpyrifos

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under sections 2.1, 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.

Two 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 2 samples were in exceedance of the aquatic life criteria, 2 of 2 sediment bulk-phase chemical analyses showed elevated concentrations of chlorpyrifos, 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, 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-Water

Beneficial Use:

AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO -Cold Freshwater Habitat, FR - Freshwater Replenishment, GW -Groundwater Recharge, IN - Industrial Service Supply, MI - Fish Migration, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA -

Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix:

Water

Water Quality Objective/ Water Quality Criterion:

General WQOs: All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with the objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, toxicity bioassays of appropriate duration, or other appropriate methods.

No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life.

Evaluation Guideline:

CDFG Hazardous Assessment Criteria for Aquatic Life: 4-day average = 0.014 ppb, 1-hour day average = 0.025 ppb.

Data Used to Assess Water Quality:

Water was sampled at Orcutt Creek (ORC) and in the Santa Maria River (SMA) on two separate occasions (September 2002 and May 2003). Water was toxic at both stations in September 2002 and May 2003. Analysis of chlorpyrifos in water showed that on all occasions when water toxicity was observed, concentrations of chlorpyrifos exceeded the LC 50 for this pesticide for toxicity to Ceriodaphnia dubia (SWAMP, 2004). Toxicity Identification Evaluations of water samples from Orcutt Creek and the Santa Maria River showed toxicity to C. dubia was due to chlorpyrifos. At the station on the Santa Maria River. 2 of 2 samples were in exceedance of the aquatic life criteria.

Spatial Representation:

Lower Santa Maria River (Hydrologic Unit 31201) from its confluence with Orcutt Creek to the mouth of the Santa Maria River estuary where it enters the Pacific Ocean.

Temporal Representation:

Samples were collected on 9/3/2002 and 5/28/2003

QA/QC Equivalent:

Quality assurance and quality control procedures were identical to those used in the Surface Water Ambient Monitoring Program (SWAMP). The toxicity and chemistry laboratories participating in this study are the same labs responsible for the SWAMP QAPP, and are the labs participating in the SWAMP program.

Numeric Line of Evidence

Pollutant-Sediment

Beneficial Use:

AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO -Cold Freshwater Habitat, FR - Freshwater Replenishment, GW -Groundwater Recharge, IN - Industrial Service Supply, MI - Fish

Migration, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix: Sediment

Water Quality Objective/ Water Quality Criterion: General WQOs:

All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with the objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, toxicity bioassays of appropriate duration, or other appropriate methods.

No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life.

Data Used to Assess Water Quality: Sediment was sampled at Orcutt Creek (ORC) and in the Santa Maria River (SMA) in 2002 and 2003. Sediment was toxic at both stations in both samples. Analysis of chlorpyrifos in sediment porewater showed that on all occasions when water toxicity was observed, concentrations of chlorpyrifos exceeded the LC50 for this pesticide to the amphipod Hyalella azteca (SWAMP, 2004). Toxicity Identification Evaluations of sediment samples from Orcutt Creek and the Santa Maria River showed toxicity was due to a combination of chlorpyrifos and other pesticides, likely pyrethroid pesticides (refer to attached excel spreadsheet file). Sediment bulk-phase chemical analyses showed elevated concentrations of chlorpyrifos.

or chlorpyfilo

Spatial Representation: Lower Santa Maria River (Hydrologic Unit 31201) from its confluence with

Orcutt Creek to the mouth of the Santa Maria River estuary where it

enters the Pacific Ocean.

Temporal Representation: Samples were collected on 10/22/2003.

QA/QC Equivalent: Quality assurance and quality control procedures for the primary study

were identical to those used in the Surface Water Ambient Monitoring Program (SWAMP). The toxicity and chemistry laboratories participating in this study are the same labs responsible for the SWAMP QAPP, and

are the labs participating in the SWAMP program.

Water Segment: Santa Maria River

**Pollutant:** DDT

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under sections 2.1, 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.

Eight lines of evidence are available in the administrative record to assess this pollutant. Based on section 3.6 the site has significant water toxicity and 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 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 CTR criteria 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 2 total DDTs and 4,4'-DDT samples were below freshwater acute criteria, 1 of 2 measurements for 4,4'-DDD exceeded the human health criteria for water consumption, and 2 of 2 measurements for 4,4'-DDE exceeded the human health criteria for water consumption. These exceed the allowable frequency listed in Table 3.1 of the Listing Policy.
- 5. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should 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-Water

Beneficial Use:

AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO -Cold Freshwater Habitat, FR - Freshwater Replenishment, GW -Groundwater Recharge, IN - Industrial Service Supply, MI - Fish Migration, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA -

Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix:

Water

Water Quality Objective/ Water Quality Criterion:

All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with the objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, toxicity bioassays of appropriate duration, or other appropriate methods.

No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life.

CTR criteria for:

Freshwater acute = 1.1 ppb for 4,4'-DDT and DDTs (total). Human Health (water consumption) = 0.00059 ppb for 4,4'-DDT. Human Health (water consumption) = 0.0059 ppb for DDTs (total).

Data Used to Assess Water

Quality:

Samples were collected on Orcutt Creek on two occasions: in 2002 and 2003. Both measurements for total DDTs and 4,4'-DDT were below freshwater acute criteria, however both measurements exceeded human health criteria for water consumption for both 4,4'-DDT and DDTs (total) (SWAMP, 2004).

Spatial Representation:

Lower Santa Maria River (Hydrologic Unit 31201) from its confluence with Orcutt Creek to the mouth of the Santa Maria River estuary where it enters the Pacific Ocean.

Temporal Representation:

Samples were collected on 9/3/2002 and 5/28/2003.

QA/QC Equivalent:

Quality assurance and quality control procedures for chemistry, toxicity testing and TIEs for the primary study were identical to those used in the Surface Water Ambient Monitoring Program (SWAMP). The toxicity and chemistry laboratories participating in this study are the same labs responsible for the SWAMP QAPP, and are the labs participating in the SWAMP program.

Numeric Line of Evidence

Pollutant-Sediment

Beneficial Use:

AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO -Cold Freshwater Habitat, FR - Freshwater Replenishment, GW -Groundwater Recharge, IN - Industrial Service Supply, MI - Fish Migration, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA -Warm Freshwater Habitat. WI - Wildlife Habitat

Matrix: Sediment

Water Quality Objective/ General WQOs: Water Quality Criterion: All waters shall be

All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with the objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, toxicity bioassays of appropriate duration, or other appropriate methods.

No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life.

Freshwater Sediment Criteria (Policy):

DDT(sum) = 62.9 ppbDDTs(total) = 572

Data Used to Assess Water Quality:

Sediment was sampled at Orcutt Creek (ORC) and in the Santa Maria River (SMA) on two separate occasions (June 2002 and May 2003). Sediment was toxic at both stations in both samples (SWAMP, 2004). Sediment bulk-phase chemical analyses showed elevated concentrations of DDTs. In the Santa Maria River sample, the sediment criterion for DDT (sum) was exceeded (62.9 ppb) in 2002, but not in 2003. The DDTs (total) criterion (572 ppb) was not exceeded on either occasion.

Spatial Representation: Lower Santa Maria River (Hydrologic Unit 31201) from its confluence with

Orcutt Creek to the mouth of the Santa Maria River estuary where it

enters the Pacific Ocean.

Temporal Representation: Samples were collected on 6/28/2002 and 10/22/2003.

QA/QC Equivalent: Quality assurance and quality control procedures for chemistry, toxicity

testing and TIEs for the primary study were identical to those used in the Surface Water Ambient Monitoring Program (SWAMP). The toxicity and chemistry laboratories participating in this study are the same labs responsible for the SWAMP QAPP, and are the labs participating in the

SWAMP program.

Numeric Line of Evidence Pollutant-Tissue

Beneficial Use: AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO -

Cold Freshwater Habitat, FR - Freshwater Replenishment, GW - Groundwater Recharge, IN - Industrial Service Supply, MI - Fish Migration, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA -

Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix: Tissue

Water Quality Objective/ Central Coast RWQCB Basin Plan: No individual pesticide or combination of pesticides shall reach concentrations that adversariance and the combination of pesticides are combination of pesticides and the combination of pesticides are combination of pesticides and the combination of pesticides are combination of pesticides and the combination of pesticides are combination of pesticides and the combination of pesticides are combination of pesticides and the combination of pesticides are combination of pesticides and the combination of pesticides are combination of pesticides are combination of pesticides and the combination of pesticides are combination of pesticides and the combination of pesticides are combinat

combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations

found in bottom sediments or aquatic life.

Evaluation Guideline: 1000 ng/g – NAS Guideline (whole fish).

Data Used to Assess Water Two out of 2 samples exceeded (TSMP, 2002). A total of 2 whole fish

Quality: composite samples of starry flounder and threespine stickleback were

collected. The flounder sample was collected in 1992 and the stickleback

in 1999. The guideline was exceeded in both samples.

Spatial Representation: One station located just above the beach area at the mouth of the river.

Temporal Representation: Samples were collected in 1992 and 1999.

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

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

and Game.

#### Numeric Line of Evidence

Pollutant-Water

Beneficial Use:

AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO - Cold Freshwater Habitat, FR - Freshwater Replenishment, GW - Groundwater Recharge, IN - Industrial Service Supply, MI - Fish Migration, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA -

Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix:

Water

Water Quality Objective/ Water Quality Criterion: All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with the objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, toxicity bioassays of appropriate duration, or other appropriate methods.

No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life.

CTR criteria for:

Human Health (water consumption) = 0.00083 ppb for 4,4'-DDD.

Data Used to Assess Water

Quality:

Samples were collected on the Santa Maria River on two occasions: in 2002 and 2003. One of 2 measurements for 4,4'-DDD exceeded the human health criteria for water consumption (0.00083 ppb) (SWAMP,

2004).

Spatial Representation: Lower Santa Maria River (Hydrologic Unit 31201) from its confluence with

Orcutt Creek to the mouth of the Santa Maria River estuary where it

enters the Pacific Ocean.

Temporal Representation: Samples were collected on 9/3/2002 and 5/28/2003.

QA/QC Equivalent: Quality assurance and quality control procedures for chemistry, toxicity

testing and TIEs for the primary study were identical to those used in the Surface Water Ambient Monitoring Program (SWAMP). The toxicity and chemistry laboratories participating in this study are the same labs responsible for the SWAMP QAPP, and are the labs participating in the

SWAMP program.

Numeric Line of Evidence

Pollutant-Sediment

Beneficial Use:

AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO -Cold Freshwater Habitat, FR - Freshwater Replenishment, GW -Groundwater Recharge, IN - Industrial Service Supply, MI - Fish Migration, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA -

Warm Freshwater Habitat. WI - Wildlife Habitat

Matrix:

Sediment

Water Quality Objective/ Water Quality Criterion:

General WQOs:

All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with the objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, toxicity bioassays of appropriate duration, or other appropriate methods.

No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life.

Freshwater Sediment Criteria: DDD(sum) = 28.0 ppb.

Data Used to Assess Water Quality:

Sediment was sampled at Orcutt Creek (ORC) and in the Santa Maria River (SMA) in 2002 and 2003 (SWAMP, 2004). Sediment was toxic at both stations in both samples. Sediment bulk-phase chemical analyses showed elevated concentrations of DDTs. In the Santa Maria River sample, the sediment criterion for DDD (sum) was not exceeded on either occasion.

