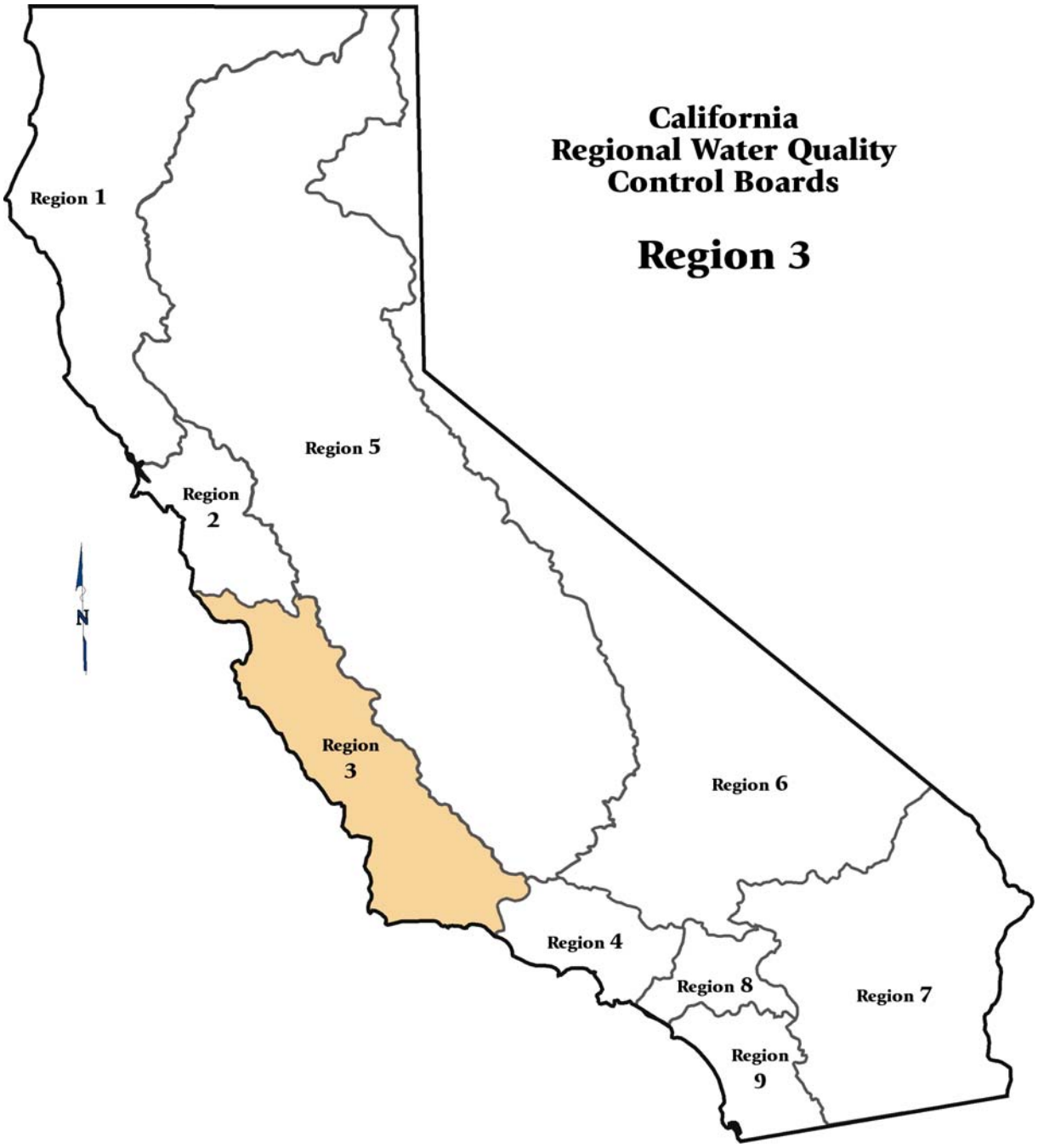
Fact Sheets Supporting
"Do Not List" Recommendations



September 2006

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New or Revised Fact Sheets

New or Revised Fact Sheets

Region 3

Water Segment:	Morro Bay
Pollutant:	Arsenic
Decision:	Do Not List
Weight of Evidence:	This pollutant is being considered for placement on the section 303(d) list under sections 3.5 of the Listing Policy. Under section 3.5 a single line of evidence is necessary to assess listing status. Two lines of evidence are available in the administrative record to assess this pollutant. Based on the readily available data and information, the weight of evidence indicates that there is not 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, USEPA and OEHHA screening values used complies with the requirements of section 6.1.3 of the Policy. 2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy. 3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy. 4. None of five water column samples exceeded the CTR Saltwater acute (CMC) and saltwater chronic (CCC) criteria, and none of 2 tissue samples exceeded the USEPA criteria for inorganic arsenic and these do not 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 not be placed on the section 303(d) list because applicable water quality standards are being met.
Lines of Evidence:	

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:	CTR saltwater acute 69 µg/L Criterion Maximum Concentration (CMC) and saltwater chronic 36 µg/L Criterion Continuous Concentration (CCC) criteria are applicable for the protection of aquatic life.

Data Used to Assess Water Quality:	None of the five samples taken at the 5 stations exceeded any of the CTR dissolved arsenic criteria in the water column (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 mouths of Chorro and Los Osos Creeks who each feed the Bay. These stations were: Back Bay, Mouth Los Osos, Mouth Chorro, Middle Bay and Front Bay.
Temporal Representation:	Water was sampled on March 8, 2001.
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:	The USEPA criteria for inorganic arsenic is 1.2 ppm wet weight and the OEHHA criteria is 1.0 ppm wet weight for total arsenic.
Data Used to Assess Water Quality:	Evaluation of the inorganic arsenic clam tissue data using the USEPA criteria resulted in 2 of 2 samples not exceeding the criteria. Sampling station 429.0, outside of the mouth of the Bay recorded levels of 0.145 ppm and 0.174 ppm inorganic arsenic. Tissue were measured at 1.45 and 1.74 ppm as total arsenic (Keeling, 2003).
Spatial Representation:	Four sites were sampled on Morro Bay. One station was evaluated for this listing: 429.0. There were a total of 4 sampling stations: 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. Sampling for the remaining three stations 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.
Data Quality Assessment:	State Mussel Watch Program Quality Assurance Plan.

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Original Fact Sheets

Fact Sheets Not Changed
from September 2005 Version

Region 3

Water Segment: Betteravia Lakes

Pollutant: Ammonia (Unionized) - Toxin

Decision: Do Not 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 of the samples exceed the water quality objective; however, the samples were not taken at this water body and are not representative of this waterbody.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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 does not satisfy the data quantity requirements of section 6.1.5.2 of the Policy. Samples were collected on a culvert adjacent to Black Road and do not represent the water quality on Betteravia Lake.
3. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

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

Matrix: Water

Water Quality Objective/ Water Quality Criterion: WQO = 0.025 mg/L

Data Used to Assess Water Quality: From new listing proposal: Regional Board staff is proposing that multiple waterbodies (including Santa Maria River) 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 one site on the Betteravia Lakes: 2 of

	6 data points exceed the criterion. However, the Regional Board has retracted the request to list the Betteravia Lakes based on the fact that "further investigation into the site (312OLA) lead to the conclusion that the data is not representative of true environmental conditions." (12/15/04) A map showing the sampling location confirms that the original request to list was in error.(CCAMP, 2004; SWAMP, 2004).
Spatial Representation:	Data were collected at site 312OLA on the a culvert adjacent to Black Road, in Santa Barbara County
Environmental Conditions:	"The samples were collected on a culvert adjacent to Black Road and do not represent the water quality on Betteravia Lakes." taken from an email from Lisa McCann.
Data Quality Assessment:	CCAMP, SWAMP.
QA/QC Equivalent:	Samples were taken according to CCAMP protocols.

Region 3

Water Segment:	Betteravia Lakes
Pollutant:	Nitrate as Nitrate (NO3)
Decision:	Do Not 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, however the sampling location(s) is not representative of this waterbody. Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of placing this water segment-pollutant combination on the section 303(d) list in the Water Quality Limited Segments category. This conclusion is based on the staff findings that: 1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy. 2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy. 3. Six of 9 samples exceeded the MCL. However, the sampling location(s) are not representative of the waterbody. 4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be placed on the section 303(d) list because it cannot be determined if applicable water quality standards are being met or exceeded.

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:	Six 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 one site on a culvert adjacent to Black Road.
Temporal Representation:	Samples were collected from January 2000 to February 2001.
Environmental Conditions:	The waterbody is located in the Santa Maria hydrologic unit, Guadalupe hydrologic subarea. "The samples were collected on a culvert adjacent to Black Road and do not represent the water quality on Betteravia Lakes." taken from email from Lisa McCann.
Data Quality Assessment:	CCAMP, SWAMP QAPP.

Region 3

Water Segment: Blosser Channel

Pollutant: Ammonia (Unionized) - Toxin

Decision: Do Not 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. 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 insufficient 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. 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 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be placed on the section 303(d) list because the original listing was faulty.

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: Three of 11 data points exceed the water quality objective (CCAMP, 2004; SWAMP, 2004).

Spatial Representation:	Data were collected at site 312BCD on Blosser Channel, in Santa Barbara County. This data represents only the retention pond overflow as the upstream channel was dry most of the year.
Temporal Representation:	Samples were collected from May 2000 to February 2001. 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.
Environmental Conditions:	The waterbody is located in the Santa Maria hydrologic unit, Guadalupe hydrologic area, Guadalupe hydrologic subarea. The monitoring site is located at Blosser Channel downstream of groundwater recharge ponds (312BCD). In 2000 this site was downstream of a storm water channel and the discharge from groundwater recharge ponds. As of 2003 a housing development is underway and this site will be completely converted to storm water channel after the projects completion.
Data Quality Assessment:	CCAMP and SWAMP QAPP.
QA/QC Equivalent:	Samples were taken according to CCAMP protocols.

Region 3

Water Segment: Corralitos Creek

Pollutant: Oxygen, Dissolved

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under section 3.2 (Conventional and Other Pollutants) of the Listing Policy. Under section 3.2 a single line of evidence is adequate to assess listing status.

At least one line of evidence is available in the administrative record to assess this pollutant. Per Table 3.2 of the Policy, an insufficient number of samples exceed the applicable water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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 16 samples exceeded the dissolved oxygen water quality objective and this does not exceed 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 not be placed on the section 303(d) list because applicable water quality standards for the pollutant are not exceeded.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

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

Matrix: Water

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

WARM: Dissolved oxygen concentration shall not be reduced below 5.0

	mg/L at any time.
Data Used to Assess Water Quality:	Four of 16 samples exceed the water quality objectives (CCAMP, 2004).
Spatial Representation:	One sample site.
Temporal Representation:	Monthly sampling. Samples were taken from 8/18/97 to 12/16/98; over 15 sampling dates.
Data Quality Assessment:	CCAMP

Region 3

Water Segment:	Monterey Bay South (Coastline)
Pollutant:	Arsenic
Decision:	Do Not List
Weight of Evidence:	This pollutant is being considered for placement on the section 303(d) list under sections 3.4, and 3.4 of the Listing Policy. Under section 3.6 a single line of evidence is necessary to assess listing status Two lines of evidence are available in the administrative record to assess this pollutant. Based on section 3.4 the site does not show significant arsenic bioaccumulation and the pollutant is not 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 against 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 Guidance for Fish Advisories used complies with the requirements of section 6.1.3 of the Policy. 2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy. 3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy. 4. None of six samples exceeded the USEPA guideline, samples exhibit exceedances for total arsenic but when further analyzed for levels of inorganic arsenic as recommended by OEHHA, these do not 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 not be placed on the section 303(d) list because applicable water quality standards for the pollutant are not exceeded.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Tissue
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
Matrix:	Tissue
Evaluation Guideline:	USEPA screening value for inorganic arsenic. In fish tissue, the most appropriate screening value is 1.2 ppm wet weight for inorganic Arsenic. This is supported by EPA scientists and policy makers. (see excerpt from EPA Guidance for Fish Advisories, 2000 and Newport Bay Toxics TMDLs, 2002).
Data Used to Assess Water Quality:	All six samples exceeded the Cal-OEHHA screening value (CVRWQCB, 2004M). All six samples were below the USEPA's screening value for tissue. Values screened were for total arsenic. OEHHA recommends that, when total arsenic screening values are used and there are many exceedances, inorganic analyses (via outside lab if necessary) should be requested to further evaluate the extent of the problem (Brodberg, pers. comm. 2002). USEPA has determined if study results provide only wet weight measurements of total As, then convert (via calculation) total arsenic results into inorganic estimates by assuming that inorganic As is between 4 or 10% of total As concentration. Using these assumptions, the arsenic samples do not exceed the USEPA criteria.
Spatial Representation:	Pacific Grove SMW station at sampling stations 414.0.
Temporal Representation:	Monitored annually since 1977. Most recent ten years of available SMW data for the Pacific Grove sampling location available, from 1988 to 1997.

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 (SWAMP, 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.

