

Fact Sheets Supporting “Do Not List” Recommendations



September 2005

Region 8

Water Segment: Anaheim Bay

Pollutant: 2-Methylnaphthalene

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 two lines of evidence are necessary to assess listing status. One line of evidence documents toxicity and the other line of evidence associates the observed toxicity with a pollutant or pollutants

Two lines of evidence are available in the administrative record to assess this pollutant. Toxicity is observed but only a single sample exceeds the water quality guideline.

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. One of 61 samples exceeded the 112.18 ug/g (dry weight) PEL sediment quality guideline (MacDonald et al., 1996).
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-Sediment

Beneficial Use:

MA - Marine Habitat

Matrix:

Sediment

***Water Quality Objective/
Water Quality Criterion:***

The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses.

Evaluation Guideline:

The PEL sediment quality guideline for 2-methylnaphthlene is 201.3 ng/g (ppm) dry weight (MacDonald, et. al., 1996).

***Data Used to Assess Water
Quality:***

One of 61 samples exceeded the PEL (Santa Ana RWQCB. 2003b).

Spatial Representation:

Samples were collected at stations 1 through 35 in Anaheim Bay.

Temporal Representation: Samples were collected on 8/08/01, 8/25/2001, and 4/14/2003.
Environmental Conditions: Thirty-one samples were collected during wet season (8/1/01 and 8/25/01) and 30 sample were collected in the dry season (4/14/03).
Data Quality Assessment: SARWQCB followed the Bight 1998 QAPP developed by SCCWRP.
QA/QC Equivalent: Quality control data was presented.

Numeric Line of Evidence Toxicity
Beneficial Use: MA - Marine Habitat
Matrix: Sediment
*Water Quality Objective/
Water Quality Criterion:* Basin Plan Narrative Water Quality Objective: The concentrations of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses.

*Data Used to Assess Water
Quality:* Twenty-three of 63 samples exceeded the 90 percent of the minimum significant difference for test species *Eohaustorius estuarius*. Nine of 31 samples exhibited toxicity in the dry season (8/25/01), and 17 of 33 exhibited toxicity in the wet season (4/14/03) (Santa Ana RWQCB, 2003a).

Spatial Representation: Samples were collected at stations 1 through 35 in Anaheim Bay.
Temporal Representation: Data were collected on 8/25/01 and 4/14/2003.
Environmental Conditions: Samples were collected during dry (8/25/01) and wet (4/14/03) seasons.
Data Quality Assessment: SARWQCB followed the Bight 1998 QAPP developed by SCCWRP.
QA/QC Equivalent: Quality control data was presented.

Region 8

Water Segment: Anaheim Bay

Pollutant: Antimony, Arsenic, Cadmium, Chromium (total), Copper, Lead, Mercury, Silver, Zinc

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 two lines of evidence are necessary to assess listing status. One line of evidence documents toxicity and the other line of evidence associates the observed toxicity with a pollutant or pollutants

Two lines of evidence are available in the administrative record to assess this pollutant. Toxicity is observed but none of the samples exceeded the water quality guideline.

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 61 samples exceeded the sediment quality guidelines (dry weight) for the following metals: 112.2 ug/g lead, 4.21 ug/g cadmium, 1.77 ug/g silver PELs (MacDonald et al., 1996) ; and 25 ug/g antimony, 370 ug/g chromium (total), 270 ug/g copper, 410 ug/g zinc ERM's (Long et al., 1995). These metals do 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-Sediment

Beneficial Use: MA - Marine Habitat

Matrix: Sediment

**Water Quality Objective/
Water Quality Criterion:** The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses.

Evaluation Guideline: Sediment Quality Guidelines (dry weight) were used for the following metals: PELs (MacDonald et al, 1996) - 112.2 ug/g lead, 4.21 ug/g cadmium, 1.77 ug/g silver; ERM's (Long et al., 1995) - 25 ug/g antimony, 370 ug/g chromium (total), 270 ug/g copper, 410 ug/g zinc; and 1.77 ug/g silver.

Data Used to Assess Water Quality: None of the 63 samples exceeded the sediment quality guidelines for antimony, arsenic, cadmium, total chromium, copper, mercury, lead, mercury, silver, and zinc. Concentrations of the metals in sediment (dry weight) met standards (Santa Ana RWQCB, 2003b).