Spatial Representation:

Lower Santa Maria River (Hydrologic Unit 31201) from its confluence with Orcutt Creek to the mouth of the Santa Maria River estuary where it enters the Pacific Ocean.

Temporal Representation:

Samples were collected on 6/28/2002 and 10/22/2003.

QA/QC Equivalent:

Quality assurance and quality control procedures for chemistry, toxicity testing and TIEs for the primary study were identical to those used in the Surface Water Ambient Monitoring Program (SWAMP). The toxicity and chemistry laboratories participating in this study are the same labs responsible for the SWAMP QAPP, and are the labs participating in the SWAMP program.

Numeric Line of Evidence

Pollutant-Water

Beneficial Use:

AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO -Cold Freshwater Habitat, FR - Freshwater Replenishment, GW -Groundwater Recharge, IN - Industrial Service Supply, MI - Fish Migration, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA -

Warm Freshwater Habitat. WI - Wildlife Habitat

Matrix:

Water

Water Quality Objective/ Water Quality Criterion: All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with the objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, toxicity bioassays of appropriate duration, or other appropriate methods.

No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life.

CTR criteria for:

Human Health (water consumption) = 0.00059 ppb for 4,4'-DDE.

Data Used to Assess Water

Quality:

Samples were collected on the Santa Maria River on two occasions: in 2002 and 2003 (SWAMP, 2004). Two of 2 measurements for 4,4'-DDE exceeded the human health criteria for water consumption (0.00059 ppb).

Spatial Representation:

Lower Santa Maria River (Hydrologic Unit 31201) from its confluence with Orcutt Creek to the mouth of the Santa Maria River estuary where it enters the Pacific Ocean.

Temporal Representation:

Samples were collected on 9/3/2002 and 5/28/2003.

QA/QC Equivalent:

Quality assurance and quality control procedures for chemistry, toxicity testing and TIEs for the primary study were identical to those used in the Surface Water Ambient Monitoring Program (SWAMP). The toxicity and chemistry laboratories participating in this study are the same labs responsible for the SWAMP QAPP, and are the labs participating in the SWAMP program.

#### Numeric Line of Evidence

Pollutant-Sediment

Beneficial Use:

AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO - Cold Freshwater Habitat, FR - Freshwater Replenishment, GW - Groundwater Recharge, IN - Industrial Service Supply, MI - Fish Migration, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix:

Sediment

Water Quality Objective/ Water Quality Criterion: General WQOs:

All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with the objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, toxicity bioassays of appropriate duration, or other appropriate methods.

No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life.

Freshwater Sediment Criteria (Policy):

DDE(sum) = 31.3 ppb

Data Used to Assess Water

Quality:

Sediment was sampled at Orcutt Creek (ORC) and in the Santa Maria River (SMA) in 2002 and 2003 (SWAMP, 2004). Sediment was toxic at both stations in both samples. Sediment bulk-phase chemical analyses showed elevated concentrations of DDTs. In the Santa Maria River samples, the sediment criterion for DDE (sum) was exceeded in 2003, but not in 2002.

Spatial Representation:

Lower Santa Maria River (Hydrologic Unit 31201) from its confluence with Orcutt Creek to the mouth of the Santa Maria River estuary where it enters the Pacific Ocean.

Temporal Representation:

Samples were collected on 6/28/2002 and 10/22/2003.

QA/QC Equivalent:

Quality assurance and quality control procedures for chemistry, toxicity testing and TIEs for the primary study were identical to those used in the Surface Water Ambient Monitoring Program (SWAMP). The toxicity and chemistry laboratories participating in this study are the same labs responsible for the SWAMP QAPP, and are the labs participating in the SWAMP program.

#### Line of Evidence

#### Pollutant-Tissue

Beneficial Use

AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO - Cold Freshwater Habitat, FR - Freshwater Replenishment, GW - Groundwater Recharge, IN - Industrial Service Supply, MI - Fish Migration, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Non-Numeric Objective:

All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with the objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, toxicity bioassays of appropriate duration, or other appropriate methods.

No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life.

Data Used to Assess Water Quality:

Concentrations of pesticides were measured in sand crabs (Emerita analoga) collected at the mouth of the Santa Maria River estuary in August 2000 (Dugan et al. 2004). These samples were collected as part of a larger coastline survey in Region 3 that collected sand crabs from a number of beaches. The range of sampling extended from Carpinteria Beach in Ventura County at the southern end of Region 3 to Scott Creek in Santa Cruz County at the northern end of Region 3. Concentrations of DDT in sand crab tissues at the mouth of the Santa Maria River were higher than any other site measured in Region 3, and were as high as 556 ng/g dry wt in samples nearest the Santa Maria River estuary. Mean concentrations of total DDT in sand crabs from the Santa Maria River area were 350 ng/g (dry wt). Results of a gradient study of tissues loads in sand crabs collected north and south of the river mouth confirmed that the Santa Maria River was the source of DDT in sand crab tissues.

These results are consistent with previous BPTCP studies that found DDT in sediments from the Santa Maria River estuary were among the highest measured in the state (Total DDT = 679.5  $\mu$ g/kg dry wt., Downing et al. 1998 Section VII). High total DDT in the sediment sample from this station corresponded with high sediment toxicity to amphipods (amphipod Eohaustorius estuarius mortality = 98%; Downing et al. 1998, Section II).

Spatial Representation:

Lower Santa Maria River (Hydrologic Unit 31201) from its confluence with Orcutt Creek to the mouth of the Santa Maria River estuary where it enters the Pacific Ocean. Samples were collected at 4 sites at the mouth of the Santa Maria River: 150S, 300S, 450S, and 600S (river).

Temporal Representation:

Samples were collected during May and August 2000 and February 2001.

Water Segment: Santa Maria River

**Pollutant:** Dieldrin

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 a single line of

evidence can be used to assess listing status.

Three lines of evidence are available in the administrative record to assess this pollutant. Based on section 3.1 There are sufficient number of samples exceeding the CTR Human Health Criteria for consumption of water and organisms. The site does not show significant sediment toxicity and the benthic community is not impacted.

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

This conclusion is based on the staff findings that:

- 1. There is a water column guideline available 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 2 samples were in exceedance of the CTR Human Health water and organism consumption criterion and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy. However, the sediment samples were below the detection limit.
- 5. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

## SWRCB Staff Recommendation:

After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should be placed on the section 303(d) list because applicable water quality standards for the pollutant are exceeded.

#### Lines of Evidence:

Numeric Line of Evidence

Pollutant-Water

Beneficial Use:

AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO - Cold Freshwater Habitat, FR - Freshwater Replenishment, GW - Groundwater Recharge, IN - Industrial Service Supply, MI - Fish Migration, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA -

Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix:

Water

Water Quality Objective/ Water Quality Criterion: General WQOs:

All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with the objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, toxicity bioassays of

appropriate duration, or other appropriate methods.

No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or

aquatic life.

CTR Human Health Criterion for consumption of Water & Organisms =

0.00014 ppb.

Data Used to Assess Water

Quality:

Samples were collected on the Lower Santa Maria River in September 2002 and May 2003 (SWAMP, 2004). Two of 2 samples were in exceedance of the criterion for water consumption, however both samples were below the freshwater acute criterion (0.24 ppb).

Spatial Representation:

Lower Santa Maria River (Hydrologic Unit 31201) from its confluence with Orcutt Creek to the mouth of the Santa Maria River estuary where it

enters the Pacific Ocean.

Temporal Representation:

Samples were collected on 9/3/2002 and 5/28/2003.

QA/QC Equivalent:

Quality assurance and quality control procedures for chemistry, toxicity testing and TIEs for the primary study were identical to those used in the Surface Water Ambient Monitoring Program (SWAMP). The toxicity and chemistry laboratories participating in this study are the same labs responsible for the SWAMP QAPP, and are the labs participating in the

SWAMP program.

Numeric Line of Evidence

Pollutant-Sediment

Beneficial Use:

AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO - Cold Freshwater Habitat, FR - Freshwater Replenishment, GW - Groundwater Recharge, IN - Industrial Service Supply, MI - Fish Migration, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA -

Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix:

Sediment

Water Quality Objective/ Water Quality Criterion:

General WQOs:

All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with the objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, toxicity bioassays of appropriate duration, or other appropriate methods.

No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life.

Freshwater Sediment criterion: max Dieldrin = 6.18 ppm

Data Used to Assess Water

Quality:

Sediment was sampled in the Santa Maria River (SMA) in October 2003 and the dieldrin level was below the detection limit (SWAMP, 2004).

Lower Santa Maria River (Hydrologic Unit 31201) from its confluence with Spatial Representation:

Orcutt Creek to the mouth of the Santa Maria River estuary where it

enters the Pacific Ocean.

Temporal Representation:

QA/QC Equivalent:

One sample was collected on 10/22/2003.

Quality assurance and quality control procedures for chemistry, toxicity testing and TIEs for the primary study were identical to those used in the Surface Water Ambient Monitoring Program (SWAMP). The toxicity and chemistry laboratories participating in this study are the same labs responsible for the SWAMP QAPP, and are the labs participating in the

SWAMP program.

## Line of Evidence

## Pollutant-Tissue

Beneficial Use

AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO -Cold Freshwater Habitat, FR - Freshwater Replenishment, GW -Groundwater Recharge, IN - Industrial Service Supply, MI - Fish Migration, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WA -Warm Freshwater Habitat, WI - Wildlife Habitat

Non-Numeric Objective:

All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with the objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, toxicity bioassays of appropriate duration, or other appropriate methods.

No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life.

Evaluation Guideline:

NAS Tissue guideline = 100 ppb (NAS, 1972).

Data Used to Assess Water

Quality:

Concentrations of pesticides were measured in sand crabs (Emerita analoga) collected at the mouth of the Santa Maria River estuary in August 2000 (Dugan et al. 2004). These samples were collected as part of a larger coastline survey in Region 3 that collected sand crabs from a number of beaches. The range of sampling extended from Carpinteria Beach in Ventura County at the southern end of Region 3 to Scott Creek

in Santa Cruz County at the northern end of Region 3.

Samples were all below the numeric criterion.

Spatial Representation: Lower Santa Maria River (Hydrologic Unit 31201) from its confluence with

Orcutt Creek to the mouth of the Santa Maria River estuary where it enters the Pacific Ocean. Samples were collected at 4 sites at the mouth

of the Santa Maria River: 150S, 300S, 450S, and 600S (river).

Temporal Representation: Samples were collected during May and August 2000 and February

2001.

Santa Maria River **Water Segment:** 

Pollutant: **Endrin** Decision: List

This pollutant is being considered for placement on the section 303(d) list Weight of Evidence:

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 out of 2 samples exceeded the NAS guideline 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:

Pollutant-Tissue Numeric Line of Evidence

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

Matrix: Tissue

Water Quality Objective/ Central Coast RWQCB Basin Plan: No individual pesticide or Water Quality Criterion:

combination of pesticides shall reach concentrations that adversely affect

beneficial uses. There shall be no increase in pesticide concentrations

found in bottom sediments or aquatic life.