Region 3

Water Segment: Monterey Bay South (Coastline)

Pollutant: Cadmium

Decision: Do Not 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. None of the 28 tissue samples exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. None of the 28 tissue samples exceeded the OEHHA screening value for total cadmium and this does not 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 not be placed on the section 303(d) list because applicable water quality standards for the pollutant are not exceeded.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

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

Matrix: Tissue

Evaluation Guideline: OEHHA Screening Guideline = 3.0 mg/kg (Brodberg and Pollock, 1999).

Data Used to Assess Water Quality: All 28 samples did not exceed the OEHHA screening value (SMWP, 2004). All six samples were well below the USEPA's screening value for tissue.

Spatial Representation:	Samples were monitored at the Pacific Grove CA State Mussell Watch station.
Temporal Representation:	Samples were monitored annually from 1977 to 2003. All the data was used for all the years. Each year had one sampling data point, except for years 1977 and 1978, which had two sampling points.
Data Quality Assessment:	All data collected by CA State Mussel Watch program following their QA.

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.

Region 3

Water Segment: Monterey Bay South (Coastline)

Pollutant: Chlordane

Decision: Do Not 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. 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 against 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. None of the ten samples exceeded the OEHHA screening values for fish consumption and this does not 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 not be placed on the section 303(d) list because applicable water quality standards for the pollutant are not exceeded.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

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

Matrix: Tissue

Evaluation Guideline: OEHHA screening values for fish consumption.

Data Used to Assess Water Quality: A total of ten samples were collected; none exceed the OEHHA screening value (SWAMP, 2004).

Spatial Representation:	All samples were collected from the Pacific Grove sampling station.
Temporal Representation:	Data include the most recent ten years of SMW data; years 1988-1997.

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), (SWAMP, 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.
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 1982 through 1997.

Region 3

Water Segment: Monterey Bay South (Coastline)

Pollutant: Chromium (total)

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for listing under sections 2.1, 3.5 .of the Listing Policy. Under section 3.5 a single line of evidence is necessary to assess listing status.

Two lines of evidence are available in the administrative record to assess this pollutant. Based on section 3.5, chromium exceedences cannot be determined because there is no applicable water quality standards for this pollutant in tissue.

Based on the readily available data and information, the weight of evidence indicates that there is not 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. A guideline for total chromium is not available that complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be placed on the section 303(d) list because there are no applicable water quality standards for the pollutant.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

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

Matrix: -N/A

Evaluation Guideline: Screening values were based on MIS (Median International Standard. MIS values 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 are no longer considered valid; currently an acceptable criteria for chromium in tissue does not exist.
Data Used to Assess Water Quality:	None of the six samples exceeded the Cal-OEHHA screening value (SWAMP, 2004).
Spatial Representation:	Pacific Grove SMW station.
Temporal Representation:	Monitored annually since 1977. Most recent ten years of available SMW data for the Pacific Grove sampling location available.

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 (SWAMP, 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.

Region 3

Water Segment: Monterey Bay South (Coastline)

Pollutant: DDT

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under section 3.4of the Listing Policy. Under section 3.4a single line of evidence is necessary to assess listing status.

Two lines 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 against 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. None of the ten samples exceeded the OEHHA screening values for fish consumption and this does not 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 not be placed on the section 303(d) list because applicable water quality standards for the pollutant are not exceeded.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

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

Matrix: Tissue

Evaluation Guideline: OEHHA screening values for fish consumption.

Data Used to Assess Water Quality: A total of ten samples were collected; none exceeded the OEHHA screening value (SWAMP, 2004).

Spatial Representation:	All samples were collected from the Pacific Grove sampling station.
Temporal Representation:	Data include the most recent ten years of SMW data; years 1988-1997.
QA/QC Equivalent:	All data collected by State Mussel Watch program follows their QA.

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), (SWAMP, 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.
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 1982 through 1997.

Region 3

Water Segment: Monterey Bay South (Coastline)

Pollutant: Dieldrin

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under section 3.4 of the Listing Policy. Under section 3.4 a single line of evidence is necessary to assess listing status.

Two lines 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 against 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. None of the ten samples exceeded the OEHHA screening values for fish consumption and this does not 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 not be placed on the section 303(d) list because applicable water quality standards for the pollutant are not exceeded.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

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

Matrix: Tissue

Evaluation Guideline: OEHHA screening values for fish consumption.

Data Used to Assess Water Quality: A total of ten samples were collected; none exceeded the OEHHA screening value (SWAMP, 2004).

Spatial Representation:	All samples were collected from the Pacific Grove sampling station.
Temporal Representation:	Data include the most recent ten years of SMW data; years 1988-1997.
QA/QC Equivalent:	All data collected by State Mussel Watch program follows their QA.

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), (SWAMP, 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.
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 1982 through 1997.

Region 3

Water Segment: Monterey Bay South (Coastline)

Pollutant: Endosulfan

Decision: Do Not 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. 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 against 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. None of the ten samples exceeded the OEHHA screening values for fish consumption; six were non-detects and this does not 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 not be placed on the section 303(d) list because applicable water quality standards for the pollutant are not exceeded.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

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

Matrix: Tissue

Evaluation Guideline: OEHHA screening values for fish consumption.

Data Used to Assess Water Quality: A total of ten samples were collected; none exceeded the OEHHA screening value and six were non-detects (SMWP, 2004).

Spatial Representation:	All samples were collected from the Pacific Grove sampling station.
Temporal Representation:	Data include the most recent ten years of SMW data; years 1988-1997.
QA/QC Equivalent:	All data collected by State Mussel Watch program follows their QA.

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.
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 1982 through 1997.

Region 3

Water Segment: Monterey Bay South (Coastline)

Pollutant: Enterococcus

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under sections 3.3, of the Listing Policy. Under section 3.3 a single line of evidence is necessary to assess listing status.

Three types of evidence based on different evaluation criteria are available in the administrative record to assess this pollutant. Based on section 3.3 an insufficient number of samples exceed the enterococcus water quality guidelines.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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 use of AB411 as evaluation criteria complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Ten of 229 samples exceeded the 35 MPN/100 ml criteria, 12 of 337 samples exceeded the 104MPN/100 ml and these do not exceed the allowable frequency listed in Table 3.1 of the Listing Policy. Six other lines of evidence document health advisories posted along county beaches from 1999 to 2004.
5. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

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

Matrix: Water

Evaluation Guideline: AB411: Based on the mean of the logarithms of the results of at least five

	weekly samples during any 30-day sampling period, the density of Enterococcus in water from any sampling station at a public beach or public water contact sports area, shall not exceed 35 MPN/100 ml.
Data Used to Assess Water Quality:	Monterey County collected 113 bacteria samples from 2001 through 2004 at Del Monte Beach. Thirty-day geomean concentrations of Enterococcus were calculated. Four of 77 geomeans were in exceedance of the criteria (CCRWQCB, 2004d).
Spatial Representation:	Del Monte Beach located between Monterey commercial wharf and Ocean Forest Condominiums located at Camino Aguajito and Del Monte Avenue in the city of Monterey.
Temporal Representation:	Samples were collected from 4/2/2001 through 6/7/2004. As an AB411 beach, Del Monte Beach was sampled weekly April 1 - October 31 and monthly November 1 - March 30.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP.

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
Matrix:	Water
Evaluation Guideline:	AB411: The single sample maximum criterion for Enterococcus in marine waters = 104 MPN/100 ml.
Data Used to Assess Water Quality:	Monterey County collected 113 bacteria samples from 2001 through 2004 at Del Monte Beach. Seven of 113 samples were in exceedance of the single sample criterion for Enterococcus (CCRWQCB, 2004d).
Spatial Representation:	Del Monte Beach located between Monterey commercial wharf and Ocean Forest Condominiums located at Camino Aguajito and Del Monte Avenue in the city of Monterey.
Temporal Representation:	Samples were collected from 4/2/2001 through 6/7/2004. As an AB411 beach, Del Monte Beach was sampled weekly April 1 - October 31 and monthly November 1 - March 30.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
Matrix:	Water
Evaluation Guideline:	AB411: Based on the mean of the logarithms of the results of at least five weekly samples during any 30-day sampling period, the density of Enterococcus in water from any sampling station at a public beach or public water contact sports area, shall not exceed 35 MPN/100 ml.

Data Used to Assess Water Quality:	Monterey County collected 107 bacteria samples from 2001 through 2004 at San Carlos Beach(CCRWQCB, 2004d). Thirty-day geo mean concentrations of Enterococcus were calculated. One of 75 geomeans were in exceedance of the criteria.
Spatial Representation:	San Carlos Beach located between Coast Guard Pier and Monterey Plaza Hotel in the City of Monterey.
Temporal Representation:	Samples were collected from 4/2/2001 through 6/7/2004. As an AB411 beach, San Carlos Beach was sampled weekly April 1 - October 31 and monthly November 1 - March 30.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP.

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
Matrix:	Water
Evaluation Guideline:	AB411: The single sample maximum criterion for Enterococcus in marine waters = 104 MPN/100 ml.
Data Used to Assess Water Quality:	Monterey County collected 112 bacteria samples from 2001 through 2004 at San Carlos Beach. Three of 112 samples were in exceedance of the single sample criterion for Enterococcus (CDRWQCB, 2004d).
Spatial Representation:	San Carlos Beach located between Coast Guard Pier and Monterey Plaza Hotel in the City of Monterey.
Temporal Representation:	Samples were collected from 4/2/2001 through 6/7/2004. As an AB411 beach, Monterey Beach Hotel was sampled weekly April 1 - October 31 and monthly November 1 - March 30.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP.

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
Matrix:	Water
Evaluation Guideline:	AB411: Based on the mean of the logarithms of the results of at least five weekly samples during any 30-day sampling period, the density of Enterococcus in water from any sampling station at a public beach or public water contact sports area, shall not exceed 35 MPN/100 ml.
Data Used to Assess Water Quality:	Monterey County collected 107 bacteria samples from 2001 through 2004 at Lovers Point Beach. Thirty-day mean concentrations of Enterococcus were calculated. Five of 77 means were in exceedance of the criteria (CCRWQCB, 2004d).
Spatial Representation:	Lovers Point Beach located at Lovers Point Park in the City of Pacific Grove.
Temporal Representation:	Samples were collected from 4/2/2001 through 6/7/2004. As an AB411 beach, Lovers Point Beach was sampled weekly April 1 - October 31 and

	monthly November 1 - March 30.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP.

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
Matrix:	Water
Evaluation Guideline:	AB411: The single sample maximum criterion for Enterococcus in marine waters = 104 MPN/100 ml.
Data Used to Assess Water Quality:	Monterey County collected 112 bacteria samples from 2001 through 2004 at Lovers Point Beach. Two of 112 samples were in exceedance of the single sample criterion for Enterococcus (CCRWQCB, 2004d).
Spatial Representation:	Lovers Point Beach located at Lovers Point Park in the City of Pacific Grove
Temporal Representation:	Samples were collected from 4/2/2001 through 6/7/2004. As an AB411 beach, Lovers Point Beach was sampled weekly April 1 - October 31 and monthly November 1 - March 30.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP.

Line of Evidence	Health Advisories
Beneficial Use	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
Non-Numeric Objective:	Assembly Bill 411: Weekly monitoring is required from April to October at all beaches with more than 50,000 annual visitors or at beaches located in areas adjacent to storm drains that flow during the summer. Some counties continue testing year round. Weekly samples must be tested for three indicator organisms: total coliform, fecal coliform, and enterococcus. Beaches that fail to meet the state's criteria for any one of the three indicators are to be posted with conspicuous warning signs to notify the public of health risks associated with swimming in these areas. Closings and advisories are issued on a discretionary basis. AB 411 requires the State Water Resources Control Board (SWRCB) to post monthly beach data from coastal counties throughout the state. The surveys list beach warnings, beach closures, and rain advisories resulting from bacterial contamination.
Data Used to Assess Water Quality:	Monterey County posted 15 advisories and closures for Del Monte Beach from 1999 to 2004 (CCRWQCB, 2004d). There were 2 closures (2002 and 2004) for sewage spills and 13 advisories & warnings for high bacteria (total, fecal, and Enterococcus), total/fecal bacteria ratio exceedances, and log mean exceedances (1999-2004). Each advisory/closure was posted for several days.
Spatial Representation:	Del Monte Beach located between Monterey commercial wharf and Ocean Forest Condominiums located at Camino Aguajito and Del Monte Avenue in the city of Monterey.

Temporal Representation:	Postings and closures are from 1999 to 2004.

Line of Evidence	Health Advisories
Beneficial Use	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
Non-Numeric Objective:	Assembly Bill 411: Weekly monitoring is required from April to October at all beaches with more than 50,000 annual visitors or at beaches located in areas adjacent to storm drains that flow during the summer. Some counties continue testing year round. Weekly samples must be tested for three indicator organisms: total coliform, fecal coliform, and enterococcus. Beaches that fail to meet the state's criteria for any one of the three indicators are to be posted with conspicuous warning signs to notify the public of health risks associated with swimming in these areas. Closings and advisories are issued on a discretionary basis. AB 411 requires the State Water Resources Control Board (SWRCB) to post monthly beach data from coastal counties throughout the state. The surveys list beach warnings, beach closures, and rain advisories resulting from bacterial contamination.
Data Used to Assess Water Quality:	Monterey County posted Rain Advisories for all beaches in the county on 15 occasions from 2000 to 2004(CCRWQCB, 2004d). Each advisory was posted for several days surrounding rain events in the county.
Spatial Representation:	The rain advisories are issued for all beaches in Monterey County, including Del Monte Beach.
Temporal Representation:	Rain advisories for the beaches were issued from February 2000 through November 2004.