Spatial Representation: Samples were collected at stations 1 through 35 in Anaheim Bay.

Temporal Representation: Samples were collected on 08/25/2001 and 04/14/2003.

Data Quality Assessment: SARWQCB followed the Bight 1998 QAPP developed by SCCWRP.

QA/QC Equivalent: Quality control data was presented.

Numeric Line of Evidence Toxicity

Beneficial Use: MA - Marine Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* Basin Plan Narrative Water Quality Objective: The concentrations of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses.

Data Used to Assess Water Quality: Twenty-three of 63 samples exceeded the 90 percent of the minimum significant difference for test species *Eohaustorius estuarius*. Nine of 31 samples exhibited toxicity in the dry season (8/25/01), and 17 of 33 exhibited toxicity in the wet season (4/14/03) (Santa Ana RWQCB, 2003a).

Spatial Representation: Samples were collected at stations 1 through 35 in Anaheim Bay.

Temporal Representation: Data were collected on 8/25/01 and 4/14/2003.

Environmental Conditions: Samples were collected during dry (8/25/01) and wet (4/14/03) seasons.

Data Quality Assessment: SARWQCB followed the Bight 1998 QAPP developed by SCCWRP.

QA/QC Equivalent: Quality control data was presented.

Region 8

Water Segment:	Anaheim Bay
Pollutant:	Benzo(a)pyrene (PAHs),Chlordane, Chrysene (C1-C4),Phenanthrene, Polycyclic Aromatic Hydrocarbons (PAHs) (Aquatic Ecosystems)
Decision:	Do Not List
Weight of Evidence:	<p>These pollutants are being considered for placement on the section 303(d) list under section 3.6 of the Listing Policy. Under section 3.6 two lines of evidence are necessary to assess listing status. One line of evidence documents toxicity and the other line of evidence associates the observed toxicity with a pollutant or pollutants</p> <p>Two lines of evidence are available in the administrative record to assess this pollutant. Toxicity is observed but none of the samples exceed the water quality guideline.</p> <p>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.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1.The data used satisfies the data quality requirements of section 6.1.4 of the Policy.2.The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.3. None of 61 samples exceeded the 763.2 ng/g benzo(a)anthracene, 846 ng/g chrysene, and 543.2 ng/g phenanthrene (dry weight) sediment quality guideline (MacDonald et al., 2000b). The sediment quality guideline for total PAHs is 1800ug/g dry weight (Fairey et al., 2001). These pollutants do 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:	

<i>Numeric Line of Evidence</i>	Pollutant-Sediment
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses.
<i>Evaluation Guideline:</i>	PEL sediment quality guideline in dry weight (MacDonald et al., 1996): 763.2 ng/g (ppb) benzo(a)anthracene, 846 ng/g (ppb) chrysene, and 543.5 ng/g (ppb) phenanthrene.

	Sediment quality guideline for total PAHs is 1800 ug/g wet weight (Fairey et al., 2001).
<i>Data Used to Assess Water Quality:</i>	None of 61 samples exceeded the sediment quality guideline for each pollutant (Santa Ana RWQCB, 2003b).
<i>Spatial Representation:</i>	Samples were collected at stations 1 through 35 in Anaheim Bay.
<i>Temporal Representation:</i>	Samples were collected on 8/8/01, 8/25/01 and on 4/14/03. Generally, samples were collected on both dates for each station.
<i>Environmental Conditions:</i>	Thirty-one samples were collected during the dry season (8/8/01 and 8/25/01) and 30 sample were collected in wet (4/14/03) season.
<i>Data Quality Assessment:</i>	SARWQCB followed Bight 1998 QAPP developed by SCCWRP..
<i>QA/QC Equivalent:</i>	Quality control data was presented.

<i>Numeric Line of Evidence</i>	Toxicity
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan Narrative Water Quality Objective: The concentrations of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses.
<i>Data Used to Assess Water Quality:</i>	Twenty-three of 63 samples exceeded the 90 percent of the minimum significant difference for test species Eohaustorius estuarius. Nine of 31 samples exhibited toxicity in the dry season (8/25/01), and 17 of 33 exhibited toxicity in the wet season (4/14/03) (Santa Ana RWQCB, 2003a).
<i>Spatial Representation:</i>	Samples were collected at stations 1 through 35 in Anaheim Bay.
<i>Temporal Representation:</i>	Data were collected on 8/25/01 and 4/14/2003.
<i>Environmental Conditions:</i>	Samples were collected during dry (8/25/01) and wet (4/14/03) seasons.
<i>Data Quality Assessment:</i>	SARWQCB followed the Bight 1998 QAPP developed by SCCWRP.
<i>QA/QC Equivalent:</i>	Quality control data was presented.