Evaluation Guideline: 100 ng/g NAS guideline (whole fish) (NAS, 1972).

Data Used to Assess Water

Quality:

Two out of 2 samples exceeded (TSMP, 2002). A total of 2 whole fish composite samples of starry flounder and threespine stickleback and were collected. The flounder was collected in 1992 and the stickleback in

1999. The guideline was exceeded in both samples.

Spatial Representation: One station located just above the beach area at the mouth of the river. Temporal Representation: Samples were collected in 1992 and 1999.

Data Quality Assessment:

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

and Game

Water Segment: Santa Ynez River (below city of Lompoc to Ocean)

**Pollutant:** Nitrate as Nitrate (NO3)

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under sections 3.5, and 3.6 of the Listing Policy. Under section 3.6 a single

line of evidence is necessary to assess listing status.

Currently, Santa Ynez River (below the City of Lompoc to Ocean) is listed for nutrients. It is not possible, in a general listing, to determine which specific pollutant is causing or contributing to water quality impacts. There is sufficient justification for removing the general listings for nutrients from the 303(d) list and replace these general listings with the specific pollutants when found to be exceeding.

One line of evidence is available in the administrative record to assess this pollutant. Based on section 3.5 and 3.6, the site does have exceedances. Water toxicity has been documented in this water body. Fifteen of 84 samples exceeded 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. Fifteen of the 84 water samples exceeded the water quality guideline and these exceed 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 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-Water

Beneficial Use: MU - Municipal & Domestic

Matrix: Water

Water Quality Objective/ Water Quality Criterion: Waters shall not contain concentrations of chemical constituents in excess of the limits specified in California Code of Regulations, Title 22, Article 4, Chapter 15, Section 64435, Tables 2 and 3 as listed in Table 3-2 (Region 3 Basin Plan, p III-3; In Table 3-2, the MCL listed for Nitrate

(as NO3) in Domestic or Municipal Supply is 45 mg/L).

Data Used to Assess Water

Quality:

Fifteen of 40 samples collected at both sampling sites exceeded the water quality objective for nitrate (as NO3) for municipal and domestic supply (CCAMP, 2004; SWAMP, 2004). Forty-four samples were collected at 3 sites located between the upper reach of the City of Lompoc and the Highway 154 crossing below the Lake Cachuma dam. There were no exceedances out of these 44 samples at these 3 sites.

Spatial Representation: Samples were collected from five sites. Exceedances were detected in

samples collected from two of the five sites (314SYF, 314SYN). These two sites showing exceedances also have extremely high orthophosphate levels. Upstream sites did not have exceedances. The sampling area with exceedances was below the City of Lompoc to the

ocean.

Temporal Representation: Samples were collected from January 2001 through March 2003.

Environmental Conditions: The water body is located in the Santa Ynez hydrologic unit, Lompoc

hydrologic area, Lompoc hydrologic subarea. The sites are located at Santa Ynez River at Highway 101 (314SYI), Santa Ynez River at Paradise Road (314SYP), Santa Ynez River downstream of Lake

Cachuma (314SYC), Santa Ynez River downstream Lompoc at Floordale

(314SYF), Santa Ynez River upstream Lompoc at Highway 246

(314SYL).

Data Quality Assessment: CCAMP, SWAMP QAPP.

Shuman Canyon Creek **Water Segment:** 

Pollutant: Sedimentation/Siltation

Decision: List

Weight of Evidence: The data and information in the administrative record supports this change in

the original listing recommendation. There was a misunderstanding of the applicable water body recommended for listing by staff. This change will

correct that mistake.

The correction is requested for San Antonio Creek (South Coast Watershed) Sedimentation/Siltation. This water body was incorrectly assigned to a sedimentation/siltation problem. The correct water bodies are Shuman Canvon Creek and Casmalia Canvon Creek. The 303(d) List Table should be revised to remove San Antonio Creek (South Coast Watershed) for Sedimentation/Siltation and add Casmalia Canyon Creek (4.5 miles) and Shuman Canyon Creek (3.0 miles) (313004) for Sedimentation/Siltation. The

original listing recommendation originated with Regional Board staff, however

there was a misunderstanding of the applicable water body recommended for listing by staff. This change will correct that mistake.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that a water body was incorrectly assigned to a sedimentation/siltation problem and that the listing should be revised with this water body and the

listing should be changed as presented.

#### Lines of Evidence:

Line of Evidence Pollutant-Water

Beneficial Use AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), ES -

Estuarine Habitat, FR - Freshwater Replenishment, MU - Municipal & Domestic. R1 - Water Contact Recreation. R2 - Non-Contact Recreation. SP - Fish Spawning, WA - Warm Freshwater Habitat, WI - Wildlife

Habitat

Information Used to Assess

Water Quality:

See file: "FS - Correction-San Antonio Creek.doc" for further information.

Data Used to Assess Water

Quality:

The correction is requested for San Antonio Creek (South Coast Watershed) Sedimentation/Siltation. This water body was incorrectly assigned to a sedimentation/siltation problem. The correct water bodies

are Shuman Canyon Creek and Casmalia Canyon Creek.

The 303(d) List Table should be revised to remove San Antonio Creek (South Coast Watershed) for Sedimentation/Siltation and add Casmalia Canyon Creek (4.5 miles) and Shuman Canyon Creek (3.0 miles)

(313004) for Sedimentation/Siltation.

The original listing recommendation originated with Regional Board staff,

however there was a misunderstanding of the applicable water body recommended for listing by staff. This change will correct that mistake.

Spatial Representation: 3.0 miles.

Temporal Representation: Correction Submittal on 6/14/2004.

Water Segment: Soda Lake

**Pollutant:** Ammonia (Unionized) - Toxin

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 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. Three 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. Three of 7 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 a

pollutant contributes to or causes the problem.

#### Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: CO - Cold Freshwater Habitat, MI - Fish Migration, RA - Rare &

Endangered Species, WA - Warm Freshwater Habitat

Matrix: Water

Water Quality Objective/ Water Quality Criterion: The discharge of wastes shall not cause concentrations of unionized ammonia (NH3) to exceed 0.025 mg/L (as N) in receiving waters (Region 3 Basin Plan, Section II.A.2. Objectives for All Inland Surface Waters, Enclosed Bays, and Estuaries, II.A.2.a. General Objectives, page III-4)

Data Used to Assess Water

Quality:

Three out of seven samples exceeded the general water quality objective

(CCAMP, 2004; SWAMP, 2004).

Spatial Representation: Samples were collected from two sites. Exceedances were detected in

samples collected from both sites.

Temporal Representation: Samples were collected from January 2000 to May 2000.

Environmental Conditions:

The water body is located in the Carrizo Plain hydrologic unit, Carrizo Plain hydrologic subarea. Sites are located at Soda Lake Northeast (311SLE) and Soda Lake Culverts at Seven Mile Road (311SLN).

CCAMP, SWAMP QAPP. Data Quality Assessment:

Water Segment: Tembladero Slough

**Pollutant:** Ammonia (Unionized) - Toxin

**Decision:** List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list

under section 3.1 of the Listing Policy. Under section 3.1 a single line of

evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this

pollutant. Six 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. Six of 40 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 a

pollutant contributes to or causes the problem.

#### Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: ES - Estuarine Habitat, RA - Rare & Endangered Species, SP - Fish

Spawning, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix: Water

Water Quality Objective/

Water Quality Criterion: ammonia (NH3) to exceed 0.025 mg/L (as N) in receiving waters (Region 3 Basin Plan, Section II.A.2. Objectives for All Inland Surface Waters,

3 Basin Plan, Section II.A.2. Objectives for All Inland Surface Waters, Enclosed Bays, and Estuaries, II.A.2.a. General Objectives, page III-4)

The discharge of wastes shall not cause concentrations of unionized

Data Used to Assess Water

Quality:

Six out of 40 samples exceeded the general water quality objective

(CCAMP, 2004; SWAMP, 2004).

Spatial Representation: Samples were collected from two sites. Exceedances were detected in

water samples collected from both sites.

Temporal Representation: Samples were collected from March 1999 to March 2003.

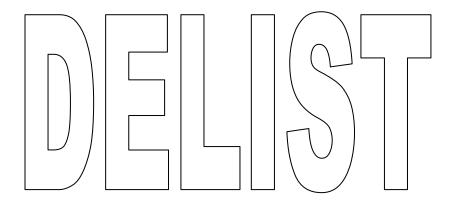
Environmental Conditions: Water body is located in the Salinas hydrologic unit, Lower Salinas

hydrologic subarea. The sites are located at Tembladero Slough at Monterey Dunes Way (309TDW) and Tembladero Slough at Preston

(309TEM).

Data Quality Assessment: CCAMP, SWAMP QAPP.

# Central Coast Region (3)



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

Water Segment: Blosser Channel

Pollutant: Fecal Coliform

**Decision:** Delist

Weight of Evidence:

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

One line of evidence is available in the administrative record to assess this pollutant. This data represents only the retention pond overflow as the up stream channel was dry most of the year. The original listing was faulty. Data were not representative of ambient water quality.

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 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. This data represents only the retention pond overflow as the up stream channel was dry most of the year. The original listing was faulty. Data were not representative of ambient water quality.
- 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 the original listing was faulty.

## Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: R1 - Water Contact Recreation

Matrix: Water

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

any 30-day period exceed 400/100 ml.

Data Used to Assess Water

Quality:

Five of 10 samples exceed the water quality objectives (CCAMP, 2004).

Spatial Representation: There was one s

There was one sampling site. This data represents only the retention pond overflow as the upstream channel was dry most of the year.

Temporal Representation: There were monthly sampling events. All 3 exceedances of the objective

were during summer months when flows were primarily from the retention basin overflow. Since 2002 a new housing development is being built at the site location and the retention basin has been drained (since 2004).

Data Quality Assessment: CCAMP

Water Segment: Carpinteria Marsh (El Estero Marsh)

Pollutant: Sedimentation/Siltation

**Decision:** Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list

under section 4 of the Listing Policy. The Policy calls for the delisting of waters if the decision is found to be based on faulty data and it is demonstrated that the listing would not have occurred in the absence of such faulty data. One line of evidence is available in the administrative record to assess this

pollutant.

The data cannot be found that was used to list this pollutant.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification for maintaining the listing for this

water segment-pollutant combination.

This conclusion is based on the staff findings that no data is available to assess the status of this water body for this pollutant. Pursuant to section 4.11

of the Listing Policy, no additional data and information are available indicating that standards are met.

indicating that standards are me

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 no data are available to support the listing.

**Lines of Evidence:** 

Line of Evidence Pollutant-Water

Beneficial Use BI - Preserva.of Bio.Hab.of Spec.Signif., ES - Estuarine Habitat, MI - Fish

Migration, SP - Fish Spawning, WA - Warm Freshwater Habitat

Information Used to Assess

Water Quality:

Carpinteria Marsh was originally listed on the section 303(d) list because Regional Board staff observed erosion and sedimentation in the 1980s. This listing basis is faulty because it is not based on any data. Regional Board staff is not aware of evidence to indicate current water quality

standard exceedances or beneficial use impacts related to the listing for

this pollutant.