Line of Evidence	Health Advisories
Beneficial Use	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
Non-Numeric Objective:	Assembly Bill 411: Weekly monitoring is required from April to October at all beaches with more than 50,000 annual visitors or at beaches located in areas adjacent to storm drains that flow during the summer. Some counties continue testing year round. Weekly samples must be tested for three indicator organisms: total coliform, fecal coliform, and enterococcus. Beaches that fail to meet the state's criteria for any one of the three indicators are to be posted with conspicuous warning signs to notify the public of health risks associated with swimming in these areas. Closings and advisories are issued on a discretionary basis. AB 411 requires the State Water Resources Control Board (SWRCB) to post monthly beach data from coastal counties throughout the state. The surveys list beach warnings, beach closures, and rain advisories resulting from bacterial contamination.
Data Used to Assess Water Quality:	Monterey County posted Rain Advisories for all beaches in the county on 15 occasions from 2000 to 2004 (CCRWQCB, 2004d). Each advisory was posted for several days surrounding rain events in the county.
Spatial Representation:	The rain advisories are issued for all beaches in Monterey County,

	including San Carlos Beach.
Temporal Representation:	Rain advisories for the beaches were issued from February 2000 through November 2004.

Line of Evidence	Health Advisories
Beneficial Use	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
Non-Numeric Objective:	Assembly Bill 411: Weekly monitoring is required from April to October at all beaches with more than 50,000 annual visitors or at beaches located in areas adjacent to storm drains that flow during the summer. Some counties continue testing year round. Weekly samples must be tested for three indicator organisms: total coliform, fecal coliform, and enterococcus. Beaches that fail to meet the state's criteria for any one of the three indicators are to be posted with conspicuous warning signs to notify the public of health risks associated with swimming in these areas. Closings and advisories are issued on a discretionary basis. AB 411 requires the State Water Resources Control Board (SWRCB) to post monthly beach data from coastal counties throughout the state. The surveys list beach warnings, beach closures, and rain advisories resulting from bacterial contamination.
Data Used to Assess Water Quality:	Monterey County posted 9 advisories for San Carlos Beach from 1999 to 2004. Advisories were for high bacteria (fecal and enterococcus) and total/fecal bacteria ratio exceedances (CCRWQCB, 2004d).
Spatial Representation:	San Carlos Beach located between Coast Guard Pier and Monterey Plaza Hotel in the City of Monterey.
Temporal Representation:	Postings and closures are from 1999 to 2004.

Line of Evidence	Health Advisories
Beneficial Use	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
Non-Numeric Objective:	Assembly Bill 411: Weekly monitoring is required from April to October at all beaches with more than 50,000 annual visitors or at beaches located in areas adjacent to storm drains that flow during the summer. Some counties continue testing year round. Weekly samples must be tested for three indicator organisms: total coliform, fecal coliform, and enterococcus. Beaches that fail to meet the state's criteria for any one of the three indicators are to be posted with conspicuous warning signs to notify the public of health risks associated with swimming in these areas. Closings and advisories are issued on a discretionary basis. AB 411 requires the State Water Resources Control Board (SWRCB) to post monthly beach data from coastal counties throughout the state. The surveys list beach warnings, beach closures, and rain advisories resulting from bacterial contamination.

Data Used to Assess Water Quality:	Monterey County posted Rain Advisories for all beaches in the county on 15 occasions from 2000 to 2004. Each advisory was posted for several days surrounding rain events in the county (CCRWQCB, 2004d).
Spatial Representation:	The rain advisories are issued for all beaches in Monterey County, including Lovers Point Beach.
Temporal Representation:	Rain advisories for the beaches were issued from February 2000 through November 2004.

Line of Evidence	Health Advisories
Beneficial Use	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
Non-Numeric Objective:	Assembly Bill 411: Weekly monitoring is required from April to October at all beaches with more than 50,000 annual visitors or at beaches located in areas adjacent to storm drains that flow during the summer. Some counties continue testing year round. Weekly samples must be tested for three indicator organisms: total coliform, fecal coliform, and enterococcus. Beaches that fail to meet the state's criteria for any one of the three indicators are to be posted with conspicuous warning signs to notify the public of health risks associated with swimming in these areas. Closings and advisories are issued on a discretionary basis. AB 411 requires the State Water Resources Control Board (SWRCB) to post monthly beach data from coastal counties throughout the state. The surveys list beach warnings, beach closures, and rain advisories resulting from bacterial contamination.
Data Used to Assess Water Quality:	Monterey County posted 23 advisories or closures for Lovers Point Beach. It was closed 11 times for sewage spills and all others (advisories and postings) were for high bacteria (fecal and enterococcus), total/fecal bacteria ratio exceedances, and log mean exceedances (CCRWQCB, 2004d).
Spatial Representation:	Lovers Point Beach located at Lovers Point Park in the City of Pacific Grove.
Temporal Representation:	Postings and closures are from 1999 to 2004.

Region 3

Water Segment: Monterey Bay South (Coastline)

Pollutant: Lindane

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under section 3.4 of the Listing Policy. Under section 3.4 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. 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 against 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. None of the ten samples exceeded the OEHHA screening values for fish consumption; eight were non-detects and this does not 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 not be placed on the section 303(d) list because applicable water quality standards for the pollutant are not exceeded.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

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

Matrix: Tissue

Evaluation Guideline: OEHHA screening values for fish consumption.

Data Used to Assess Water Quality: A total of ten samples were collected; none exceeded the OEHHA screening value and eight were non-detects (SMWP, 2004).

Spatial Representation:	All samples were collected from the Pacific Grove sampling station.
Temporal Representation:	Data include the most recent ten years of SMW data; years 1988-1997.
QA/QC Equivalent:	All data collected by State Mussel Watch program follows their QA.

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.
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 1982 through 1997.

Region 3

Water Segment: Monterey Bay South (Coastline)

Pollutant: Selenium

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under section 3.4 of the Listing Policy. Under section 3.4 a single line of evidence is necessary to assess listing status.

Two lines 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 against 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. None of the six samples exceeded the OEHHA and USEPA screening values for fish consumption and this does not exceed the allowable frequency listed in Table 3.1 of the Listing Policy.
3. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

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

Matrix: Tissue

Evaluation Guideline: OEHHA and USEPA screening values for fish consumption.

Data Used to Assess Water Quality: None of the six samples exceeded the Cal-OEHHA or USEPA screening value (CVRWQCB, 2004M).

Spatial Representation:	Pacific Grove SMW station.
Temporal Representation:	Monitored annually since 1977. Most recent ten years of available SMW data for the Pacific Grove sampling location available.

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.

Region 3

Water Segment: Monterey Bay South (Coastline)

Pollutant: Total Coliform

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under section 3.3 of the Listing Policy. Under section 3.3 a single line of evidence is necessary to assess listing status.

Twenty- three lines of evidence are available in the administrative record to access this pollutant. Nine lines of evidence document Health Advisory postings along the Monterey beaches at various intervals during 1999 and 2004. Five numeric lines of evidence show 53 of 320 samples exceeded the median total coliform concentration of 70 MPN/100ml to protect shell fish harvesting, four lines of evidence showed none of 302 samples exceeding the AB--411 30-day log mean of 1,000 MPN/100 ml concentration for the protection of public beaches and water contact sports areas, and five lines of evidence showed none of 458 samples exceeding the AB-411 single maximum criterion concentration for total coliform.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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 guideline used for median total coliform concentration 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. Fifty-three of 320 samples exceeded the median total coliform concentration, and these do not 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 not be placed on the section 303(d) list because applicable water quality standards for the pollutant are not exceeded.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SH - Shellfish Harvesting
Matrix:	Water
Water Quality Objective/ Water Quality Criterion:	Central Coast RWQCB Basin Plan: At all areas where shellfish may be harvested for human consumption, the median total coliform concentration throughout the water column for any 30-day period shall not exceed 70/100 ml, nor shall more than ten percent of the samples collected during any 30-day period exceed 230/100 ml for a five-tube decimal dilution test or 330/100 ml when a three-tube decimal dilution test is used.
Data Used to Assess Water Quality:	Monterey County collected 107 bacteria samples from 2001 through 2004 at Monterey Beach Hotel (CCRWQCB, 2004d). Thirty-day median concentrations of total coliform were calculated. Six of 75 medians were in exceedance of the criteria.
Spatial Representation:	Monterey Beach Hotel - Highway 218 at Monterey Bay adjacent to the Monterey Beach Hotel.
Temporal Representation:	Samples were collected from 4/2/2001 through 6/7/2004. As an AB411 beach, Monterey Beach Hotel was sampled weekly April 1 - October 31 and monthly November 1 - March 30.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP.

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SH - Shellfish Harvesting
Matrix:	Water
Evaluation Guideline:	AB411: Based on the mean of the logarithms of the results of at least five weekly samples during any 30-day sampling period, the density of total coliform in water from any sampling station at a public beach or public water contact sports area, shall not exceed 1,000 MPN/100 ml.
Data Used to Assess Water Quality:	Monterey County collected 107 bacteria samples from 2001 through 2004 at Monterey Beach Hotel (CCRWQCB, 2004d). Thirty-day mean concentrations of total coliform were calculated. None of the 73 means were in exceedance of the criteria.
Spatial Representation:	Monterey Beach Hotel - Highway 218 at Monterey Bay adjacent to the Monterey Beach Hotel.
Temporal Representation:	Samples were collected from 4/2/2001 through 6/7/2004. As an AB411 beach, Monterey Beach Hotel was sampled weekly April 1 - October 31 and monthly November 1 - March 30.

Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP.

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SH - Shellfish Harvesting
Matrix:	Water
Evaluation Guideline:	AB411: The single sample maximum criterion for total coliform in marine waters = 10,000 MPN/100 ml.
Data Used to Assess Water Quality:	Monterey County collected 107 bacteria samples from 2001 through 2004 at Monterey Beach Hotel (CCRWQCB, 2004d). None of the 107 samples were in exceedance of the single sample criterion for total coliform.
Spatial Representation:	Monterey Beach Hotel - Highway 218 at Monterey Bay adjacent to the Monterey Beach Hotel.
Temporal Representation:	Samples were collected from 4/2/2001 through 6/7/2004. As an AB411 beach, Monterey Beach Hotel was sampled weekly April 1 - October 31 and monthly November 1 - March 30.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP.

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SH - Shellfish Harvesting
Matrix:	Water
Water Quality Objective/ Water Quality Criterion:	Central Coast RWQCB Basin Plan: At all areas where shellfish may be harvested for human consumption, the median total coliform concentration throughout the water column for any 30-day period shall not exceed 70/100 ml, nor shall more than ten percent of the samples collected during any 30-day period exceed 230/100 ml for a five-tube decimal dilution test or 330/100 ml when a three-tube decimal dilution test is used.
Data Used to Assess Water Quality:	Monterey County collected 113 bacteria samples from 2001 through 2004 at Del Monte Beach. Thirty-day median concentrations of total coliform were calculated. Eleven of 79 medians were in exceedance of the criteria (CCRWQCB, 2004d).
Spatial Representation:	Del Monte Beach located between Monterey commercial wharf and Ocean Forest Condominiums located at Camino Aguajito and Del Monte Avenue in the city of Monterey.
Temporal Representation:	Samples were collected from 4/2/2001 through 6/7/2004. As an AB411 beach, Del Monte Beach was sampled weekly April 1 - October 31 and monthly November 1 - March 30.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP.

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SH - Shellfish Harvesting
Matrix:	Water
Evaluation Guideline:	AB411: The single sample maximum criterion for total coliform in marine waters = 10,000 MPN/100 ml.
Data Used to Assess Water Quality:	Monterey County collected 113 bacteria samples from 2001 through 2004 at Del Monte Beach. One of 113 samples were in exceedance of the single sample criterion for total coliform (CCRWQCB, 2004d).
Spatial Representation:	Del Monte Beach located between Monterey commercial wharf and Ocean Forest Condominiums located at Camino Aguajito and Del Monte Avenue in the city of Monterey.
Temporal Representation:	Samples were collected from 4/2/2001 through 6/7/2004. As an AB411 beach, Del Monte Beach was sampled weekly April 1 - October 31 and monthly November 1 - March 30.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP.

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SH - Shellfish Harvesting
Matrix:	Water
Evaluation Guideline:	AB411: Based on the mean of the logarithms of the results of at least five weekly samples during any 30-day sampling period, the density of total coliform in water from any sampling station at a public beach or public water contact sports area, shall not exceed 1,000 MPN/100 ml.
Data Used to Assess Water Quality:	Monterey County collected 107 bacteria samples from 2001 through 2004 at Del Monte Beach. Thirty-day mean concentrations of total coliform were calculated. None of the 77 means were in exceedance of the criteria (CCRWQCB, 2004d).
Spatial Representation:	Del Monte Beach located between Monterey commercial wharf and Ocean Forest Condominiums located at Camino Aguajito and Del Monte Avenue in the city of Monterey.
Temporal Representation:	Samples were collected from 4/2/2001 through 6/7/2004. As an AB411 beach, Del Monte Beach was sampled weekly April 1 - October 31 and monthly November 1 - March 30.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP.