Region 8

Water Segment: Anaheim Bay

Pollutant: Chlordane, Dieldrin, Polychlorinated biphenyls

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 two lines of evidence are necessary to assess listing status. One line of evidence documents toxicity and the other line of evidence associates the observed toxicity with a pollutant or pollutants

Two lines of evidence are available in the administrative record to assess this pollutant. Toxicity is observed but none of the samples exceed the water quality guideline.

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 58 samples exceeded the 6 ng/g (ppb) total chlordane, 8 ng/g (ppb) dieldrin dry weight ERM sediment quality guideline (Long et al., 1996), and 400 ng/g total PCBs dry weight sediment quality guideline MacDonald et al., 2000). These pollutants do 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-Sediment

Beneficial Use: MA - Marine Habitat

Matrix: Sediment

**Water Quality Objective/
Water Quality Criterion:** The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses.

Evaluation Guideline: ERM sediment quality guidelines dry weight (Long et al., 1994): 6 ng/g (ppb) total chlordane, and 8 ng/g (ppb) dieldrin.

Sediment quality guideline for total PCB is 400 ng/g dry weight (MacDonald et

	al., 2000).
<i>Data Used to Assess Water Quality:</i>	None of the 58 samples exceeded the sediment quality guidelines (Santa Ana RWQCB, 2003b).
<i>Spatial Representation:</i>	Samples were collected at stations 1 through 35 in Anaheim Bay .
<i>Temporal Representation:</i>	Samples were collected on 8/25/2001 and 4/14/2003.
<i>Environmental Conditions:</i>	Twenty-nine samples were collected during dry season (8/25/01) and 29 sample were collected in the wet season (4/14/03).
<i>Data Quality Assessment:</i>	SARWQCB followed the Bight 1998 QAPP developed by SCCWRP.
<i>QA/QC Equivalent:</i>	Quality control data was presented.

<i>Numeric Line of Evidence</i>	Toxicity
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Basin Plan Narrative Water Quality Objective: The concentrations of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses.
<i>Data Used to Assess Water Quality:</i>	Twenty-three of 63 samples exceeded the 90 percent of the minimum significant difference for test species Eohaustorius estuarius. Nine of 31 samples exhibited toxicity in the dry season (8/25/01), and 17 of 33 exhibited toxicity in the wet season (4/14/03) (Santa Ana RWQCB, 2003a).
<i>Spatial Representation:</i>	Samples were collected at stations 1 through 35 in Anaheim Bay.
<i>Temporal Representation:</i>	Data were collected on 8/25/01 and 4/14/2003.
<i>Environmental Conditions:</i>	Samples were collected during dry (8/25/01) and wet (4/14/03) seasons.
<i>Data Quality Assessment:</i>	SARWQCB followed the Bight 1998 QAPP developed by SCCWRP.
<i>QA/QC Equivalent:</i>	Quality control data was presented.

Region 8

Water Segment: Anaheim Bay

Pollutant: Dibenz[a,h]anthracene

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 two lines of evidence are necessary to assess listing status.

Two lines of evidence are available in the administrative record to assess this pollutant. Although toxicity has been documented in this water body, none of the sediment samples taken exceed the sediment quality guideline.

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. 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 not exceeded.

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Sediment
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses.
<i>Evaluation Guideline:</i>	ERM sediment quality guideline of 260 ng/g for Dibenz[a,h]anthracene (MacDonald et al., 1996)
<i>Data Used to Assess Water Quality:</i>	None of the 61 samples collected exceeded the ERM sediment quality guideline (Santa Ana RWQCB, 2003b).
<i>Spatial Representation:</i>	Samples were collected at stations 1 through 35 in Anaheim Bay.
<i>Temporal Representation:</i>	Samples were collected on 8/01/01, 8/25/01 and 4/14/03.
<i>Environmental Conditions:</i>	Thirty-one samples were collected during the dry season (8/8/01 and 8/25/01), and 30 samples were collected in the wet season (4/14/03).