Non-Numeric Objective: Basin Plan: The suspended sediment load and suspended sediment

discharge rate of surface waters shall not be altered in such a manner as

to cause nuisance or adversely affect beneficial uses.

Water Segment: Chumash Creek

Pollutant: Oxygen, Dissolved

**Decision:** Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list

under section 4.2 of the Listing Policy. Under section 4.2 a single line of

evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. An insufficient number of the samples 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 removing this water

segment-pollutant combination from the section 303(d) list.

This conclusion is based on the staff findings that:

1.The data used satisfies the data quality requirements of section 6.1.4 of the

Policy.

2.The data used satisfies the data quantity requirements of section 6.1.5 of

the Policy.

3. Forty of 245 samples taken over a period of 10 years exceeded the DO cold fresh water quality objective of 7 mg/l and this does not exceed the allowable

frequency listed in Table 4.2 of the Listing Policy.

4. Pursuant to section 4.11 of the Listing Policy, no additional data and

information are available indicating that standards are met.

SWRCB Staff Recommendation:

After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should 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 EvidenceAdverse Biological ResponsesBeneficial Use:CO - Cold Freshwater Habitat

Matrix: Water

Water Quality Objective/ Water Quality Criterion: COLD freshwater habitat water quality objective for D.O. = 7 mg/l

(minimum).

Data Used to Assess Water

Quality:

Chumash Creek was placed on the 2002 303(d) list as impaired from dissolved oxygen because levels fell below the COLD freshwater habitat water quality objective of 7 mg/l. Forty samples of a total of 245 samples taken between 1993 and 2003 fall below this value (CCRWQCB, 2004k).

Spatial Representation: Measurements were taken at 310CHU on Chumash Creek, Calwater

watershed no. 31022012.

Temporal Representation: Two hundred forty five samples were collected over a ten year period of

6/8/1993-7/16/2003. Samples were collected on a monthly or bi-monthly

basis.

QA/QC Equivalent: Water column data collected by RWQCB staff in 1993-2001 were taken

according to the National Monitoring Program Quality Assurance Program Plan. Samples taken in 2003 by the Morro Bay Volunteer Monitoring Program were taken according to protocols for dissolved oxygen sampling in the Morro Bay National Estuary Program's Quality

Assurance Program Plan.

The Morro Bay Volunteer Monitoring Program staff have routine correspondence with volunteers regarding data review, meter operation, and safety. Volunteer monitors collect dissolved oxygen data according to the Morro Bay National Estuary Program's Quality Assurance Program

Plan.

Water Segment: Espinosa Slough

Pollutant: Nutrients

**Decision:** Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list

under section 4.1 of the Listing Policy. Under section 4.1 a single line of

evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. This water body pollutant combination was originally listed without any supporting data. There has never been nor is there currently any data to

support listing of this water body combination.

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 no samples were ever taken to determine if the nutrient water quality objective were exceeded. Pursuant to section 4.11 of the Listing Policy, no additional data and information are

available indicating that standards are not met.

SWRCB Staff Recommendation:

After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should be removed from the section

303(d) list because it cannot be determined if applicable water quality

standards are not attained.

#### Lines of Evidence:

Line of Evidence -N/A

Beneficial Use CM - Commercial and Sport Fishing (CA), R1 - Water Contact

Recreation, R2 - Non-Contact Recreation, WA - Warm Freshwater

Habitat. WI - Wildlife Habitat

Non-Numeric Objective: Request for delisting - Applicable water quality objectives include nutrient

related water quality objectives, including: 1) the water quality objective for unionized ammonia of 0.025 mg/L-N, and 2) the narrative objective for

biostimulatory substances stating that substances cannot cause

nuisance aquatic growths.

Data Used to Assess Water

Quality:

From delisting report: "The Espinosa Slough is currently listed on the 303(d) list as impaired for nutrients. Regional board staff proposes delisting this water body. The Espinosa Slough is located in the lower Salinas River watershed. It was originally placed on the 303(d) list in 1994. At that time, virtually all water bodies located in the lower Salinas valley were listed for nutrients, and often without any supporting data. The listing was based on fact that the surrounding land use is irrigated agriculture, and was therefore believed to be impaired for nutrients.

There has never been, nor is there currently, any data for this body of water. In addition, there exists no anecdotal information to suggest or support impairment."

Espinosa Slough (Calwater watershed: 30911010) in Monterey County Spatial Representation:

Temporal Representation: Submittal on 6/14/2004.

Water Segment: Goleta Slough/Estuary

Pollutant: Metals

**Decision:** Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list

under section 4 of the Listing Policy. The Policy calls for the delisting of waters if the decision is found to be based faulty data and it is demonstrated that the listing would not have occurred in the absence of such faulty data. One line of evidence is available in the administrative record to assess this pollutant.

The data cannot be found that was used to list this pollutant.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification for maintaining the listing for this water segment-pollutant combination.

This conclusion is based on the staff findings that no data is available to assess the status of this water body for this pollutant. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available

indicating that standards are met.

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 no data are available to support the listing.

Lines of Evidence:

Line of Evidence Pollutant-Water

Beneficial Use ES - Estuarine Habitat, WA - Warm Freshwater Habitat

Information Used to Assess

Water Quality:

RWQCB staff have stated that State Mussel Watch, Toxic Substances Monitoring Programs and Regional Board sampling were probably used to develop this listing. The specific sample data referenced cannot be located in Regional Board files and exceedances cannot be verified. According to Dave Hubbard (UCSB), the fact that silver and copper associate with industrial activities was a possible reason the Slough was listed. However, these types of practices have not been occurring since the 1980s and are probably not a source of impairment any longer.

It is unknown why the Slough was listed as impaired for metals in the first place.

Water Segment: Goleta Slough/Estuary

Pollutant: Sedimentation/Siltation

**Decision:** Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list

under section 4 of the Listing Policy. The Policy calls for the delisting of waters if the decision is found to be based faulty data and it is demonstrated that the listing would not have occurred in the absence of such faulty data. One line of evidence is available in the administrative record to assess this pollutant.

The data cannot be found that was used to list this pollutant.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification for maintaining the listing for this water segment-pollutant combination.

This conclusion is based on the staff findings that no data is available to assess the status of this water body for this pollutant. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available

indicating that standards are met.

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 no data are available to support the listing.

Lines of Evidence:

Line of Evidence Adverse Biological Responses

Beneficial Use ES - Estuarine Habitat, WA - Warm Freshwater Habitat

Information Used to Assess

Water Quality:

Goleta Slough was placed on the section 303(d) list because Regional

Board Staff observed erosion and sedimentation in the 1980s.

This listing is faulty because no data is available to support the listing. Regional Board staff are not aware of evidence to indicate current water quality standards exceedances or beneficial use impacts related to the

listing for this pollutant.

Non-Numeric Objective: Basin Plan: The suspended sediment load and suspended sediment

discharge rate of surface waters shall not be altered in such a manner as

to cause nuisance or adversely affect beneficial uses.

Water Segment: Monterey Bay South (Coastline)

Pollutant: Metals

**Decision:** Delist

Weight of Evidence: One line of evidence is available in the administrative record to assess this

pollutant. The listing is faulty. The listing has been cited as 'metals' rather than listing for the pollutant responsible for the impairment. There is no guideline for metals 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. The listing was based on EDLs that do not comply with the requirements of section 6.1.3 of the Policy and a water quality guideline for metals is not available that complies with the requirements of section 6.1.3 of the Policy.

2. The data used satisfies the data quantity requirements of section 6.1.5 of

the Policy.

3. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation:

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

standards for the pollutant are not exceeded.

## Lines of Evidence:

Line of Evidence -N/A

Beneficial Use BI - Preserva.of Bio.Hab.of Spec.Signif., CM - Commercial and Sport

Fishing (CA), MA - Marine Habitat, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WI - Wildlife

Habitat

Non-Numeric Objective: Request to delist - Delisting report refers to OEHHA and USEPA tissue

guidance values.

Data Used to Assess Water

Quality:

There is a proposal to Delist Monterey Bay - South (shoreline) for Metals. The existing 1994 listing is based on State Mussel Watch (SMW) metals data from within Monterey Harbor (SMWP, 2004). No metals impairment exists outside of Monterey Harbor and Monterey Harbor is on the 303(d) List as a separate metals impairment listing (and will remain on the list).

Regional Board files indicate State Mussel Watch Program data from 1982 through 1993 was used as the basis for listing Monterey Bay – South for metals impairment. The available data from 1982 through 1993

were compared to Elevated Data Levels (EDLs) and Median International Standards (MIS). EDLs are no longer considered valid guidelines for determining attainment of water quality standards. The MIS values that were used as indicator values were derived from freshwater fish and therefore were not appropriate comparison values for mussel tissue data. MIS values also are not regulatory values or criteria in the United States. Subsequent to the 1994 listing, additional State Mussel Watch data from 1994 through 1997 has become available. All of the available data were compiled for this evaluation of Monterey Bay - South with respect to metals impairment.

Spatial Representation:

Monterey Bay - South coastline: 3309.5004, at Pacific Grove SMW

station (SMW #414.0).

Temporal Representation:

Submittal on 6/14/2004. State Mussel Watch data from 1977 through

1997.

Water Segment: Monterey Bay South (Coastline)

Pollutant: Pesticides

**Decision:** Delist

Weight of Evidence: One line of ev

One line of evidence is available in the administrative record to assess this pollutant. The listing is faulty. The listing has been cited as "pesticides" rather than listing for the pollutant responsible for the impairment. There is no guideline for pesticides 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. The listing was based on EDLs that do not comply with the requirements of section 6.1.3 of the Policy and a water quality guideline for pesticides is not available that complies with the requirements of section 6.1.3 of the Policy.

  2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
- 3. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation:

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

## Lines of Evidence:

Line of Evidence -N/A

Beneficial Use BI - Preserva.of Bio.Hab.of Spec.Signif., CM - Commercial and Sport

Fishing (CA), MA - Marine Habitat, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, WI - Wildlife

Habitat

Non-Numeric Objective: Request to delist - Delisting report refers to OEHHA and USEPA tissue

guidance values.

Data Used to Assess Water

Quality:

There is a proposal to Delist Monterey Bay - South (shoreline) for Pesticides. The existing 1994 listing is based on State Mussel Watch (SMW) pesticides data that was compared to Elevated Data Levels (EDLs - which are now considered inappropriate comparison values) (SMWP, 2004). The pesticide data from 1988 to present does not exceed current applicable guidance values and, in fact, the only station sampled

since 1988 is the station that is used by the SMW program as a reference site for the central coast (presumed to be relatively

unimpaired). No pesticide impairment exists outside of Moss Landing

Harbor and Moss Landing Harbor will remain on the List as a separate

pesticide impairment.

Monterey Bay - South coastline: 3309.5004, at Pacific Grove SMW station (SMW #414.0). Spatial Representation:

Temporal Representation: Submittal on 6/14/2004. State Mussel Watch data from 1982 through

1997.