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	R1 - Water Contact Recreation, R2 - Non-Contact Recreation

Matrix:	Water
Water Quality Objective/ Water Quality Criterion:	Central Coast RWQCB Basin Plan: At all areas where shellfish may be harvested for human consumption, the median total coliform concentration throughout the water column for any 30-day period shall not exceed 70/100 ml, nor shall more than ten percent of the samples collected during any 30-day period exceed 230/100 ml for a five-tube decimal dilution test or 330/100 ml when a three-tube decimal dilution test is used.
Data Used to Assess Water Quality:	Monterey County collected 112 bacteria samples from 2001 through 2004 at San Carlos Beach. 30-day median concentrations of total coliform were calculated. Fifteen of 75 medians were in exceedance of the criteria (CCRWQCB, 2004d).
Spatial Representation:	San Carlos Beach located between Coast Guard Pier and Monterey Plaza Hotel in the City of Monterey.
Temporal Representation:	Samples were collected from 4/2/2001 through 6/7/2004. As an AB411 beach, San Carlos Beach was sampled weekly April 1 - October 31 and monthly November 1 - March 30.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
Matrix:	Water
Evaluation Guideline:	AB411: Based on the mean of the logarithms of the results of at least five weekly samples during any 30-day sampling period, the density of total coliform in water from any sampling station at a public beach or public water contact sports area, shall not exceed 1,000 MPN/100 ml.
Data Used to Assess Water Quality:	Monterey County collected 107 bacteria samples from 2001 through 2004 at San Carlos Beach. 30-day mean concentrations of total coliform were calculated. None of the 75 means were in exceedance of the criteria (CCRWQCB, 2004d).
Spatial Representation:	San Carlos Beach located between Coast Guard Pier and Monterey Plaza Hotel in the City of Monterey.
Temporal Representation:	Samples were collected from 4/2/2001 through 6/7/2004. As an AB411 beach, San Carlos Beach was sampled weekly April 1 - October 31 and monthly November 1 - March 30.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
Matrix:	Water
Evaluation Guideline:	AB411: The single sample maximum criterion for total coliform in marine

	waters = 10,000 MPN/100 ml.
Data Used to Assess Water Quality:	Monterey County collected 112 bacteria samples from 2001 through 2004 at San Carlos Beach. None of the 112 samples were in exceedance of the single sample criterion for total coliform (CCRWQCB, 2004d).
Spatial Representation:	San Carlos Beach located between Coast Guard Pier and Monterey Plaza Hotel in the City of Monterey.
Temporal Representation:	Samples were collected from 4/2/2001 through 6/7/2004. As an AB411 beach, Monterey Beach Hotel was sampled weekly April 1 - October 31 and monthly November 1 - March 30.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SH - Shellfish Harvesting
Matrix:	Water
Water Quality Objective/ Water Quality Criterion:	Central Coast RWQCB Basin Plan: At all areas where shellfish may be harvested for human consumption, the median total coliform concentration throughout the water column for any 30-day period shall not exceed 70/100 ml, nor shall more than ten percent of the samples collected during any 30-day period exceed 230/100 ml for a five-tube decimal dilution test or 330/100 ml when a three-tube decimal dilution test is used.
Data Used to Assess Water Quality:	Monterey County collected 112 bacteria samples from 2001 through 2004 at Lovers Point Beach. Thirty-day median concentrations of total coliform were calculated. Seventeen of the 77 medians were in exceedance of the criteria (CCRWQCB, 2004d).
Spatial Representation:	Lovers Point Beach located at Lovers Point Park in the City of Pacific Grove.
Temporal Representation:	Samples were collected from 4/2/2001 through 6/7/2004. As an AB411 beach, Lovers Point Beach was sampled weekly April 1 - October 31 and monthly November 1 - March 30.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP.

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SH - Shellfish Harvesting
Matrix:	Water
Evaluation Guideline:	AB411: Based on the mean of the logarithms of the results of at least five weekly samples during any 30-day sampling period, the density of total coliform in water from any sampling station at a public beach or public water contact sports area, shall not exceed 1,000 MPN/100 ml.

Data Used to Assess Water Quality:	Monterey County collected 107 bacteria samples from 2001 through 2004 at Lovers Point Beach. Thirty-day mean concentrations of total coliform were calculated. None of the 77 means were in exceedance of the criteria (CCRWQCB, 2004d).
Spatial Representation:	Lovers Point Beach located at Lovers Point Park in the City of Pacific Grove.
Temporal Representation:	Samples were collected from 4/2/2001 through 6/7/2004. As an AB411 beach, Lovers Point Beach was sampled weekly April 1 - October 31 and monthly November 1 - March 30.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP.

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SH - Shellfish Harvesting
Matrix:	Water
Evaluation Guideline:	AB411: The single sample maximum criterion for total coliform in marine waters = 10,000 MPN/100 ml.
Data Used to Assess Water Quality:	Monterey County collected 112 bacteria samples from 2001 through 2004 at Lovers Point Beach. None of the 112 samples were in exceedance of the single sample criterion for total coliform (CCRWQCB, 2004d).
Spatial Representation:	Lovers Point Beach located at Lovers Point Park in the City of Pacific Grove
Temporal Representation:	Samples were collected from 4/2/2001 through 6/7/2004. As an AB411 beach, Lovers Point Beach was sampled weekly April 1 - October 31 and monthly November 1 - March 30.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SH - Shellfish Harvesting
Matrix:	Water
Evaluation Guideline:	AB411: The single sample maximum criterion for total coliform in marine waters = 10,000 MPN/100 ml.
Data Used to Assess Water Quality:	Monterey County collected monthly samples at Seaside State Beach in 2003 and 2004. None of the 14 single samples were in exceedance of the criterion (CCRWQCB, 2004d).
Spatial Representation:	Seaside State Beach located west of Seaside City Industrial Wastewater Treatment plant, City of Seaside.

Temporal Representation:	Samples were collected monthly from 2/4/2003 through 6/1/2004.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP.

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SH - Shellfish Harvesting
Matrix:	Water
Water Quality Objective/ Water Quality Criterion:	Central Coast RWQCB Basin Plan: At all areas where shellfish may be harvested for human consumption, the median total coliform concentration throughout the water column for any 30-day period shall not exceed 70/100 ml, nor shall more than ten percent of the samples collected during any 30-day period exceed 230/100 ml for a five-tube decimal dilution test or 330/100 ml when a three-tube decimal dilution test is used.
Data Used to Assess Water Quality:	Monterey County collects monthly bacteria samples at Seaside State Beach. Although because samples are monthly there is only 1 sample in each 30-day period, there is no limit as to how many samples must be included in the 30-day median total coliform concentration. A ten percent total coliform concentration could not be calculated either, so this criterion was used as a single (monthly) sample comparison as well. Four of 14 samples exceeded the criteria of 70/100 ml and 2 of 14 samples exceeded the criteria of 230/100 ml (CCRWQCB, 2004d).
Spatial Representation:	Seaside State Beach located west of Seaside City Industrial Wastewater Treatment plant, City of Seaside.
Temporal Representation:	Samples were collected monthly from 2/4/2003 through 6/1/2004.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP.

Line of Evidence	Health Advisories
Beneficial Use	R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SH - Shellfish Harvesting
Non-Numeric Objective:	Assembly Bill 411: Weekly monitoring is required from April to October at all beaches with more than 50,000 annual visitors or at beaches located in areas adjacent to storm drains that flow during the summer. Some counties continue testing year round. Weekly samples must be tested for three indicator organisms: total coliform, fecal coliform, and enterococcus. Beaches that fail to meet the state's criteria for any one of the three indicators are to be posted with conspicuous warning signs to notify the public of health risks associated with swimming in these areas. Closings and advisories are issued on a discretionary basis. AB 411 requires the State Water Resources Control Board (SWRCB) to post monthly beach data from coastal counties throughout the state. The surveys list beach warnings, beach closures, and rain advisories resulting from bacterial contamination.

Data Used to Assess Water Quality:	Monterey County posted advisories for Monterey Beach Hotel on 2 occasions (in 2001 and 2004). Each advisory was posted for several days (CCRWQCB, 2004d). The posting in 2001 was for high fecal coliform and the posting in 2004 was for high enterococcus.
Spatial Representation:	Monterey Beach Hotel - Highway 218 at Monterey Bay adjacent to the Monterey Beach Hotel.
Temporal Representation:	Advisories posted in 2001 and 2004.

Line of Evidence	Health Advisories
Beneficial Use	R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SH - Shellfish Harvesting
Non-Numeric Objective:	Assembly Bill 411: Weekly monitoring is required from April to October at all beaches with more than 50,000 annual visitors or at beaches located in areas adjacent to storm drains that flow during the summer. Some counties continue testing year round. Weekly samples must be tested for three indicator organisms: total coliform, fecal coliform, and enterococcus. Beaches that fail to meet the state's criteria for any one of the three indicators are to be posted with conspicuous warning signs to notify the public of health risks associated with swimming in these areas. Closings and advisories are issued on a discretionary basis. AB 411 requires the State Water Resources Control Board (SWRCB) to post monthly beach data from coastal counties throughout the state. The surveys list beach warnings, beach closures, and rain advisories resulting from bacterial contamination.
Data Used to Assess Water Quality:	Monterey County posted Rain Advisories for all beaches in the county on 15 occasions from 2000 to 2004. Each advisory was posted for several days surrounding rain events in the county (CCRWQCB, 2004d).
Spatial Representation:	The rain advisories are issued for all beaches in Monterey County, including Monterey Beach Hotel.
Temporal Representation:	Rain advisories for the beaches were issued from February 2000 through November 2004.

Line of Evidence	Health Advisories
Beneficial Use	R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SH - Shellfish Harvesting
Non-Numeric Objective:	Assembly Bill 411: Weekly monitoring is required from April to October at all beaches with more than 50,000 annual visitors or at beaches located in areas adjacent to storm drains that flow during the summer. Some counties continue testing year round. Weekly samples must be tested for three indicator organisms: total coliform, fecal coliform, and enterococcus. Beaches that fail to meet the state's criteria for any one of the three indicators are to be posted with conspicuous warning signs to notify the public of health risks associated with swimming in these areas. Closings and advisories are issued on a discretionary basis. AB 411 requires the State Water Resources Control Board (SWRCB) to post monthly beach data from

	coastal counties throughout the state. The surveys list beach warnings, beach closures, and rain advisories resulting from bacterial contamination.
Data Used to Assess Water Quality:	Monterey County posted 15 advisories and closures for Del Monte Beach from 1999 to 2004. There were 2 closures (2002 and 2004) for sewage spills and 13 advisories & warnings for high bacteria (total, fecal, and Enterococcus), total/fecal bacteria ratio exceedances, and log mean exceedances (1999-2004). Each advisory/closure was posted for several days (CCRWQCB, 2004d).
Spatial Representation:	Del Monte Beach located between Monterey commercial wharf and Ocean Forest Condominiums located at Camino Aguajito and Del Monte Avenue in the city of Monterey.
Temporal Representation:	Postings and closures are from 1999 to 2004.

Line of Evidence	Health Advisories
Beneficial Use	R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SH - Shellfish Harvesting
Non-Numeric Objective:	Assembly Bill 411: Weekly monitoring is required from April to October at all beaches with more than 50,000 annual visitors or at beaches located in areas adjacent to storm drains that flow during the summer. Some counties continue testing year round. Weekly samples must be tested for three indicator organisms: total coliform, fecal coliform, and enterococcus. Beaches that fail to meet the state's criteria for any one of the three indicators are to be posted with conspicuous warning signs to notify the public of health risks associated with swimming in these areas. Closings and advisories are issued on a discretionary basis. AB 411 requires the State Water Resources Control Board (SWRCB) to post monthly beach data from coastal counties throughout the state. The surveys list beach warnings, beach closures, and rain advisories resulting from bacterial contamination.
Data Used to Assess Water Quality:	Monterey County posted Rain Advisories for all beaches in the county on 15 occasions from 2000 to 2004. Each advisory was posted for several days surrounding rain events in the county (CCRWQCB, 2004d).
Spatial Representation:	The rain advisories are issued for all beaches in Monterey County, including Del Monte Beach.
Temporal Representation:	Rain advisories for the beaches were issued from February 2000 through November 2004.

Line of Evidence	Health Advisories
Beneficial Use	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
Non-Numeric Objective:	Assembly Bill 411: Weekly monitoring is required from April to October at all beaches with more than 50,000 annual visitors or at beaches located in areas adjacent to storm drains that flow during the summer. Some counties continue testing year round. Weekly samples must be tested for three indicator

	organisms: total coliform, fecal coliform, and enterococcus. Beaches that fail to meet the state's criteria for any one of the three indicators are to be posted with conspicuous warning signs to notify the public of health risks associated with swimming in these areas. Closings and advisories are issued on a discretionary basis. AB 411 requires the State Water Resources Control Board (SWRCB) to post monthly beach data from coastal counties throughout the state. The surveys list beach warnings, beach closures, and rain advisories resulting from bacterial contamination.
Data Used to Assess Water Quality:	Monterey County posted 9 advisories for San Carlos Beach from 1999 to 2004. Advisories were for high bacteria (fecal and enterococcus) and total/fecal bacteria ratio exceedances (CCRWQCB, 2004d).
Spatial Representation:	San Carlos Beach located between Coast Guard Pier and Monterey Plaza Hotel in the City of Monterey.
Temporal Representation:	Postings and closures are from 1999 to 2004.