Data Quality Assessment: The data was collected by the SARWQCB using SCCWRP methodologies.
QA/QC Equivalent: Quality control data was presented.

Numeric Line of Evidence Toxicity
Beneficial Use: MA - Marine Habitat
Matrix: Sediment
*Water Quality Objective/
Water Quality Criterion:* Basin Plan Narrative Water Quality Objective: The concentrations of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses.

*Data Used to Assess Water
Quality:* Twenty-three of 63 samples exceeded the 90 percent of the minimum significant difference for test species *Eohaustorius estuarius*. Nine of 31 samples exhibited toxicity in the dry season (8/25/01), and 17 of 33 exhibited toxicity in the wet season (4/14/03) (Santa Ana RWQCB, 2003a).

Spatial Representation: Samples were collected at stations 1 through 35 in Anaheim Bay.
Temporal Representation: Data were collected on 8/25/01 and 4/14/2003.
Environmental Conditions: Samples were collected during dry (8/25/01) and wet (4/14/03) seasons.
Data Quality Assessment: SARWQCB followed the Bight 1998 QAPP developed by SCCWRP.
QA/QC Equivalent: Quality control data was presented.

Region 8

Water Segment: Anaheim Bay

Pollutant: Phenanthrene

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 two lines of evidence are necessary to assess listing status.

Two lines of evidence are available in the administrative record to assess this pollutant. No samples exceeded the PEL sediment quality guideline for Phenanthrene.

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.None of 61 samples exceeded the sediment quality guideline 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:

<i>Numeric Line of Evidence</i>	Pollutant-Sediment
<i>Beneficial Use:</i>	MA - Marine Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses.
<i>Evaluation Guideline:</i>	The PEL sediment quality guideline for Phenanthrene is 543.53 ng/g (ppb) dry weight (MacDonald et al., 1996).
<i>Data Used to Assess Water Quality:</i>	None of 61 samples exceeded the PEL (Santa Ana RWQCB, 2003b).
<i>Spatial Representation:</i>	Samples were collected at stations 1 through 35 in Anaheim Bay.
<i>Temporal Representation:</i>	Samples were collected on 08/25/2001 and 04/14/2003.

Data Quality Assessment: SARWQCB followed the Bight 1998 QAPP developed by SCCWRP.
QA/QC Equivalent: Quality control data was presented along with the data.

Numeric Line of Evidence Toxicity
Beneficial Use: MA - Marine Habitat
Matrix: Sediment
*Water Quality Objective/
Water Quality Criterion:* Basin Plan Narrative Water Quality Objective: The concentrations of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses.

*Data Used to Assess Water
Quality:* Twenty-three of 63 samples exceeded the 90 percent of the minimum significant difference for test species *Eohaustorius estuarius*. Nine of 31 samples exhibited toxicity in the dry season (8/25/01), and 17 of 33 exhibited toxicity in the wet season (4/14/03) (Santa Ana RWQCB, 2003a).

Spatial Representation: Samples were collected at stations 1 through 35 in Anaheim Bay.
Temporal Representation: Data were collected on 8/25/01 and 4/14/2003.
Environmental Conditions: Samples were collected during dry (8/25/01) and wet (4/14/03) seasons.
Data Quality Assessment: SARWQCB followed the Bight 1998 QAPP developed by SCCWRP.
QA/QC Equivalent: Quality control data was presented.

Region 8

Water Segment: Anaheim Bay

Pollutant: Pyrene

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 two lines of evidence are necessary to assess listing status. One line of evidence documents toxicity and the other line of evidence associates the observed toxicity with a pollutant or pollutants

Two lines of evidence are available in the administrative record to assess this pollutant. Toxicity is observed but only a single sample exceeds the sediment quality guideline.

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. One sample exceeded the PEL sediment quality guideline (MacDonald et al., 1996). 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 applicable water quality standards for the pollutant are not exceeded.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Sediment

Beneficial Use: MA - Marine Habitat

Matrix: Sediment

***Water Quality Objective/
Water Quality Criterion:*** The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses.

Evaluation Guideline: The PEL sediment quality guideline for Pyrene is 1397.4 ng/g (ppb) dry weight (MacDonald et. al., 1996).

Data Used to Assess Water Quality: One of 61 samples exceeded the PEL. The sample exceeding was collected during the wet season (Santa Ana RWQCB, 2003b).

Spatial Representation: Samples were collected at stations 1 through 35 in Anaheim Bay.