Water Segment: Morro Bay

Pollutant: Metals

**Decision:** Delist

Weight of Evidence:

This combined pollutant listing is being considered for removal from the section 303(d) list under section 4 of the Listing Policy. The Policy calls for the delisting of waters if the decision is found to be faulty and it is demonstrated that the listing would not have occurred in the absence of such faulty data. Nine different lines of evidence are available in the administrative record to assess this pollutant listing. The listing included Aluminum, Arsenic, Cadmium, Chromium, and Mercury, which were combined into one listing originally included in the 1996-303(d) metals listing. The listing was originally based on exceedances of Median International Standards (MIS) and Elevated Data Levels (EDL) guidelines for State Mussel Watch tissue data. The MIS and EDL guidelines do not meet the requirements of section 6.1.3 the Listing Policy.

With the exception of Arsenic, determination of exceedances for the remaining metals (individually evaluated) were either not possible because no criteria or guidelines were available but also no exceedances were recorded when compared with applicable acceptable standards either.

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-pollutants combination for metals from the section 303(d) list in the Water Quality Limited Segments category.

This conclusion is based on the staff findings that the guidelines used to assess the status of this water body for the set of metals evaluated does not meet the requirement of the Listing Policy but no exceedances were recorded when each metal was evaluated using acceptable guidelines. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation:

After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should 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-Tissue

Beneficial Use: CM - Commercial and Sport Fishing (CA), MA - Marine Habitat

Matrix: Tissue

Evaluation Guideline: OEHHA screening values of 0.3 ppm.

Data Used to Assess Water

Quality:

None of the 12 samples exceeded the OEHHA screening value at the 4

sampling stations (Keeling, 2003).

Spatial Representation:

Four sites were sampled on Morro Bay: 427.0, 428.5, 429.0, and 429.2.

Temporal Representation:

Sampling occurred from 5-30-1980 to 1-20-1993.

Environmental Conditions:

This is one of five metals originally included in the 1996-303(d) metals listing. The listing was originally based on exceedances of Median International Standards (MIS) and Elevated Data Levels (EDL) guidelines for State Mussel Watch tissue data. The MIS and EDL guidelines do not meet the requirements of the Listing Policy. Two samples out of eight

were found to be above the EDL 85 values (0.06 ppm) with

concentrations of 0.136 ppm and 0.061 ppm wet weight on 1/26/1987 and 1/20/1993 respectively. Both samples were taken at site 429.2.

Data Quality Assessment:

State Mussel Watch Program Quality Assurance Plan.

Numeric Line of Evidence

Pollutant-Water

Beneficial Use:

CM - Commercial and Sport Fishing (CA), MA - Marine Habitat

Matrix:

Water

Water Quality Objective/ Water Quality Criterion:

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

that causes nuisance or adversely affects beneficial uses.

Evaluation Guideline:

There are no acute or chronic criteria for dissolved mercury in saltwater

that meets the requirements of the Listing Policy.

Data Used to Assess Water

Quality:

None of the five samples taken in Morro Bay exceeded because there are no guidelines for dissolved mercury in the saltwater column that meet

the requirements of the Listing Policy (Keeling, 2003).

Spatial Representation:

Water was sampled from five (5) separate locations meant to represent the back, middle and front of the Bay and were also meant to represent the flow from the two creeks that feed the Bay (sites were Front Bay, Middle Bay, Back Bay, Mouth Chorro and Mouth Los Osos. The stations are: Back Bay, Mouth Los Osos, Mouth Chorro, Middle Bay and Front

Temporal Representation:

Water was sampled on March 8, 2001.

Data Quality Assessment:

Battelle Laboratory Quality Assurance Plan.

Numeric Line of Evidence

Pollutant-Water

Beneficial Use:

CM - Commercial and Sport Fishing (CA), MA - Marine Habitat

Matrix:

Water

Evaluation Guideline:

There is no evaluation guideline for the dissolved fraction of chromium for

the protection of aquatic like in marine waters that meets the

requirements of the Listing Policy.

Data Used to Assess Water

Quality:

None of the five samples taken can be compared with the established water quality objective because the established water quality objective is in the total form of chromium and the available data is reported in the

dissolved fraction (Keeling, 2003).

Spatial Representation: Water was sampled from five (5) separate locations representing the

back, middle and front of the Bay including inflows from the mouth of Chorro and the mouth of Los Osos creeks that feed into the Bay. The stations are: Back Bay, Mouth Los Osos, Mouth Chorro, Middle Bay and

Front Bay.

Temporal Representation: Water was sampled on March 8, 2001.

Environmental Conditions: This is one of five metals originally included in the 1996-303(d) metals

listing. The listing was originally based on exceedances of Median International Standards (MIS) and Elevated Data Levels (EDL) guidelines for State Mussel Watch tissue data. The MIS and EDL guidelines do not

meet the requirements of the Listing Policy.

Data Quality Assessment: Battelle Laboratory Quality Assurance Plan.

Numeric Line of Evidence Pollutant-Tissue

Beneficial Use: CM - Commercial and Sport Fishing (CA), MA - Marine Habitat

Matrix: Tissue

Evaluation Guideline: There is no numeric criteria or guideline that meets the requirements of

the Listing Policy for chromium in tissue.

Data Used to Assess Water

Quality:

None of the 12 samples could be evaluated because there are no

numeric criteria or guidelines that meets the requirements of the Listing

Policy for chromium in tissue (Keeling, 2003).

Spatial Representation: Four sites were sampled on Morro Bay: 427.0, 428.5, 429.0, and 429.2.

Temporal Representation: Site 429.0 was sampled on 6/28/1982, 1/21/1983 and 5/3/1983. Site

429.2 was

sampled on 1/26/1987, 3/14/1988, 12/19/1988, 2/2/1990 and 1/20/1993.

Sampling for all other sites occurred from 5-30-98 to 1-20-93.

Environmental Conditions: This is one of five metals originally included in the 1996-303(d) metals

listing. The listing was originally based on exceedances of Median

International Standards (MIS) and Elevated Data Levels (EDL) guidelines for State Mussel Watch tissue data. The MIS and EDL guidelines do not

meet the requirements of the Listing Policy.

Data Quality Assessment: State Mussel Watch Program Quality Assurance Plan.

Numeric Line of Evidence Pollutant-Water

Beneficial Use: CM - Commercial and Sport Fishing (CA), MA - Marine Habitat

Matrix: Water

Water Quality Objective/ Waters sha Water Quality Criterion: nuisance of

Waters shall not contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses. Material Waters shall not contain settleable material in concentrations that result in deposition of material that causes nuisance or adversely affects beneficial uses.

Water quality objective in marine environment - total concentration 0.2

ppb.

Evaluation Guideline: CTR Saltwater acute 42 µg/L Criterion Maximum Concentration (CMC)

and saltwater chronic 9.3 µg/L Criterion Continuous Concentration (CCC)

criteria is applicable.

Data Used to Assess Water

Quality:

None of five samples taken in Morro Bay exceeded any CTR criteria for dissolved cadmium in saltwater. Cadmium concentrations ranged from

0.0686 to  $0.0349 \mu g/L$  (Keeling, 2003).

Spatial Representation: Water was sample

Water was sampled from five (5) separate locations representing the back, middle and front of the Bay including the inflows from the mouth Chorro and the mouth of Los Osos creeks that feed into the Bay. The stations were: Back Bay, Mouth Los Osos, Mouth Chorro, Middle Bay

and Front Bay.

Temporal Representation: Water was sampled on March 8, 2001.

Environmental Conditions: This is one of five metals originally included in the 1996-303(d) metals

listing. The listing was originally based on exceedances of Median International Standards (MIS) and Elevated Data Levels (EDL) guidelines for State Mussel Watch tissue data. The MIS and EDL guidelines do not

meet the requirements of the Listing Policy.

Data Quality Assessment: Battelle Laboratory Quality Assurance Plan.

Numeric Line of Evidence Po

Pollutant-Tissue

Beneficial Use: CM - Commercial and Sport Fishing (CA), MA - Marine Habitat

Matrix: Tissue

Evaluation Guideline: USEPA standard of 4.0 ppm (wet weight) and OEHHA standard of 3.0

ppm (wet weight).

Data Used to Assess Water

Quality:

None of 12 samples from the 4 stations were in exceedance when the data was reevaluated using USEPA and OEHHA criteria (Keeling, S.

2003).

Spatial Representation: Four sites were sampled on Morro Bay: 427.0, 428.5, 429.0, and 429.2.

Temporal Representation: Sampling occurred from 5-30-1980 to 1-20-1993.

Environmental Conditions: This is one of five metals originally included in the 1996-303(d) metals

listing. The listing was originally based on exceedances of Median International Standards (MIS) and Elevated Data Levels (EDL) guidelines for State Mussel Watch tissue data. The MIS and EDL guidelines do not meet the requirements of the Listing Policy. Site 429.2, on 1/26/1987, 3/14/1988, 12/19/1988, 2/2/1990 and 1/20/1993 had levels over the MIS values (levels ranged from 1.01 – 1.23 ppm wet weight). Five out of five samples at site 429.2 were over MIS. One out of three samples were above MIS values at site 429.0 (6/28/1982, 1.17 ppm wet weight).

Data Quality Assessment: State Mussel Watch Program Quality Assurance Plan.

Numeric Line of Evidence Pollutant-Water

Beneficial Use: CM - Commercial and Sport Fishing (CA), MA - Marine Habitat

Matrix: Water

Water Quality Objective/ Water Quality Criterion: Waters shall not contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses. Waters shall not contain settleable material in concentrations that result in deposition of material

that causes nuisance or adversely affects beneficial uses.

Evaluation Guideline: The CTR criteria for the dissolved fraction of selected metals are

applicable for the protection of aquatic life but there are no criteria or

guidelines for the dissolved fraction of aluminum that meet the

requirements of the Listing Policy.

Data Used to Assess Water

Quality:

No exceedances were recorded for all 5 samples because there are no criteria or guidelines for the dissolved fraction of aluminum that meet the

requirements of the Listing Policy (Keeling, 2003).

Spatial Representation: There were five sampling sites throughout Morro Bay. Locations

represented the back, middle, and front of the Bay including inflows from Chorro and Los Osos Creeks. The stations were: Back Bay, Mouth Los

Osos, Mouth Chorro, Middle Bay and Front Bay.

Temporal Representation: Water was sampled on March 8, 2001.

Environmental Conditions: This is one of five metals originally included in the 1996-303(d) metals

listing. The listing was originally based on exceedances of Median International Standards (MIS) and Elevated Data Levels (EDL) guidelines for State Mussel Watch tissue data. The MIS and EDL guidelines do not

meet the requirements of the Listing Policy.

Data Quality Assessment: Battelle Laboratory Quality Assurance Plan.

Numeric Line of Evidence Pollutant-Tissue

Beneficial Use: CM - Commercial and Sport Fishing (CA), MA - Marine Habitat

Matrix: Tissue

Evaluation Guideline: There are no tissue criteria for Aluminum.

Data Used to Assess Water

Quality:

Originally, one out of 12 analyzed samples exceeded the EDL 85 of 138.43 ppm. However, no exceedances are currently recorded because there are no criteria or guidelines for aluminum in tissue that meet the

requirements of the Listing Policy (Keeling, 2003).

Spatial Representation: There were four stations sampled: 427.0, 428.5, 429.0 and 429.2.