Line of Evidence	Health Advisories
Beneficial Use	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
Non-Numeric Objective:	Assembly Bill 411: Weekly monitoring is required from April to October at all beaches with more than 50,000 annual visitors or at beaches located in areas adjacent to storm drains that flow during the summer. Some counties continue testing year round. Weekly samples must be tested for three indicator organisms: total coliform, fecal coliform, and enterococcus. Beaches that fail to meet the state's criteria for any one of the three indicators are to be posted with conspicuous warning signs to notify the public of health risks associated with swimming in these areas. Closings and advisories are issued on a discretionary basis. AB 411 requires the State Water Resources Control Board (SWRCB) to post monthly beach data from coastal counties throughout the state. The surveys list beach warnings, beach closures, and rain advisories resulting from bacterial contamination.
Data Used to Assess Water Quality:	Monterey County posted Rain Advisories for all beaches in the county on 15 occasions from 2000 to 2004. Each advisory was posted for several days surrounding rain events in the county (CCRWQCB, 2004d).
Spatial Representation:	The rain advisories are issued for all beaches in Monterey County, including San Carlos Beach.
Temporal Representation:	Rain advisories for the beaches were issued from February 2000 through November 2004.

Line of Evidence	Health Advisories
Beneficial Use	R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SH - Shellfish Harvesting
Non-Numeric Objective:	Assembly Bill 411: Weekly monitoring is required from April to October at all beaches with more than 50,000 annual visitors or at beaches located in areas adjacent

	to storm drains that flow during the summer. Some counties continue testing year round. Weekly samples must be tested for three indicator organisms: total coliform, fecal coliform, and enterococcus. Beaches that fail to meet the state's criteria for any one of the three indicators are to be posted with conspicuous warning signs to notify the public of health risks associated with swimming in these areas. Closings and advisories are issued on a discretionary basis. AB 411 requires the State Water Resources Control Board (SWRCB) to post monthly beach data from coastal counties throughout the state. The surveys list beach warnings, beach closures, and rain advisories resulting from bacterial contamination.
Data Used to Assess Water Quality:	Monterey County posted 23 advisories or closures for Lovers Point Beach. It was closed 11 times for sewage spills and all others (advisories and postings) were for high bacteria (fecal and enterococcus), total/fecal bacteria ratio exceedances, and log mean exceedances (CCRWQCB, 2004d).
Spatial Representation:	Lovers Point Beach located at Lovers Point Park in the City of Pacific Grove.
Temporal Representation:	Postings and closures are from 1999 to 2004.

Line of Evidence	Health Advisories
Beneficial Use	R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SH - Shellfish Harvesting
Non-Numeric Objective:	Assembly Bill 411: Weekly monitoring is required from April to October at all beaches with more than 50,000 annual visitors or at beaches located in areas adjacent to storm drains that flow during the summer. Some counties continue testing year round. Weekly samples must be tested for three indicator organisms: total coliform, fecal coliform, and enterococcus. Beaches that fail to meet the state's criteria for any one of the three indicators are to be posted with conspicuous warning signs to notify the public of health risks associated with swimming in these areas. Closings and advisories are issued on a discretionary basis. AB 411 requires the State Water Resources Control Board (SWRCB) to post monthly beach data from coastal counties throughout the state. The surveys list beach warnings, beach closures, and rain advisories resulting from bacterial contamination.
Data Used to Assess Water Quality:	Monterey County posted Rain Advisories for all beaches in the county on 15 occasions from 2000 to 2004. Each advisory was posted for several days surrounding rain events in the county (CCRWQCB, 2004d).
Spatial Representation:	The rain advisories are issued for all beaches in Monterey County, including Lovers Point Beach.
Temporal Representation:	Rain advisories for the beaches were issued from February 2000 through November 2004.

Line of Evidence	Health Advisories
Beneficial Use	R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SH - Shellfish Harvesting
Non-Numeric Objective:	Assembly Bill 411: Weekly monitoring is required from April to October at all beaches with more than 50,000 annual visitors or at beaches located in areas adjacent to storm drains that flow during the summer. Some counties continue testing year round. Weekly samples must be tested for three indicator organisms: total coliform, fecal coliform, and enterococcus. Beaches that fail to meet the state's criteria for any one of the three indicators are to be posted with conspicuous warning signs to notify the public of health risks associated with swimming in these areas. Closings and advisories are issued on a discretionary basis. AB 411 requires the State Water Resources Control Board (SWRCB) to post monthly beach data from coastal counties throughout the state. The surveys list beach warnings, beach closures, and rain advisories resulting from bacterial contamination.
Data Used to Assess Water Quality:	Monterey County posted Rain Advisories for all beaches in the county on 15 occasions from 2000 to 2004. Each advisory was posted for several days surrounding rain events in the county (CCRWQCB, 2004d).
Spatial Representation:	The rain advisories are issued for all beaches in Monterey County, including Seaside State Beach.
Temporal Representation:	Rain advisories for the beaches were issued from February 2000 through November 2004.

Region 3

Water Segment: Morro Bay

Pollutant: Aluminum

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under section 3.5 of the Listing Policy. Under section 3.5 a single line of evidence is necessary to assess listing status.

Two lines of evidence are available in the administrative record to assess this pollutant. Aluminum 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. The CTR criteria for the dissolved fraction of selected metals are applicable for the protection of aquatic life but there is no CTR criterion for dissolved aluminum and there is no criterion or guideline for aluminum in tissue that meets the requirement of the Listing Policy.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against placing this water segment-pollutant combination by it self on 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. No exceedances of CTR criteria were recorded and no exceedances of aluminum in tissue were recorded because there is no criterion or guidelines for the dissolved fraction of aluminum or aluminum in tissue that meet the requirements of the Listing Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be placed on the section 303(d) list because there is no criteria or guidelines that meet the requirements of section 6.1.3 of the Listing Policy and it cannot be determined if applicable water quality standards or guidelines are exceeded.

Lines of Evidence:

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 criterion 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 criterion 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.

Region 3

Water Segment: Morro Bay

Pollutant: Barium

Decision: Do Not 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. None of the samples exceed the water quality standards because there is no dissolved barium water quality objective, guideline or criteria for the protection of aquatic live in marine waters.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. None of the five samples exceeded any applicable standard.
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 there is no water quality objective, criteria or guideline that meets the requirements of section 6.1.3 of the Listing Policy and it cannot be determined if applicable water quality standards are exceeded.

Lines of Evidence:

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.

Data Used to Assess Water Quality: None of the five samples taken in Morro Bay, were in exceedance because there is no barium criterion or guideline for barium in marine

	waters (Keeling, S. 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 Chorro and the mouth 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.
Data Quality Assessment:	Battelle Laboratory Quality Assurance Plan.

Region 3

Water Segment: Morro Bay

Pollutant: Cadmium

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under section 3.5 of the Listing Policy. Under section 3.5 a single line of evidence is necessary to assess listing status.

Two lines of evidence are available in the administrative record to assess this pollutant. Cadmium 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.

The CTR cadmium saltwater acute 42 µg/L Criterion Maximum Concentration (CMC) and saltwater chronic 9.3 µg/L Criterion Continuous Concentration (CCC) criteria as well as the cadmium USEPA standard of 4.0 ppm (wet weight) and OEHHA standard of 3.0 ppm (wet weight) are applicable.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against placing this water segment-pollutant combination by itself on 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 5 water samples were in exceedance of the CTR criteria and none of the 12 tissue samples were in exceedance of the USEPA and OEHHA standards.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

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

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	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. 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 µg/L (Keeling, 2003).
Spatial Representation:	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	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.

Region 3

Water Segment: Morro Bay

Pollutant: Chromium (total)

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under section 3.5 of the Listing Policy. Under section 3.5 a single line of evidence is necessary to assess listing status.

Two lines of evidence are available in the administrative record to assess this pollutant. Cadmium 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. There are also no evaluation guideline for the dissolved fraction of chromium for the protection of aquatic life in marine waters that meets the requirements of the Listing Policy.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against placing this water segment-pollutant combination by it self on 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 five samples taken can be compared with the established water quality objective because the established water quality objective available for comparison is in the total form of chromium and the available data is reported in the dissolved fraction. None of the 12 tissue samples could also not be evaluated because there is no numeric criteria or guideline that meets the requirements of the Listing Policy for chromium in tissue.
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 there is no water quality objective, criteria or guideline available that will allow determination of whether water quality standards are exceeded..

Lines of Evidence:

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.

Region 3

Water Segment:	Morro Bay
Pollutant:	Copper
Decision:	Do Not List
Weight of Evidence:	This pollutant is being considered for placement on the section 303(d) list under section 3.5 of the Listing Policy. Under section 3.5 a single line of evidence is necessary to assess listing status. Two lines of evidence are available in the administrative record to assess this pollutant. The CTR copper saltwater acute 4.8 µg/L Criterion Maximum Concentration (CMC) and saltwater chronic 3.1 µg/L Criterion Continuous Concentration (CCC) criteria as well as the copper USFWS effects value of 15 ppm (wet weight) are applicable. Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against placing this water segment-pollutant combination on 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 five water samples taken exceeded any of the CTR dissolved copper criteria in the water column. Dissolved copper concentrations ranged from 0.815 to0.262 µg/L. There were also no exceedances for the 12 copper samples in tissue. Tissue concentration measured from 0.76 to 3.13 ppm. 4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be placed on the section 303(d) list because applicable water quality standards for the pollutant are not exceeded.
Lines of Evidence:	

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	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. The CTR criteria for the dissolved fraction of copper is applicable for the protection of aquatic life.
Evaluation Guideline:	CTR Saltwater acute 4.8 µg/L Criterion Maximum Concentration (CMC) and saltwater chronic 3.1 µg/L Criterion Continuous Concentration (CCC) criteria.
Data Used to Assess Water Quality:	None of the five samples taken at the 5 stations exceeded any of the CTR dissolved copper criteria in the water column. Dissolved copper concentrations ranged from 0.815 to 0.262 µg/L (Keeling, S. 2003).
Spatial Representation:	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 are: Back Bay, Mouth Los Osos, Mouth Chorro, Middle Bay and Front Bay.
Temporal Representation:	Water was sampled on March 8, 2001.
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:	US Fish and Wildlife Biological Effects value for copper is 15 ppm.
Data Used to Assess Water Quality:	There were no exceedances of the 12 samples for copper in tissue for all 4 stations. Tissue concentration measured from 0.76 to 3.13 ppm (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.
Data Quality Assessment:	State Mussel Watch Program Quality Assurance Plan.

Region 3

Water Segment: Morro Bay

Pollutant: Lead

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under section 3.5 of the Listing Policy. Under section 3.5 a single line of evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. There is no criteria or guideline available for lead in tissue that meets the requirements of the Listing Policy.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against placing this water segment-pollutant combination on 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.No exceedances were recorded because there is no criteria or guideline available for lead in tissue that meets the requirements 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 there is no water quality objective, criteria or guideline for lead in tissue that meets the requirements of section 6.1.3 of the Listing Policy and it cannot be determined if applicable water quality standards are 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: There is no criteria or guideline available for lead in tissue that meets the requirements of the Listing Policy.

Data Used to Assess Water Quality: No exceedances were recorded because there is no criteria or guideline available for lead in tissue that meets the requirements of the Listing Policy (Keeling, S. 2003).

Spatial Representation:	There were five sampling sites samples throughout Morro Bay. Locations represented the back, middle, and front of the Bay including inflows from Chorro and Los Osos Creeks.
Temporal Representation:	Samples were taken on April 29 and May 4-5, 2002.
Data Quality Assessment:	State Mussel Watch Program Quality Assurance Plan.

Region 3

Water Segment: Morro Bay

Pollutant: Mercury

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under section 3.5 of the Listing Policy. Under section 3.5 a single line of evidence is necessary to assess delisting status.

Two lines of evidence are available in the administrative record to assess this pollutant. Mercury 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. The CTR criteria for the dissolved fraction of selected metals are applicable for the protection of aquatic life but there is no CTR criterion for dissolved mercury in the saltwater column. However, OEHHA screening values are applicable for consumption of aquatic organisms.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against placing 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 12 tissue samples exceeded the OEHHA screening value and none of the five water samples taken were in exceedance because there are no guidelines for dissolved mercury in the saltwater column that meet the requirements of the Listing Policy. This does not 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 not be placed on the section 303(d) list because applicable water quality standards for the pollutant are not exceeded.

Lines of Evidence:

Numeric Line of Evidence Pollutant-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 Bay.
Temporal Representation:	Water was sampled on March 8, 2001.
Data Quality Assessment:	Battelle Laboratory Quality Assurance Plan.