Temporal Representation: Site 429.0 was sampled on 6/28/1982, 1/21/1983 and 5/3/1983. Site

429.2 was sampled on 1/26/1987, 3/14/1988, 12/19/1988, 2/2/1990 and 1/20/1993. Site 427.0 was sampled 5-30-1980 and 12-14-1980. Site

428.5 was sampled 5-30-1980 and 12-14-1980.

Environmental Conditions: This is one of five metals originally included in the 1996-303(d) metals

listing. The listing was originally based on exceedances of Median International Standards (MIS) and Elevated Data Levels (EDL) guidelines for State Mussel Watch tissue data. The MIS and EDL guidelines do not

meet the requirements of the Listing Policy (section 6.1.3.2).

Data Quality Assessment: State Mussel Watch Program Quality Assurance Plan.

Line of Evidence -N/A

Beneficial Use CM - Commercial and Sport Fishing (CA), MA - Marine Habitat

Non-Numeric Objective: Request for delisting. Applicable WQO or criterion:

·Basin Plans water quality objectives for marine water

Basin Plans narrative objective for settleable and suspended material California Toxics Rule (Federal Register. Volume 65, No. 97. Part III. Environmental Protection Agency, 40 CFR Part 131. Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants

for the State of California; Rule. Thursday, May 18, 2000.)

Data Used to Assess Water

Quality:

Regional Board staff recommends delisting Morro Bay for metals based

on the fact that (Keeling, S. 2003):

·Water quality objectives are currently being met in the water column, ·Metals present in the sediment appear to be the natural result of local

geology and do not represent pollution,

Levels of metals in tissue appear to be at reasonable levels considering

the natural geology of the area, and

•There appears to be no correlation between the concentration of metals

in the sediment and the water above it.

Spatial Representation: Morro Bay (Calwater watershed 31023012), located on the central coast

of California, about 60 miles north of Point Conception and about 100

miles south of Monterey Bay in San Luis Obispo County.

Temporal Representation: Submittal on 6/14/2004.

Water Segment: Salinas Reclamation Canal

Pollutant: Nitrogen, Nitrate

**Decision:** Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list

under section 4.1 of the Listing Policy. Under section 4.1 a listing can be

removed from the list if it was based on faulty data.

The Salinas Reclamation Canal was erroneously listed as impaired for nitrate because it was assumed that this water body is designated to support the MUN beneficial use. However, the Salinas Reclamation Canal is not designated to support the MUN beneficial use, and the nitrate water quality

objective therefore does not apply.

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 water body was erroneously designated to support the MUN beneficial use, the water quality objective therefore does not apply and applicable water quality standards for the pollutant are not exceeded.

#### Lines of Evidence:

Line of Evidence -N/A

Beneficial Use CM - Commercial and Sport Fishing (CA), R1 - Water Contact

Recreation, R2 - Non-Contact Recreation, WA - Warm Freshwater

Habitat, WI - Wildlife Habitat

Information Used to Assess

Water Quality:

CCAMP and CCoWS datasets.

Non-Numeric Objective: From the delisting report: "Applicable water quality objectives: the 303(d)

listing is for nitrate, which is protected by the nitrate water quality objective protecting the MUN beneficial use. Since the water body is not

designated to support the MUN beneficial use, the nitrate water quality objective does not apply."

Data Used to Assess Water

Quality:

The Salinas Reclamation Canal is currently listed on the 303(d) list as impaired for nitrate. Regional Board staff proposed delisting this water body for nitrate. The Salinas Reclamation Canal is located in the lower Salinas River watershed. It was placed on the 303(d) list in 2002. The Salinas Reclamation Canal was listed as impaired for nitrate because data indicated that the nitrate water quality objective protecting the MUN beneficial use was being exceeded. The nitrate water quality objective

protecting the MUN beneficial use is 10 mg/L-N. The Salinas Reclamation Canal was erroneously listed as impaired for nitrate

because it was assumed that this water body is designated to support the MUN beneficial use. However, the Salinas Reclamation Canal is not designated to support the MUN beneficial use. and the nitrate water

quality objective therefore does not apply.

Salinas Reclamation Canal (Calwater watershed: 30911010) in Monterey County. Spatial Representation:

Temporal Representation: Submittal on 6/14/2004.

Water Segment: Salinas River (lower, estuary to near Gonzales Rd crossing, watersheds

30910 and 30920)

Pollutant: Sedimentation/Siltation

**Decision:** Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list

under section 4 of the Listing Policy. The Policy calls for the delisting of waters if the decision is found to be based faulty data and it is demonstrated that the listing would not have occurred in the absence of such faulty data. One line of evidence is available in the administrative record to assess this pollutant.

The data cannot be found that was used to list this pollutant originally.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification for maintaining the listing for this

water segment-pollutant combination.

This conclusion is based on the staff findings that no data is available to assess the status of this water body for this pollutant. Pursuant to section 4.11

of the Listing Policy, no additional data and information are available

indicating that standards are met.

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 no data are available to support the listing.

Lines of Evidence:

Line of Evidence Pollutant-Water

Beneficial Use WA - Warm Freshwater Habitat

Information Used to Assess

Water Quality:

No data are available to assess this listing.

This listing is faulty because no data area available to support the listing. Regional Board staff is not aware of evidence to indicate current water quality standards exceedances or beneficial use impacts related to the

listing for this pollutant.

Non-Numeric Objective: Basin Plan: The suspended sediment load and suspended sediment

discharge rate of surface waters shall not be altered in such a manner as

to cause nuisance or adversely affect beneficial uses.

Water Segment: Salinas River (middle, near Gonzales Rd crossing to confluence with

Nacimiento River)

Pollutant: Sedimentation/Siltation

**Decision:** Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list

under section 4 of the Listing Policy. The Policy calls for the delisting of waters if the decision is found to be based faulty data and it is demonstrated that the listing would not have occurred in the absence of such faulty data. One line of evidence is available in the administrative record to assess this pollutant.

The data cannot be found that was used to list this pollutant originally.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification for maintaining the listing for this

water segment-pollutant combination.

This conclusion is based on the staff findings that no data is available to assess the status of this water body for this pollutant. Pursuant to section 4.11

of the Listing Policy, no additional data and information are available

indicating that standards are met.

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 no data are available to support the listing.

Lines of Evidence:

Line of Evidence Pollutant-Water

Beneficial Use WA - Warm Freshwater Habitat

Information Used to Assess

Water Quality:

No data are available to assess this listing.

This listing is faulty because no data area available to support the listing. Regional Board staff is not aware of evidence to indicate current water quality standards exceedances or beneficial use impacts related to the

listing for this pollutant.

Non-Numeric Objective: Basin Plan: The suspended sediment load and suspended sediment

discharge rate of surface waters shall not be altered in such a manner as

to cause nuisance or adversely affect beneficial uses.

Water Segment: Salinas River Lagoon (North)

Pollutant: Sedimentation/Siltation

**Decision:** Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list

under section 4 of the Listing Policy. The Policy calls for the delisting of waters if the decision is found to be based faulty data and it is demonstrated that the listing would not have occurred in the absence of such faulty data. One line of evidence is available in the administrative record to assess this pollutant.

The original listing was based on visual observations. No data was used to list this pollutant.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification for maintaining the listing for this water segment-pollutant combination.

This conclusion is based on the staff findings that no data is available to assess the status of this water body for this pollutant. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available

indicating that standards are met.

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 no data are available to support the listing.

**Lines of Evidence:** 

**Line of Evidence** Pollutant-Water

Beneficial Use ES - Estuarine Habitat

Information Used to Assess

Water Quality:

Original listing was based on Regional Board staff visual observations of

erosion. No data or QA/QC information available.

The basis for this listing basis is faulty because no data are available to support the listing. Regional Board staff is not aware of evidence to indicate current water quality standards exceedances or beneficial use

impacts related to the listing for this pollutant.

Non-Numeric Objective: Basin Plan: The suspended sediment load and suspended sediment

discharge rate of surface waters shall not be altered in such a manner as

to cause nuisance or adversely affect beneficial uses.

Water Segment: Salinas River Refuge Lagoon (South)

Pollutant: Nutrients

**Decision:** Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list

under section 4.1 of the Listing Policy. Under section 4.1 a single line of

evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. There has never been, nor is there currently, any data for this body

of water.

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.

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:

Line of Evidence -N/A

Beneficial Use BI - Preserva.of Bio.Hab.of Spec.Signif., CM - Commercial and Sport

Fishing (CA), CO - Cold Freshwater Habitat, MI - Fish Migration, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, SH - Shellfish Harvesting, WA - Warm Freshwater

Habitat, WI - Wildlife Habitat

Non-Numeric Objective: From delisting report: No applicable water quality objectives apply

because the area cannot support beneficial uses as described in the Water Quality Control Plan. This is contradictory to the current Water Quality Control Plan that articulates beneficial uses to be supported: the

Water Quality Control Plan will need to be amended.

Data Used to Assess Water

Quality:

The Salinas River Refuge Lagoon (South) is currently listed on the 303(d) list as impaired for nutrients. Regional Board staff proposed delisting this water body. The Salinas River Refuge Lagoon (South) is located in the lower Salinas River watershed. It was originally placed on the 303(d) list in 1994. At that time, virtually all water bodies located in the lower Salinas valley were listed for nutrients, and often without any supporting data. The listing was based on fact that the surrounding land use is irrigated agriculture, and was therefore believed to be impaired for nutrients. There has never been, nor is there currently, any data for this body of water. In addition, there exists no anecdotal information to suggest or support impairment. Most importantly, the Salinas River Refuge Lagoon (South) is not a receiving water body of water flowing in

the Salinas River Watershed. Rather, it is a depression in the land adjacent to the Pacific Ocean. The depression sporadically retains water during and after some high tide events and extreme rain events, and then

soon returns to a terrestrial land area thereafter.

Spatial Representation: Salinas River Refuge Lagoon (South) (Calwater watershed: 30911010) in

Monterey County.

Temporal Representation: Submittal on 6/14/2004.

Water Segment: Salinas River Refuge Lagoon (South)

Pollutant: Pesticides

**Decision:** Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list

under section 4 of the Listing Policy. The Policy calls for the delisting of waters if the decision is found to be based faulty data and it is demonstrated that the listing would not have occurred in the absence of such faulty data. One line of evidence is available in the administrative record to assess this pollutant.

The data cannot be found that was used to list this pollutant originally.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification for maintaining the listing for this

water segment-pollutant combination.

This conclusion is based on the staff findings that no data is available to assess the status of this water body for this pollutant. Pursuant to section 4.11

of the Listing Policy, no additional data and information are available

indicating that standards are met.

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 no data are available to support the listing.

Lines of Evidence:

Line of Evidence Testimonial Evidence

Beneficial Use WA - Warm Freshwater Habitat

Information Used to Assess

Water Quality:

No data are available. Regional Board staff is not aware of evidence to indicate current water quality standards exceedances or beneficial use

impacts related to the listing for this pollutant.

Water Segment: Salinas River Refuge Lagoon (South)

Pollutant: Salinity/TDS/Chlorides

**Decision:** Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list

under section 4 of the Listing Policy. The Policy calls for the delisting of waters if the decision is found to be based faulty data and it is demonstrated that the listing would not have occurred in the absence of such faulty data. One line of evidence is available in the administrative record to assess this pollutant.

The data cannot be found that was used to list this pollutant originally.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification for maintaining the listing for this

water segment-pollutant combination.

This conclusion is based on the staff findings that no data is available to assess the status of this water body for this pollutant. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available

indicating that standards are met.

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 no data are available to support the listing.

Lines of Evidence:

Line of Evidence Testimonial Evidence

Beneficial Use WA - Warm Freshwater Habitat

Information Used to Assess Water Quality:

No data are available. Regional Board staff is not aware of evidence to indicate current water quality standards exceedances or beneficial use

impacts related to the listing for this pollutant.

The Refuge Lagoon experiences a wide range of salinities depending on the stage of the Salinas River. During high flows, the Refuge Lagoon may be inundated by the Salinas River and therefore may experience salinities comparable to freshwater (<1 ppt). During high surf, breakers may overtop the dunes to the west of the refuge lagoon and it may experience salinities comparable to seawater (~35 ppt). During the summer, the refuge lagoon may evaporate, raising salinity concentrations to over 150 ppt. These are all natural states for the water body as it is configured today therefore the Salinas River Refuge Lagoon (South) should be delisted for Salinity/TDS/Chlorides.

Water Segment: San Antonio Creek (South Coast Watershed)

Pollutant: Sedimentation/Siltation

**Decision:** Delist

Weight of Evidence: The correction is requested for San Antonio Creek (South Coast Watershed)

Sedimentation/Siltation. This water body was incorrectly assigned to a sedimentation/siltation problem. The correct water bodies are Shuman

Canyon Creek and Casmalia Canyon Creek.

The 303(d) List Table should be revised to remove San Antonio Creek (South Coast Watershed) for Sedimentation/Siltation and add Casmalia Canyon Creek (4.5 miles) and Shuman Canyon Creek (3.0 miles) (313004) for

Sedimentation/Siltation.

The original listing recommendation originated with Regional Board staff, however there was a misunderstanding of the applicable water body recommended for listing by staff. This change will correct that mistake.

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:

## Line of Evidence

-N/A

Beneficial Use

AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), GW - Groundwater Recharge, MI - Fish Migration, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, SP - Fish Spawning, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Data Used to Assess Water Quality:

The correction is requested for San Antonio Creek (South Coast Watershed) Sedimentation/Siltation. This water body was incorrectly assigned to a sedimentation/siltation problem. The correct water bodies are Shuman Canyon Creek and Casmalia Canyon Creek.

The 303(d) List Table should be revised to remove San Antonio Creek (South Coast Watershed) for Sedimentation/Siltation and add Casmalia Canyon Creek (4.5 miles) and Shuman Canyon Creek (3.0 miles) (313004) for Sedimentation/Siltation.

The original listing recommendation originated with Regional Board staff, however there was a misunderstanding of the applicable water body recommended for listing by staff. This change will correct that mistake.

Spatial Representation: San Antonio Creek (South Coast Watershed)

Temporal Representation: Correction Submittal on 6/14/2004.

Water Segment: San Luis Obispo Creek (Below W Marsh Street)

Pollutant: Priority Organics

**Decision:** Delist

Weight of Evidence: This pollutant is being considered for removal from the section 303(d) list

under section 4.1 of the Listing Policy. Under section 4.1 a single line of

evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this

pollutant. One of the samples 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 removing this water

segment-pollutant combination from the section 303(d) list.

This conclusion is based on the staff findings that:

1. The guidelines used do not satisfy the requirements of section 6.1.3 of the

Policy.

2. The listing was based on MTRLs and EDLs which are not allowed by the

Listing Policy.

3. Pursuant to section 4.11 of the Listing Policy, no additional data and

information are available indicating that standards are met.

SWRCB Staff Recommendation:

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

standards for the pollutant are exceeded.

## Lines of Evidence:

Line of Evidence -N/A

Beneficial Use AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO -

Cold Freshwater Habitat, GW - Groundwater Recharge, MI - Fish Migration, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, SP -

Fish Spawning, WI - Wildlife Habitat

Non-Numeric Objective: Request for delisting - document mentions criteria based on:

OEHHA and USEPA tissue guidance values

CTR for water column data

Data Used to Assess Water

Quality:

This is a proposal to remove San Luis Obispo Creek from the 303(d) list for priority organics. San Luis Obispo Creek (Creek) was placed on the

1998 303(d) list as impaired from priority organics because levels of PCB, HCH (lindane) and chlordane exceeded MTRLs and EDLs. A total

of two tissue samples were used to list the Creek as impaired

(CVRWQCB, 2004N).

MTRLs and EDLs are no longer considered criteria for placing water bodies on the 303(d) list. RWQCB staff have therefore developed a listing rationale for organic compounds. The rationale is largely based on efforts by Dave Smith and Peter Kozelka of EPA and their work on the Newport Bay/San Diego Creek toxicity TMDL. The rationale is compiled in a document held in Region-3 titled Decision Document for the Elkhorn Slough. The rationale is used herein as support for recommending that the Creek be delisted for priority organics.

The RWQCB of the Central Coast Region recommends delisting San Luis Obispo Creek as impaired by priority organics. RWQCB staff make this recommendation based on the analysis presented in the delisting report concluding that there exists insufficient evidence suggesting that the constituents of concern (PCB, chlordane, and HCH) are present at levels posing a risk to humans or wildlife.

Spatial Representation:

San Luis Obispo Creek in San Luis Obispo County near and including the City of San Luis Obispo - Hydrologic Unit 310.240

Waddell Creek, East Branch **Water Segment:** 

**Nutrients** Pollutant:

Delist Decision:

This pollutant is being considered for removal from the section 303(d) list Weight of Evidence:

under section 4.1 of the Listing Policy. Under section 4.1 a single line of

evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this

pollutant. None of the samples exceed the water quality objective.

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. 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 54 samples exceeded the unionized ammonia water quality objective and this does not exceed the allowable frequency listed in Table 4.1 of the Listing Policy.

4. Pursuant to section 4.11 of the Listing Policy, no additional data and

information are available indicating that standards are 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:

Line of Evidence -N/A

Beneficial Use BI - Preserva.of Bio. Hab. of Spec. Signif., CM - Commercial and Sport

Fishing (CA), CO - Cold Freshwater Habitat, FR - Freshwater

Replenishment, GW - Groundwater Recharge, MI - Fish Migration, MU -Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, SP - Fish Spawning, WI -

Wildlife Habitat

Non-Numeric Objective: From delisting report:

The Water Quality Control Plan, Central Coast Region (Basin Plan),

contains the following unionized ammonia objective:

The discharge of wastes shall not cause concentrations of unionized ammonia (NH3) to exceed 0.025 mg/l (as N) in receiving waters. The Water Quality Control Plan, Central Coast Region (Basin Plan),

contains the following narrative objective:

Biostimulatory Substances:

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

This objective does not prohibit biostimulatory substances; it only prohibits biostimulatory substances that cause nuisance or adversely affects beneficial uses.

Data Used to Assess Water Quality:

Fifty-four samples were collected and the objective was not exceeded in any of the samples (CVRWQCB, 2004B).

## From Report:

The east fork of the Waddell Creek was listed as impaired for nutrients in 1990. The creek was listed because of ammonia violations at the NPDES facility, California Department of Parks and Recreation, Big Basin Redwoods State Park Wastewater Treatment Plant. Another reason for the listing was the California Department of Fish and Game issued a report in 1980 indicating dense growths of filamentous algae were growing downstream of the treatment plant in sunlight areas. They attributed the algal growth to nutrients.

Ammonia discharge violations have reoccurred in the past but no violations have occurred since 2002. Ammonia is converted to nitrate through the nitrogen cycle and becomes available as a possible promoter of plant growth. Since the listing in 1990, the treatment plant has been upgraded. The upgrade included the addition of clinoptolite filtration for ammonia removal. Ammonia violations have dramatically decreased since 1998.

Spatial Representation:

Waddell Creek, East Branch (Calwater Watershed: 30411010), located in Santa Cruz County, California approximately two-thirds of the way from San Francisco to Monterey Bay. Samples were collected at: West Waddell Creek upstream confluence of East Waddell Creek; Opal Creek upstream confluence of East Waddell Creek; Blooms Creek upstream confluence of East Waddell Creek; East Branch of Waddell Creek 145 feet upstream of NPDES discharge; East Branch of Waddell Creek 100 feet downstream of NPDES discharge; East Branch of Waddell Creek approximately 1000 feet upstream of old Last Chance Road bridge crossing; East Branch of Waddell Creek at old Last Chance Road bridge crossing; East Waddell Creek upstream confluence of West Waddell Creek; Lower Waddell Creek; Lower Waddell at Alder Camp; Lower Waddell at bridge; Lower Waddell at Marsh Trail.

Temporal Representation:

Started sampling and collecting information on September 24, 2002. We completed the sampling and collection on October 7, 2003.

Water Segment: Watsonville Slough

Pollutant: Sedimentation/Siltation

**Decision:** Delist

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

Policy. 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. No data is presented to show impacts or lack of impacts on aquatic life populations or communities. Suspended solids concentrations are well below the level that may impact at least one species present in Watsonville Slough. Visual assessment of sedimentation did not reveal any probable impacts.

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 guideline used complies generally 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 338 samples exceeded the evaluation guideline. No data are available to show impacts on aquatic life.
- 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: WA - Warm Freshwater Habitat

Matrix: Water

Water Quality Objective/ Water Quality Criterion: Basin Plan: The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as

to cause nuisance or adversely affect surface waters.

Evaluation Guideline: Three spine stickleback occurs in the Slough and in studies no mortality

was observed in a test to identify the lethal threshold for sediment at a

concentration of 28,000 mg/L (LeGore and Des Voigne, 1973).

Data Used to Assess Water

Quality:

Sediment concentration has been studied by many investigators. All available data was reviewed and summarized by (Hager, J. and F.

Watson 2005).

For suspended sediment concentration, 338 representative

measurements are available. None of the measurements exceed the

sediment threshold.

Spatial Representation: Samples were collected at least 13 stations throughout the slough

system.

Temporal Representation: Samples were collected between 1976 and 2004 during all seasons.

Data Quality Assessment: Most of the data were collected under a Quality Assurance Project Plan

prepared by Central Coast Watershed Studies, The Watershed Institute

at California State University Monterey Bay.

#### Line of Evidence

Beneficial Use

Information Used to Assess

Water Quality:

Narrative Description Data

WA - Warm Freshwater Habitat

Smothering of benthic habitat by sedimentation was not significantly evident, but was also difficult to study. A visual reconnaissance was conducted for signs of excessive recent sedimentation. Unequivocal smothering of habitat could only be documented photographically in small portions of the Watsonville Slough system. Other areas were either stable, contained coarse sediment, contained fine sediment in amounts that did not contradict the expectation of a natural system, were under water, or were not accessible (Hager, J. and F. Watson 2005).

Non-Numeric Objective:

Basin Plan: The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as

to cause nuisance or adversely affect surface waters.