Region 3

Water Segment:	Morro Bay
Pollutant:	Nickel
Decision:	Do Not 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. One line of evidence pertains to Nickel concentrations in the saltwater column, and the other pertains to Nickel concentrations in tissue. An insufficient number of samples exceed the CTR chronic-CCC criteria and there is no applicable guidelines to assess Nickel in tissue. Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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.One of five samples exceeded the CTR chronic criteria and this does not 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 not be placed on the section 303(d) list because applicable water quality standards for the pollutant are not exceeded.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	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. Water quality objective in marine environment - total concentration 2 ppb.

Evaluation Guideline:	CTR dissolved Nickel Saltwater acute is 74 µg/L (CMC) and saltwater chronic is 8.2 µg/L(CCC) criteria applicable for the protection of aquatic life in saltwater.
Data Used to Assess Water Quality:	One of five samples (at the mouth of Chorro Creek - 11.300 µg/L) exceeded the CTR-chronic CCC guideline and no sample exceeded the Acute CMC-CTR guideline concentration (Keeling, S. 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 the Chorro and the mouth of Los Osos creeks that that feed 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.
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 criteria or guideline for Nickel in tissue that meets the requirement of the Listing Policy.
Data Used to Assess Water Quality:	No standards exist. Tissue values ranged from 0.6 to 1.08 ppm for all 12 samples at all 4 sites (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.
Data Quality Assessment:	State Mussel Watch Quality Assurance Plan.

Region 3

Water Segment:	Morro Bay
Pollutant:	Vanadium (fume or dust)
Decision:	Do Not 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. It is not possible to determine exceedances of any standard because there are no guidelines for dissolved Vanadium in the saltwater column for the protection of aquatic life or any applicable guideline for Vanadium in tissue that meets the requirements of the Listing Policy. Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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.No samples exceeded any water quality standard and this does not 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 there is no water quality objective, criteria or guideline that meets the requirements of section 6.1.3 of the Listing Policy and it cannot be determined if applicable water quality standards are exceeded.

Lines of Evidence:

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.

Data Used to Assess Water Quality:	None of the five samples taken were found to exceed because there is no criterion or guideline for dissolved Vanadium in the saltwater column for the protection of aquatic life that meets the requirements of the Listing Policy (Keeling, S. 2003).
Spatial Representation:	Water was sampled from five (5) separate locations representing the back, middle and front of the Bay including inflow from the mouth Chorro and mouth 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.
Data Quality Assessment:	Battelle Laboratory Quality Assurance Plan.

Region 3

Water Segment: Morro Bay

Pollutant: Zinc

Decision: Do Not 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. None of the samples in the water column exceed any of the CTR criteria for dissolved Zinc for the protection of aquatic life. In addition there is no criteria or guideline for Zinc in tissue that meets the requirements of the Listing Policy.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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.No samples exceeded any of the CTR criteria for the protection of aquatic life in the saltwater column. In addition, it was not possible to evaluate zinc in tissue samples because there is no guideline that meets the requirement of the Listing. This does not 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 not be placed on the section 303(d) list because applicable water quality standards for the pollutant are not exceeded.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: 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. Water quality objective in marine environment - total concentration 20 ppb.
Evaluation Guideline:	Dissolved Zinc CTR Saltwater acute (CMC) criterion is 90 µg/L and saltwater chronic (CCC) criterion is 81µg/L for the protection of aquatic life in the water column.
Data Used to Assess Water Quality:	None of the five samples taken in Morro Bay exceeded any of the dissolved zinc acute or chronic criteria (Keeling, S. 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 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.
Data Quality Assessment:	Battelle Laboratory Quality Assurance Plan.

Region 3

Water Segment: Orcutt Creek

Pollutant: Aluminum

Decision: Do Not 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 single sample exceeds the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient 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. Only one sample exceeded the Secondary MCL. More data is needed to determine if the water quality objective is exceeded.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: MU - Municipal & Domestic

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.

	Title 22 MCL = 1 mg/L; Secondary MCL = 0.2 mg/L.
Data Used to Assess Water Quality:	One sample was collected on Orcutt Creek in September 2002. This sample was in exceedance of the secondary MCL (SWAMP, 2004).
Spatial Representation:	Orcutt Creek (a tributary to the Santa Maria River).
Temporal Representation:	One sample was collected on 9/3/2002.
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.

Region 3

Water Segment: Orcutt Creek

Pollutant: Dacthal

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for listing under section 3.6, and 3.1 of the Listing Policy. Under section 3.1 a single line of evidence is necessary to assess listing status and under 3.6 a segment may be listed for toxicity alone.

Two lines of evidence are available in the administrative record to assess this pollutant. Based on section 3.6 sediment toxicity was recorded but it cannot be determined if the pollutant is likely to cause or contribute to the toxic effect. Dacthal was also detected in the watercolumn but there in no numeric criteria or guideline that meets the requirement of the Listing Policy.

Based on the readily available data and information, the weight of evidence indicates that there is not 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. A sediment based numeric criteria in sediment or in the water column for dacthal is not available that complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

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

Lines of Evidence:

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

Non-Numeric Objective: 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 (Anderson, B. 2004). Sediment bulk-phase chemical analyses showed elevated concentrations of dacthal, however no numeric criteria are available.
Spatial Representation:	Orcutt Creek (a tributary to the Santa Maria River) at two sampling stations.
Temporal Representation:	Samples were collected on 5/28/2003.

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
Non-Numeric Objective:	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:	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 (Anderson, B. 2004). Dacthal was detected in both samples on the Santa Maria River, however no numeric criteria are available.
Spatial Representation:	Orcutt Creek (a tributary to the Santa Maria River) at two sampling stations.
Temporal Representation:	Samples were collected on 9/3/2002 and 5/28/2003.

Region 3

Water Segment: Orcutt Creek

Pollutant: Iron

Decision: Do Not 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 single sample exceeds the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient 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. Only one sample exceeded the Title 22 Secondary MCL. More data is needed to determine if the water quality objective is exceeded.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: MU - Municipal & Domestic

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.

Title 22 Secondary MCL = 0.3 mg/L.

Data Used to Assess Water Quality:	One sample was collected on Orcutt Creek in September 2002 (SWAMP, 2004). This sample was in exceedance of the secondary MCL.
Spatial Representation:	Orcutt Creek (a tributary to the Santa Maria River).
Temporal Representation:	One sample was collected on 9/3/2002.
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.

Region 3

Water Segment: Orcutt Creek

Pollutant: Manganese

Decision: Do Not 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 single sample exceeds the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient 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. Only one sample exceeded the Title 22 Secondary MCL. More data is needed to determine if the water quality objective is exceeded.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: MU - Municipal & Domestic

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.
Title 22 Secondary MCL = 0.05 mg/L.

Data Used to Assess Water Quality:	One sample was collected on Orcutt Creek in September 2002 (SWAMP, 2004). This sample was in exceedance of the secondary MCL.
Spatial Representation:	Orcutt Creek (a tributary to the Santa Maria River).
Temporal Representation:	One sample was collected on 9/3/2002.
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.

Region 3

Water Segment: Pacific Ocean at Marina State Beach

Pollutant: Total Coliform

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under section 3.3 of the Listing Policy. Under section 3.3 a single line of evidence is necessary to assess listing status.

Three lines of evidence are available in the administrative record to assess this pollutant. Based on section 3.3 the site does not have significant bacterial toxicity and the pollutant is not 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 against 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 AB411 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. Four of 15 samples exceeded the criteria of 70/100 ml and 0 of 15 samples exceeded the criteria of 230/100 ml; in another sample, 0 of 15 single samples were in exceedance of the criterion and these do not exceed the allowable frequency listed in Table 3.1 of the Listing Policy. The benthic community in this water body is not impacted.
5. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

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

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SH - Shellfish Harvesting
Matrix:	Water
Evaluation Guideline:	AB411: The single sample maximum criterion for total coliform in marine waters = 10,000 MPN/100 ml.
Data Used to Assess Water Quality:	Monterey County collected monthly samples at Marina State Beach in 2003 and 2004. None of the 15 single samples were in exceedance of the criterion (CCRWQCB, 2004d).
Spatial Representation:	Marina State Beach - West End of Reservation Road, City of Marina
Temporal Representation:	Samples were collected monthly from 2/4/2003 through 6/1/2004.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SH - Shellfish Harvesting
Matrix:	Water
Water Quality Objective/ Water Quality Criterion:	Central Coast RWQCB Basin Plan: At all areas where shellfish may be harvested for human consumption, the median total coliform concentration throughout the water column for any 30-day period shall not exceed 70/100 ml, nor shall more than ten percent of the samples collected during any 30-day period exceed 230/100 ml for a five-tube decimal dilution test or 330/100 ml when a three-tube decimal dilution test is used.
Data Used to Assess Water Quality:	Monterey County collected monthly bacteria samples at Seaside State Beach. Although because samples are monthly there is only 1 sample in each 30-day period, there is no limit as to how many samples must be included in the 30-day median total coliform concentration. A ten percent total coliform concentration could not be calculated either, so this criterion was used as a single (monthly) sample comparison as well. Four of 15 samples exceeded the criteria of 70/100 ml and 0 of 15 samples exceeded the criteria of 230/100 ml (CCRWQCB, 2004d).
Spatial Representation:	Marina State Beach - West End of Reservation Road, City of Marina.
Temporal Representation:	Samples were collected monthly from 2/4/2003 through 6/1/2004.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP

Line of Evidence	Health Advisories

Beneficial Use	R1 - Water Contact Recreation, R2 - Non-Contact Recreation, SH - Shellfish Harvesting
Non-Numeric Objective:	Assembly Bill 411: Weekly monitoring is required from April to October at all beaches with more than 50,000 annual visitors or at beaches located in areas adjacent to storm drains that flow during the summer. Some counties continue testing year round. Weekly samples must be tested for three indicator organisms: total coliform, fecal coliform, and enterococcus. Beaches that fail to meet the state's criteria for any one of the three indicators are to be posted with conspicuous warning signs to notify the public of health risks associated with swimming in these areas. Closings and advisories are issued on a discretionary basis. AB 411 requires the State Water Resources Control Board (SWRCB) to post monthly beach data from coastal counties throughout the state. The surveys list beach warnings, beach closures, and rain advisories resulting from bacterial contamination.
Data Used to Assess Water Quality:	Monterey County posted Rain Advisories for all beaches in the county on 15 occasions from 2000 to 2004. Each advisory was posted for several days surrounding rain events in the county (CCRWQCB, 2004d).
Spatial Representation:	The rain advisories are issued for all beaches in Monterey County, including Marina State Beach (West End of Reservation Road, City of Marina).
Temporal Representation:	Rain advisories for the beaches were issued from February 2000 through November 2004.

Region 3

Water Segment: Pacific Ocean at Spanish Bay Beach

Pollutant: Enterococcus

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under section 3.3 of the Listing Policy. Under section 3.3 a single line of evidence is necessary to assess listing status.

Four lines of evidence are available in the administrative record to assess this pollutant. Based on section 3.3 the site does not have significant bacterial toxicity and the pollutant is not 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 against 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 Assembly Bill 411criteria used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. None of 75 sample means were in exceedance of the criteria, 2 of 110 samples were in exceedance of the single sample criterion for Enterococcus, and these do not exceed the allowable frequency listed in Table 3.1 of the Listing Policy. Nine advisories/warnings were posted from 1999 to 2003. Rain Advisories for all beaches in the county were posted on 15 occasions from 2000 to 2004.
5. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

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

Matrix: Water

Evaluation Guideline: AB411: Based on the mean of the logarithms of the results of at least five

	weekly samples during any 30-day sampling period, the density of Enterococcus in water from any sampling station at a public beach or public water contact sports area, shall not exceed 35 MPN/100 ml.
Data Used to Assess Water Quality:	Monterey County collected 110 bacteria samples from 2001 through 2004 at Spanish Bay Beach. 30-day mean concentrations of Enterococcus were calculated. None of 75 sample means were in exceedance of the criteria (CCRWQCB, 2004d).
Spatial Representation:	Spanish Bay Beach is between rocky outcropping separating Spanish Bay from Asilomar Beach and Bird Rock Road in the community of Pebble Beach.
Temporal Representation:	Samples were collected from 4/2/2001 through 6/7/2004. As an AB411 beach, Spanish Bay Beach was sampled weekly April 1 - October 31 and monthly November 1 - March 30.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
Matrix:	Water
Evaluation Guideline:	AB411: The single sample maximum criterion for Enterococcus in marine waters = 104 MPN/100 ml.
Data Used to Assess Water Quality:	Monterey County collected 110 bacteria samples from 2001 through 2004 at Spanish Bay Beach. Two of 110 samples were in exceedance of the single sample criterion for Enterococcus (CCRWQCB, 2004d).
Spatial Representation:	Spanish Bay Beach is between rocky outcropping separating Spanish Bay from Asilomar Beach and Bird Rock Road in the community of Pebble Beach.
Temporal Representation:	Samples were collected from 4/2/2001 through 6/7/2004. As an AB411 beach, Spanish Bay Beach was sampled weekly April 1 - October 31 and monthly November 1 - March 30.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP

Line of Evidence	Health Advisories
Beneficial Use	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
Non-Numeric Objective:	Assembly Bill 411: Weekly monitoring is required from April to October at all beaches with more than 50,000 annual visitors or at beaches located in areas adjacent to storm drains that flow during the summer. Some counties continue testing year round. Weekly samples must be tested for three indicator organisms: total coliform, fecal coliform, and enterococcus. Beaches that fail to meet the state's criteria for any one of the three indicators are to be

	posted with conspicuous warning signs to notify the public of health risks associated with swimming in these areas. Closings and advisories are issued on a discretionary basis. AB 411 requires the State Water Resources Control Board (SWRCB) to post monthly beach data from coastal counties throughout the state. The surveys list beach warnings, beach closures, and rain advisories resulting from bacterial contamination.
Data Used to Assess Water Quality:	Monterey County posted Rain Advisories for all beaches in the county on 15 occasions from 2000 to 2004. Each advisory was posted for several days surrounding rain events in the county (CCRWQCB, 2004d).
Spatial Representation:	The rain advisories are issued for all beaches in Monterey County, including Spanish Bay Beach (between rocky outcropping separating Spanish Bay from Asilomar Beach and Bird Rock Road in the community of Pebble Beach).
Temporal Representation:	Rain advisories for the beaches were issued from February 2000 through November 2004.

Line of Evidence	Health Advisories
Beneficial Use	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
Non-Numeric Objective:	Assembly Bill 411: Weekly monitoring is required from April to October at all beaches with more than 50,000 annual visitors or at beaches located in areas adjacent to storm drains that flow during the summer. Some counties continue testing year round. Weekly samples must be tested for three indicator organisms: total coliform, fecal coliform, and enterococcus. Beaches that fail to meet the state's criteria for any one of the three indicators are to be posted with conspicuous warning signs to notify the public of health risks associated with swimming in these areas. Closings and advisories are issued on a discretionary basis. AB 411 requires the State Water Resources Control Board (SWRCB) to post monthly beach data from coastal counties throughout the state. The surveys list beach warnings, beach closures, and rain advisories resulting from bacterial contamination.
Data Used to Assess Water Quality:	Monterey County posted a total of 9 advisories/warnings for Spanish Bay Beach from in 1999, 2000, 2001, and 2004. The warnings were for high bacteria (fecal coliform and enterococcus). Additionally, there was one closure for a sewage spill (possible broken pipe) in 2000 (CCRWQCB, 2004d).
Spatial Representation:	Spanish Bay Beach is between rocky outcropping separating Spanish Bay from Asilomar Beach and Bird Rock Road in the community of Pebble Beach.
Temporal Representation:	Postings and closures are for 1999-2001 and 2004.

Region 3

Water Segment: Pacific Ocean at Still water Cove Beach

Pollutant: Enterococcus

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under section 3.3 of the Listing Policy. Under section 3.3 a single line of evidence is necessary to assess listing status.

Four lines of evidence are available in the administrative record to assess this pollutant. Based on section 3.3 the site does not have significant bacterial toxicity and the pollutant is not 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 against 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 Assembly Bill 411criteria used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. None of 76 means were in exceedance of the criteria, 8 of 81 samples were in exceedance of the single sample criterion for Enterococcus, and these do not exceed the allowable frequency listed in Table 3.1 of the Listing Policy. Twenty one advisories/warnings were posted from 1999 to 2003. Rain Advisories for all beaches in the county were posted on 15 occasions from 2000 to 2004.
5. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

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

Matrix: Water

Evaluation Guideline: AB411: The single sample maximum criterion for Enterococcus in marine

	waters = 104 MPN/100 ml.
Data Used to Assess Water Quality:	Monterey County collected 122 bacteria samples from 2001 through 2004 at Stillwater Cove Beach. Seven of 122 samples were in exceedance of the single sample criterion for Enterococcus (CCRWQCB, 2004d).
Spatial Representation:	Stillwater Cove Beach is between the Beach Club and the rocky outcropping at the south end of the cove in the community of Pebble Beach.
Temporal Representation:	Samples were collected from 4/2/2001 through 6/7/2004. As an AB411 beach, Stillwater Cove Beach was sampled weekly April 1 - October 31 and monthly November 1 - March 30.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
Matrix:	Water
Evaluation Guideline:	AB411: Based on the mean of the logarithms of the results of at least five weekly samples during any 30-day sampling period, the density of Enterococcus in water from any sampling station at a public beach or public water contact sports area, shall not exceed 35 MPN/100 ml.
Data Used to Assess Water Quality:	Monterey County collected 122 bacteria samples from 2001 through 2004 at Stillwater Cove Beach. Thirty-day mean concentrations of Enterococcus were calculated. Eight of 81 means were in exceedance of the criteria (CCRWQCB, 2004d).
Spatial Representation:	Stillwater Cove Beach is between the Beach Club and the rocky outcropping at the south end of the cove in the community of Pebble Beach.
Temporal Representation:	Samples were collected from 4/2/2001 through 6/7/2004. As an AB411 beach, Stillwater Cove Beach was sampled weekly April 1 - October 31 and monthly November 1 - March 30.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP

Line of Evidence	Health Advisories
Beneficial Use	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
Non-Numeric Objective:	Assembly Bill 411: Weekly monitoring is required from April to October at all beaches with more than 50,000 annual visitors or at beaches located in areas adjacent to storm drains that flow during the summer. Some counties continue testing year round. Weekly samples must be tested for three indicator organisms: total coliform, fecal coliform, and enterococcus. Beaches that fail to meet the state's criteria for any one of the three indicators are to be posted with conspicuous warning signs to notify the public of health risks associated with swimming in these areas. Closings and advisories are

	issued on a discretionary basis. AB 411 requires the State Water Resources Control Board (SWRCB) to post monthly beach data from coastal counties throughout the state. The surveys list beach warnings, beach closures, and rain advisories resulting from bacterial contamination.
Data Used to Assess Water Quality:	Monterey County posted Rain Advisories for all beaches in the county on 15 occasions from 2000 to 2004. Each advisory was posted for several days surrounding rain events in the county (CCRWQCB, 2004d).
Spatial Representation:	The rain advisories are issued for all beaches in Monterey County, including Stillwater Cove Beach (between the Beach Club and the rocky outcropping at the south end of the cove in the community of Pebble Beach).
Temporal Representation:	Rain advisories for the beaches were issued from February 2000 through November 2004.

Line of Evidence	Health Advisories
Beneficial Use	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
Non-Numeric Objective:	Assembly Bill 411: Weekly monitoring is required from April to October at all beaches with more than 50,000 annual visitors or at beaches located in areas adjacent to storm drains that flow during the summer. Some counties continue testing year round. Weekly samples must be tested for three indicator organisms: total coliform, fecal coliform, and enterococcus. Beaches that fail to meet the state's criteria for any one of the three indicators are to be posted with conspicuous warning signs to notify the public of health risks associated with swimming in these areas. Closings and advisories are issued on a discretionary basis. AB 411 requires the State Water Resources Control Board (SWRCB) to post monthly beach data from coastal counties throughout the state. The surveys list beach warnings, beach closures, and rain advisories resulting from bacterial contamination.
Data Used to Assess Water Quality:	Monterey County posted 21 warnings and advisories from 1999 through 2004 for high bacteria (fecal, and Enterococcus), log mean exceedances, and total/fecal bacteria ratio exceedances. Additionally, there was one closure due to a sewage spill in 2002. Each lasted for several days (CCRWQCB, 2004d).
Spatial Representation:	Stillwater Cove Beach is between the Beach Club and the rocky outcropping at the south end of the cove in the community of Pebble Beach.
Temporal Representation:	Warnings and advisories for Stillwater Cove Beach were posted from 1999-2004. One closure occurred in 2002.

Region 3

Water Segment: Pacific Ocean at Still water Cove Beach

Pollutant: Total Coliform

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under section 3.3 of the Listing Policy. Under section 3.3 a single line of evidence is necessary to assess listing status.

Five lines of evidence are available in the administrative record to assess this pollutant. Based on section 3.3 the site does not have significant bacterial toxicity and the pollutant is not 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 against 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 Assembly Bill 411criteria used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. None of 79 means were in exceedance of the criteria, 0 of 122 and 3 of 122 samples were in exceedance of the single sample criterion for Enterococcus, and these do not exceed the allowable frequency listed in Table 3.1 of the Listing Policy. Twenty one advisories/warnings were posted from 1999 to 2003. Rain Advisories for all beaches in the county were posted on 15 occasions from 2000 to 2004.
5. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

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

Matrix: Water

Evaluation Guideline: AB411: The single sample maximum criterion for total coliform in marine

	waters = 10,000 MPN/100 ml.
Data Used to Assess Water Quality:	Monterey County collected 122 bacteria samples from 2001 through 2004 at Stillwater Cove Beach. None of 122 samples were in exceedance of the single sample criterion for total coliform (CCRWQCB, 2004d).
Spatial Representation:	Stillwater Cove Beach is between the Beach Club and the rocky outcropping at the south end of the cove in the community of Pebble Beach.
Temporal Representation:	Samples were collected from 4/2/2001 through 6/7/2004. As an AB411 beach, Stillwater Cove Beach was sampled weekly April 1 - October 31 and monthly November 1 - March 30.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
Matrix:	Water
Evaluation Guideline:	AB411: Based on the mean of the logarithms of the results of at least five weekly samples during any 30-day sampling period, the density of total coliform in water from any sampling station at a public beach or public water contact sports area, shall not exceed 1,000 MPN/100 ml.
Data Used to Assess Water Quality:	Monterey County collected 122 bacteria samples from 2001 through 2004 at Stillwater Cove Beach. Thirty-day mean concentrations of total coliform were calculated. None of 79 means were in exceedance of the criteria (CCRWQCB, 2004d).
Spatial Representation:	Stillwater Cove Beach is between the Beach Club and the rocky outcropping at the south end of the cove in the community of Pebble Beach.
Temporal Representation:	Samples were collected from 4/2/2001 through 6/7/2004. As an AB411 beach, Stillwater Cove Beach was sampled weekly April 1 - October 31 and monthly November 1 - March 30.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
Matrix:	Water
Evaluation Guideline:	AB411: Based on a single sample, the density of total coliform in water from each sampling station at a public beach or public water contact sports area shall not exceed 1,000 MPN/100 ml, if the ratio of fecal/total coliform bacteria exceeds 0.1.
Data Used to Assess Water Quality:	Monterey County collected 122 bacteria samples from 2001 through 2004 at Del Monte Beach. 30-day mean concentrations of total coliform

	were calculated. None of 77 means were in exceedance of the criteria. Three of 122 measurements were in violation of the criterion. All violations occurred in September of 2003 (CCRWQCB, 2004d).
Spatial Representation:	Stillwater Cove Beach is between the Beach Club and the rocky outcropping at the south end of the cove in the community of Pebble Beach.
Temporal Representation:	Samples were collected from 4/2/2001 through 6/7/2004. As an AB411 beach, Stillwater Cove Beach was sampled weekly April 1 - October 31 and monthly November 1 - March 30. All violations occurred in September of 2003.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP

Line of Evidence	Health Advisories
Beneficial Use	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
Non-Numeric Objective:	Assembly Bill 411: Weekly monitoring is required from April to October at all beaches with more than 50,000 annual visitors or at beaches located in areas adjacent to storm drains that flow during the summer. Some counties continue testing year round. Weekly samples must be tested for three indicator organisms: total coliform, fecal coliform, and enterococcus. Beaches that fail to meet the state's criteria for any one of the three indicators are to be posted with conspicuous warning signs to notify the public of health risks associated with swimming in these areas. Closings and advisories are issued on a discretionary basis. AB 411 requires the State Water Resources Control Board (SWRCB) to post monthly beach data from coastal counties throughout the state. The surveys list beach warnings, beach closures, and rain advisories resulting from bacterial contamination.
Data Used to Assess Water Quality:	Monterey County posted Rain Advisories for all beaches in the county on 15 occasions from 2000 to 2004. Each advisory was posted for several days surrounding rain events in the county (CCRWQCB, 2004d).
Spatial Representation:	The rain advisories are issued for all beaches in Monterey County, including Stillwater Cove Beach (between the Beach Club and the rocky outcropping at the south end of the cove in the community of Pebble Beach).
Temporal Representation:	Rain advisories for the beaches were issued from February 2000 through November 2004.

Line of Evidence	Health Advisories
Beneficial Use	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
Non-Numeric Objective:	Assembly Bill 411: Weekly monitoring is required from April to October at all beaches with more than 50,000 annual visitors or at beaches located in areas adjacent to storm drains that flow during the summer. Some counties continue testing year round. Weekly samples must be tested for three indicator

	organisms: total coliform, fecal coliform, and enterococcus. Beaches that fail to meet the state's criteria for any one of the three indicators are to be posted with conspicuous warning signs to notify the public of health risks associated with swimming in these areas. Closings and advisories are issued on a discretionary basis. AB 411 requires the State Water Resources Control Board (SWRCB) to post monthly beach data from coastal counties throughout the state. The surveys list beach warnings, beach closures, and rain advisories resulting from bacterial contamination.
Data Used to Assess Water Quality:	Monterey County posted 21 warnings and advisories from 1999 through 2004 for high bacteria (fecal, and Enterococcus), log mean exceedances, and total/fecal bacteria ratio exceedances. Additionally, there was one closure due to a sewage spill in 2002. Each lasted for several days (CCRWQCB, 2004d).
Spatial Representation:	Stillwater Cove Beach is between the Beach Club and the rocky outcropping at the south end of the cove in the community of Pebble Beach.
Temporal Representation:	Warnings and advisories for Stillwater Cove Beach were posted from 1999-2004. One closure occurred in 2002.