## Line of Evidence

Beneficial Use

Information Used to Assess Water Quality:

Narrative Description Data

WA - Warm Freshwater Habitat

Long-term aggregation of sediments and reduction in aquatic habitat volume was not evident. Aquatic habitat volume appears to be increasing due to land subsidence associated with de-watering of the area for peat mining and agriculture in the early 1900s, ground water pumping, and possibly local seismic activity. Scientists re-surveyed an old road survey across Struve Slough and Watsonville Slough, and found evidence of subsidence on the order of 10 to 20 mm/year since 1952. Obtained sediment cores in the tidal marsh of lower Watsonville Slough dating back to the 1400s and they were analyzed using radiocarbon dating. pollen, and lead-210. The data suggested an anthropogenic increase in sedimentation surrounding the expansion of agriculture in the first half of the 1900s, but net sedimentation rates since about 1950 appear to have been lower than in pre-historic times. This is likely attributed to decreased sediment supply to the lower reaches resulting from subsidence and the construction of the tide gates in the 1940s (Hager, J.

and F. Watson 2005).

Non-Numeric Objective:

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

# Central Coast Region (3)

# Area Change

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

Water Segment: Alamo Creek

Pollutant: None

**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 -N/A

Beneficial Use AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO -

Cold Freshwater Habitat, GW - Groundwater Recharge, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, SP - Fish Spawning, WA - Warm

Freshwater Habitat, WI - Wildlife Habitat

Data Used to Assess Water

Quality:

Email from Lisa McCann of RWQCB3 including the following files: "FS - Correction-maps Rec Canal-Alamo-Or-Sol-LosOsosRevised.doc" and "Map\_Alamo Creek, Orcutt Solomon\_correction.doc". The map shows requested changes and states "Include this reach for Alamo Creek" (the reach above 312ALA). This reach has been identified as an incorrect reach identified as a listed water body on the shapefile for all listed

pollutants.

Spatial Representation: Alamo Creek (312) in Santa Barbara County.

Temporal Representation: Email from Lisa McCann dated 7/14/2004.

Water Segment: Los Osos Creek

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 -N/A

Beneficial Use AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO -

Cold Freshwater Habitat, ES - Estuarine Habitat, FR - Freshwater Replenishment, GW - Groundwater Recharge, MI - Fish Migration, MU -Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SP - Fish Spawning, WA - Warm Freshwater Habitat, WI -

Wildlife Habitat

Information Used to Assess

Water Quality:

See files: "FS - Correction-maps Rec Canal-Alamo-Or-Sol-

LosOsosRevised.doc" and "Map\_Los Osos

Creek correction Revised.doc".

Non-Numeric Objective: Map changes-no objective.

Data Used to Assess Water

Quality:

Email from Lisa McCann of RWQCB3 including the following files: "FS - Correction-maps Rec Canal-Alamo-Or-Sol-LosOsosRevised.doc" and "Map Los Osos Creek correction Revised doc". The map shows

"Map\_Los Osos Creek\_correction\_Revised.doc". The map shows requested changes and states "Remove upper reaches of Los Osos Creek From 303(d) shapefile". This reach has been identified as an incorrect reach identified as a listed water body on the shapefile for all

listed pollutants.

Spatial Representation: This map change request affects the upper reaches of Los Osos Creek in

San Luis Obispo County.

Temporal Representation: Email from Lisa McCann dated 7/14/2004.

Water Segment: Orcutt Creek

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 -N/A

Beneficial Use AG - Agricultural Supply, CM - Commercial and Sport Fishing (CA), CO -

Cold Freshwater Habitat, ES - Estuarine Habitat, FR - Freshwater Replenishment, GW - Groundwater Recharge, MU - Municipal &

Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation,

RA - Rare & Endangered Species, WI - Wildlife Habitat

Data Used to Assess Water

Quality:

Email from Lisa McCann of RWQCB3 including the following files: "FS - Correction-maps Rec Canal-Alamo-Or-Sol-LosOsosRevised.doc" and "Map\_Alamo Creek, Orcutt Solomon\_correction.doc". The map shows requested changes and states, "Add the reach between 3120RC and

3120RI to shape file and listing for fecal and nitrate."

Spatial Representation: Orcutt-Solomon Creek (312) in Santa Barbara County.

Temporal Representation: Email from Lisa McCann dated 7/14/2004.

Water Segment: Pacific Ocean at Arroyo Burro Beach (Santa Barbara County)

**Pollutant:** Total Coliform

**Decision:** Accept Area Change

Weight of Evidence: The data and information in the administrative record supports this change in

correctly assigning the water body pollutant combination to this area.

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** Pollutant-Water

Beneficial Use R1 - Water Contact Recreation

Information Used to Assess

Water Quality:

See file: "3-5u\_FS - Correction-Arroyo Burro Creek pathogens.doc" for

further information.

Data Used to Assess Water Quality:

The correction is requested for Arroyo Burro Creek Pathogens (Cal Watershed 31532010). This water body was incorrectly assigned to a pathogen problem. The correct water body is the Pacific Ocean at Arroyo Burro Beach (Santa Barbara County). Arroyo Burro Creek was listed in 1998 because of beach closures. Therefore, the beach, rather than the creek, should have been listed.

The Pacific Ocean at Arroyo Burro Creek is on the 2002 303(d) List (for

Total Coliform). Therefore the only correction necessary is to delete

Arroyo Burro Creek.

Spatial Representation: Pacific Ocean at Arroyo Burro Beach (Santa Barbara County)
Temporal Representation: Correction Submittal on 6/14/2004. Original listing in 1998.

Line of Evidence

Pollutant-Water

Beneficial Use R1 - Water Contact Recreation

Information Used to Assess

Water Quality:

See file: "3-5t\_FS - Correction- Santa Barbara Co Beaches.doc" for further information.

Data Used to Assess Water

Quality:

There are three beaches in Santa Barbara County that have a larger impacted size than most of the other beaches. We believe the extent of impairment should be similar to the convention used for most Santa Barbara County beaches. There is no evidence in the record to support the larger area extent indicated on the current list. Please reduce the size for Pacific Ocean at Arroyo Burro Beach from 3.1 miles to 0.06 miles.

Pacific Ocean at Arroyo Burro Beach, in Santa Barbara County (31532010). Change from 3.1 miles to 0.06 miles. Spatial Representation:

Correction Submittal on 6/14/2004. Temporal Representation:

Pacific Ocean at Carpinteria State Beach (Carpinteria Creek mouth, Santa **Water Segment:** 

Barbara County)

Pollutant: Coliform Bacteria

Accept Area Change Decision:

This pollutant is being considered for removal from the section 303(d) list Weight of Evidence:

under section 4.3 of the Listing Policy. Under section 4.3 a single line of

evidence is necessary to assess delisting status.

One line of evidence is available in the administrative record to assess this pollutant. The available line of evidence requests a correction in the aerial extent of coliform bacteria impairment. There are three beaches in Santa Barbara County that have a larger impacted size than most of the other beaches. The extent of impairment should be similar to the convention used for most Santa Barbara County beaches. There is no evidence to support the larger aerial extent indicated on the current list. The extent of impairment for Pacific Ocean at Carpinteria State Beach should be reduced from 0.35 miles to 0.06 miles.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against removing this water segment-pollutant combination from the section 303(d) list but the size extent of the impairment should be reduced from 0.35 miles to 0.06 miles. Pursuant to section 4.11 of the Listing Policy, no additional data and information are

available indicating that standards are met.

**SWRCB Staff** Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be removed from on the section 303(d) list because applicable water quality standards are exceeded but the size of the impaired area is smaller than originally listed.

## Lines of Evidence:

Line of Evidence Pollutant-Water

Beneficial Use AG - Agricultural Supply

Information Used to Assess

Water Quality:

See file: "3-5t FS - Correction- Santa Barbara Co Beaches.doc" for

further information.

Non-Numeric Objective: Correction - no objective.

Data Used to Assess Water

Quality:

There are three beaches in Santa Barbara County that have a larger impacted size than most of the other beaches. We believe the extent of impairment should be similar to the convention used for most Santa Barbara County beaches. There is no evidence in the record to support the larger aerial extent indicated on the current list. Please reduce the size for Pacific Ocean at Carpinteria State Beach from 0.35 miles to 0.06

miles.

Pacific Ocean at Carpinteria State Beach, Carpinteria Creek mouth in Santa Barbara County (31534020). Change from 0.35 miles to 0.06 Spatial Representation:

miles.

Correction Submittal on 6/14/2004. Temporal Representation:

Water Segment: Pacific Ocean at Jalama Beach (Santa Barbara County)

Pollutant: Bacteria

**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 -N/A

Beneficial Use AQ - Aquaculture

Information Used to Assess

Water Quality:

See file: "3-5t\_FS - Correction- Santa Barbara Co Beaches.doc" for

further information.

Data Used to Assess Water

Quality:

There are three beaches in Santa Barbara County that have a larger impacted size than most of the other beaches. We believe the extent of impairment should be similar to the convention used for most Santa Barbara County beaches. There is no evidence in the record to support the larger aerial extent indicated on the current list. Please reduce the size for Pacific Ocean at Jalama Beach from 3.3 miles to 0.06 miles.

Spatial Representation: Pacific Ocean at Jalama Beach, in Santa Barbara County (31510051).

Change from 3.3 miles to 0.06 miles.

Temporal Representation: Correction Submittal on 6/14/2004.

Water Segment: Rider Creek

Pollutant:

**Decision:** Accept Area Change

Weight of Evidence: The data and information in the administrative record supports this change in

water body name.

SWRCB Staff

Recommendation:

After review of the available data and information, SWRCB staff concludes

that the water body name should be changed as presented.

**Lines of Evidence:** 

Line of Evidence -N/A

Beneficial Use CM - Commercial and Sport Fishing (CA), CO - Cold Freshwater Habitat,

GW - Groundwater Recharge, MI - Fish Migration, MU - Municipal & Domestic, R1 - Water Contact Recreation, R2 - Non-Contact Recreation,

SP - Fish Spawning, WI - Wildlife Habitat

Information Used to Assess

Water Quality:

See files: "3-5s\_FS - Correction- Rider Creek.doc", "3-5kk\_Map\_Rider

Creek1.jpg", and "3-5II Map Rider Creek2 - topo.jpg" for further

information.

Data Used to Assess Water

Quality:

This submission is a request to correct the name of a listed water body.

The incorrect name of the listed water body is Rider Gulch Creek. This

name should be corrected to Rider Creek.

Associated figures included a photocopy of USGS 7.5-minute quadrangle map, Loma Prieta, California (1996) and a GIS figure that was derived from the CALWTR3 dataset. The CALWATER watershed number that is

referenced on the 303d list is correct (30510010).

Spatial Representation: Rider Creek (CAL Watershed 30510010).

Temporal Representation: Correction Submittal on 6/14/2004.

Water Segment: Salinas Reclamation Canal

Pollutant: None

**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 -N/A

Beneficial Use CM - Commercial and Sport Fishing (CA), R1 - Water Contact

Recreation, R2 - Non-Contact Recreation, WA - Warm Freshwater

Habitat, WI - Wildlife Habitat

Data Used to Assess Water

Quality:

The Salinas Reclamation Canal is not identified, nor is it included in the Reach3 file. This water body needs to be added to the shapefile and identified as listed. The map shows the reaches to be added and states "Add Waterbody and show listing. Salinas Reclamation Canal flows

parallel to Alisal Slough."

Spatial Representation: Salinas Reclamation Canal (309) in Monterey County.

Temporal Representation: Request submitted via email on 7/14/2004.