Region 3

Water Segment: Pacific Ocean at Sunset Drive at Arena Beach (part of Asilomar Beach)

Pollutant: Enterococcus

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under section 3.3 of the Listing Policy. Under section 3.3 a single line of evidence is necessary to assess listing status.

Four lines of evidence are available in the administrative record to assess this pollutant. Based on section 3.3 the site does not have significant bacterial toxicity and the pollutant is not 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 against 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 Assembly Bill 411criteria used complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. None of 76 means were in exceedance of the criteria, 4 of 113 samples were in exceedance of the single sample criterion for Enterococcus, and these do not exceed the allowable frequency listed in Table 3.1 of the Listing Policy. Five advisories/warnings were posted from 1999 to 2003. Rain Advisories for all beaches in the county were posted on 15 occasions from 2000 to 2004.
5. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

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

Matrix: Water

Evaluation Guideline: AB411: Based on the mean of the logarithms of the results of at least five

	weekly samples during any 30-day sampling period, the density of Enterococcus in water from any sampling station at a public beach or public water contact sports area, shall not exceed 35 MPN/100 ml.
Data Used to Assess Water Quality:	Monterey County collected 113 bacteria samples from 2001 through 2004 at Sunset Drive at Arena Beach. Thirty-day mean concentrations of Enterococcus were calculated. None of 76 means were in exceedance of the criteria (CCRWQCB, 2004d).
Spatial Representation:	Sunset Drive at Arena Beach is between beach located at Sunset Drive and Arena and rocky outcropping separating Spanish Bay from Asilomar Beach, City of Pacific Grove and Pebble Beach community
Temporal Representation:	Samples were collected from 4/2/2001 through 6/7/2004. As an AB411 beach, Sunset Drive at Arena Beach was sampled weekly April 1 - October 31 and monthly November 1 - March 30.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
Matrix:	Water
Evaluation Guideline:	AB411: The single sample maximum criterion for Enterococcus in marine waters = 104 MPN/100 ml.
Data Used to Assess Water Quality:	Monterey County collected 113 bacteria samples from 2001 through 2004 at Sunset Drive at Arena Beach. Four of 113 samples were in exceedance of the single sample criterion for Enterococcus (CCRWQCB, 2004d).
Spatial Representation:	Sunset Drive at Arena Beach is between beach located at Sunset Drive and Arena and rocky outcropping separating Spanish Bay from Asilomar Beach, City of Pacific Grove and Pebble Beach community.
Temporal Representation:	Samples were collected from 4/2/2001 through 6/7/2004. As an AB411 beach, Sunset Drive at Arena Beach was sampled weekly April 1 - October 31 and monthly November 1 - March 30.
Data Quality Assessment:	Monterey County Health Department, Division of Environmental Health QAPP

Line of Evidence	Health Advisories
Beneficial Use	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
Non-Numeric Objective:	Assembly Bill 411: Weekly monitoring is required from April to October at all beaches with more than 50,000 annual visitors or at beaches located in areas adjacent to storm drains that flow during the summer. Some counties continue testing year round. Weekly samples must be tested for three indicator organisms: total coliform, fecal coliform, and enterococcus. Beaches that fail to meet the state's criteria for any one of the three indicators are to be posted with conspicuous warning signs to notify the public of health risks associated with swimming in these areas. Closings and advisories are

	issued on a discretionary basis. AB 411 requires the State Water Resources Control Board (SWRCB) to post monthly beach data from coastal counties throughout the state. The surveys list beach warnings, beach closures, and rain advisories resulting from bacterial contamination.
Data Used to Assess Water Quality:	Monterey County posted 5 advisories/warnings for Sunset Drive at Arena Beach from 1999 to 2003. Advisories were for high bacteria (enterococcus), (CCRWQCB, 2004d).
Spatial Representation:	Sunset Drive at Arena Beach is between beach located at Sunset Drive and Arena and rocky outcropping separating Spanish Bay from Asilomar Beach, City of Pacific Grove and Pebble Beach community.
Temporal Representation:	Advisories were posted in 1999, 2002, and 2003. Each was posted for a few days.

Line of Evidence	Health Advisories
Beneficial Use	R1 - Water Contact Recreation, R2 - Non-Contact Recreation
Non-Numeric Objective:	Assembly Bill 411: Weekly monitoring is required from April to October at all beaches with more than 50,000 annual visitors or at beaches located in areas adjacent to storm drains that flow during the summer. Some counties continue testing year round. Weekly samples must be tested for three indicator organisms: total coliform, fecal coliform, and enterococcus. Beaches that fail to meet the state's criteria for any one of the three indicators are to be posted with conspicuous warning signs to notify the public of health risks associated with swimming in these areas. Closings and advisories are issued on a discretionary basis. AB 411 requires the State Water Resources Control Board (SWRCB) to post monthly beach data from coastal counties throughout the state. The surveys list beach warnings, beach closures, and rain advisories resulting from bacterial contamination.
Data Used to Assess Water Quality:	Monterey County posted Rain Advisories for all beaches in the county on 15 occasions from 2000 to 2004. Each advisory was posted for several days surrounding rain events in the county (CCRWQCB, 2004d).
Spatial Representation:	The rain advisories are issued for all beaches in Monterey County, including Sunset Drive at Arena Beach is between beach located at Sunset Drive and Arena and rocky outcropping separating Spanish Bay from Asilomar Beach, City of Pacific Grove and Pebble Beach community.
Temporal Representation:	Rain advisories for the beaches were issued from February 2000 through November 2004.

Region 3

Water Segment: San Vicente Creek

Pollutant: Sedimentation/Siltation

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for listing under section 3.9 of the Listing Policy. Under section 3.9 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. Biological and habitat information are difficult to assess because it was not compared to reference conditions or sites.

Based on the readily available data and information, the weight of evidence indicates that there is not 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 Data cannot be assessed in terms of the Listing Policy because no reference information is available.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: 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

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 to192 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 is used to determone 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. There sampling techniques are discuss 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.

Region 3

Water Segment: Santa Maria River

Pollutant: Aluminum

Decision: Do Not 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 single sample exceeds the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient 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. Only one sample exceeded the water quality objective. More data is needed to determine if the water quality objective is exceeded.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: MU - Municipal & Domestic

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.

	Title 22 MCL = 1 mg/L; Secondary MCL = 0.2 mg/L.
Data Used to Assess Water Quality:	One sample was collected on the Lower Santa Maria River on 9/3/2002 (SWAMP, 2004). This sample was in exceedance of the secondary MCL.
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:	One sample was collected on 9/3/2002.
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.

Region 3

Water Segment:	Santa Maria River
Pollutant:	Dacthal
Decision:	Do Not List
Weight of Evidence:	This pollutant is being considered for listing under section 3.6 of the Listing Policy. Under section 3.6 a single toxicity line of evidence can be used to assess the listing status. Two lines of evidence are available in the administrative record to assess this pollutant. Based on section 3.6 the site has water and sediment toxicity but it cannot be determined if the pollutant is likely to cause or contribute to the toxic effect. Based on the readily available data and information, the weight of evidence indicates that there is not sufficient justification in favor of 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. A numeric criteria for water and a sediment quality guideline is not available that complies with the requirements of section 6.1.3 of the Policy. 2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy. 3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy. 4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be placed on the section 303(d) list because it cannot be determined if applicable water quality standards are exceeded.
Lines of Evidence:	

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
Non-Numeric Objective:	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. Sediment bulk-phase chemical analyses showed elevated concentrations of dacthal, however no numeric criteria are available (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 10/22/2003.

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
Non-Numeric Objective:	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:	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. Dacthal was detected in both samples on the Santa Maria River, however no numeric criteria are available (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.

Region 3

Water Segment: Santa Maria River

Pollutant: Diazinon

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under section 3.6 of the Listing Policy. Under section 3.6 a single toxicity line of evidence can be used to assess listing status.

Three lines of evidence are available in the administrative record to assess this pollutant. Data for water, sediment and tissue appear to meet the guideline. The sediment and tissue data cannot be interpreted because no numerical guideline is available.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against 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. A sediment quality guideline is not available that complies with the requirements of section 6.1.3 of the Policy.
2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
4. None of 2 samples were in exceedance of the aquatic life criteria and these do not exceed the allowable frequency listed in Table 3.1 of the Listing Policy. The benthic community in this water body is not impacted.
5. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: 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. CDFG Hazardous Assessment Criteria for Aquatic Life: 4-day average = 0.10 ppb, 1-hour average = 0.16 ppb.
Evaluation Guideline:	CDFG Hazard Assessment Criteria - 0.10 µg/L 4-day average and 0.16 µg/L 1-hour average. (Siepman & Finlayson, 2000; Finlayson, 2004).
Data Used to Assess Water Quality:	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 (SWAMP, 2004). 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 the Santa Maria River, 0 of 2 samples were in exceedance of the aquatic life criteria. Both measurements were at or below the criterion for aquatic life.
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 samples were collected from the Lower Santa Maria River and Orcutt Creek (a tributary) in 2002 and 2003 (SWAMP, 2004). One sample was collected from the river in 2003 and diazinon was measured at 0.234 ng/g. No numeric criteria exist for diazinon in sediment.
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:	Sediment was sampled 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.

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:	CDFG Hazard Assessment Criteria 0.16 µg/L 1-hour average (acute), 0.10 µg/L 4-day (chronic) average.
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. Levels of Diazinon (up to 364 ng/g dry weight) were detected in sand crabs from beaches near the Santa Maria River mouth (Guadalupe) in the spring, again suggesting a link to agricultural land uses. This pesticide was only detected in overwintered adult crabs at this site and date suggesting a link to runoff associated with winter rainfall.
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.

Region 3

Water Segment:	Santa Maria River
Pollutant:	Hexachlorobenzene
Decision:	Do Not 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. 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 against 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. None of the samples exceeded the water quality objective and this does not 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 not be placed on the section 303(d) list because applicable water quality standards for the pollutant are not exceeded.
Lines of Evidence:	

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
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. HCB occurred in low, but detectable concentrations. The maximum concentration found in August 2000 was 1.5 ng/g.
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.

Region 3

Water Segment:	Santa Maria River
Pollutant:	Iron
Decision:	Do Not 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 single sample exceeds the water quality objective. Based on the readily available data and information, the weight of evidence indicates that there is insufficient 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. Only one sample exceeded the water quality objective. More data is needed to determine if the water quality objective is exceeded. 4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be placed on the section 303(d) list because it cannot be determined if applicable water quality standards are exceeded.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	MU - Municipal & Domestic
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.

	Title 22 Secondary MCL = 0.3 mg/L.
Data Used to Assess Water Quality:	One sample was collected on the Lower Santa Maria River on 9/3/2002. This sample was in exceedance of the secondary MCL (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:	One sample was collected on 9/3/2002.
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.

Region 3

Water Segment:	Santa Maria River
Pollutant:	Manganese
Decision:	Do Not 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 single sample exceeds the water quality objective. Based on the readily available data and information, the weight of evidence indicates that there is insufficient 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. Only one sample exceeded the water quality objective. More data is needed to determine if the water quality objective is exceeded. 4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be placed on the section 303(d) list because it cannot be determined if applicable water quality standards are exceeded.

Lines of Evidence:

Numeric Line of Evidence	Pollutant-Water
Beneficial Use:	MU - Municipal & Domestic
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.

	Title 22 Secondary MCL = 0.05 mg/L.
Data Used to Assess Water Quality:	One sample was collected on the Lower Santa Maria River on 9/3/2002 (SWAMP, 2004). This sample was in exceedance of the secondary MCL.
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:	One sample was collected on 9/3/2002.
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.

Region 3

Water Segment:	Santa Maria River
Pollutant:	Polycyclic Aromatic Hydrocarbons (PAHs)
Decision:	Do Not List
Weight of Evidence:	This pollutant is being considered for listing 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. Based on section 3.5, PAHs were recorded in the sand crabs tissue samples but it cannot be determined if the pollutant is likely to cause or contribute to any detrimental effects because there is no tissue-pollutant specific guideline that meets the requirements of the Listing Policy. Based on the readily available data and information, the weight of evidence indicates that there is insufficient 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. A tissue pollutant specific evaluation guideline is not available that complies with the requirements of section 6.1.3 of the Policy. 2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy. 3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy. 4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.
SWRCB Staff Recommendation:	After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be placed on the section 303(d) list because it cannot be determined if applicable water quality standards are exceeded.

Lines of Evidence:

Line of Evidence	Pollutant-Tissue
Beneficial Use	CO - Cold Freshwater Habitat, ES - Estuarine Habitat, MA - Marine Habitat, MI - Fish Migration, 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. The highest concentrations of total PAHs in sand crabs were found in the vicinity of the Santa Maria River (Guadalupe and Santa Maria River) where values for individual samples collected in August ranged from 310 to 2117 ng/g dry weight and 2167 to 14419 ng/g lipid weight. Mean concentrations of total PAHs in samples from the Santa Maria River site located south of the river exceeded 940 ng/g dry weight and 6500 ng/g lipid weight.
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.

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