Temporal Representation: Samples were collected on 8/8/01, 8/25/01 and 04/14/03.
Environmental Conditions: Thirty-one samples were collected during the dry season (8/8/01 and 8/25/01) and 30 in the wet season.
Data Quality Assessment: The PEL sediment quality guideline for Phenanthrene is 543.53 ng/g (ppb) dry weight (MacDonald et. al., 1996).
QA/QC Equivalent: Quality control data was presented.

Numeric Line of Evidence Toxicity
Beneficial Use: MA - Marine Habitat
Matrix: Sediment
*Water Quality Objective/
Water Quality Criterion:* Basin Plan Narrative Water Quality Objective: The concentrations of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses.

*Data Used to Assess Water
Quality:* Twenty-three of 63 samples exceeded the 90 percent of the minimum significant difference for test species Eohaustorius estuarius. Nine of 31 samples exhibited toxicity in the dry season (8/25/01), and 17 of 33 exhibited toxicity in the wet season (4/14/03) (Santa Ana RWQCB, 2003a).
Spatial Representation: Samples were collected at stations 1 through 35 in Anaheim Bay.
Temporal Representation: Data were collected on 8/25/01 and 4/14/2003.
Environmental Conditions: Samples were collected during dry (8/25/01) and wet (4/14/03) seasons.
Data Quality Assessment: SARWQCB followed the Bight 1998 QAPP developed by SCCWRP.
QA/QC Equivalent: Quality control data was presented.

Region 8

Water Segment: Huntington Harbour

Pollutant: Cadmium

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under section 3.6 of the Listing Policy. Under section 3.6 two lines of evidence are necessary to assess listing status. One line of evidence documents toxicity and the other line of evidence associates the observed toxicity with a pollutant or pollutants.

Two lines of evidence are available in the administrative record to assess this pollutant. Toxicity is observed but none of the sediment samples exceed the PEL sediment quality guideline for cadmium.

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 66 samples exceeded the cadmium 4.21 ug/g dry weight PEL sediment quality guideline 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-Sediment

Beneficial Use: MA - Marine Habitat

Matrix: Sediment

***Water Quality Objective/
Water Quality Criterion:*** The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).

Evaluation Guideline: There is a sediment quality guideline for cadmium of 4.21 ug/g dw.

Data Used to Assess Water Quality: None of the 65 samples exceeded the cadmium PEL sediment quality guideline (Bay and Greenstein, 2003).

Spatial Representation: Samples were collected at Huntington Harbor, stations labeled 36 through 72.

Temporal Representation: Samples were collected on 08/08/2001 and 02/27/2003.
Data Quality Assessment: SARWQCB followed the Bight 1998 QAPP developed by SCCWRP.
QA/QC Equivalent: Quality control data was presented.

Numeric Line of Evidence Toxicity
Beneficial Use: ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat
Matrix: Sediment
*Water Quality Objective/
Water Quality Criterion:* Narrative Water Quality Objective: " The concentration of toxic pollutants in the water column, sediment or biota shall not adversely affect beneficial use."
*Data Used to Assess Water
Quality:* Sixty-three of 66 samples exceeded the 90 percent of the minimum significant difference for test species Eohaustorius estuarius. Thirty-two of 33 samples exhibited toxicity in the dry season (8/7/01 and 8/8/03), and 31 of 33 exhibited toxicity in the wet season (2/24/03); (Bay & Greenstein, 2003).
Spatial Representation: Samples were collected at stations 36 through 72 in Huntington Harbour.
Temporal Representation: Samples were collected on 8/7/01, 8/8/01 and 2/24/03.
Environmental Conditions: Samples were collected during wet (8/7/01, 8/8/01) and dry season (2/24/03).
Data Quality Assessment: SARWQCB followed the Bight 1998 QAPP developed by SCCWRP.

Region 8

Water Segment: Huntington Harbour

Pollutant: Dieldrin, Endrin

Decision: Do Not List

Weight of Evidence: These pollutants are being considered for placement on the section 303(d) list under section 3.6 of the Listing Policy. Under section 3.6 two lines of evidence are necessary to assess listing status. One line of evidence documents toxicity and the other line of evidence associates the observed toxicity with a pollutant or pollutants

Two lines of evidence are available in the administrative record to assess this pollutant. Toxicity is observed but none of the samples exceeded any of the sediment 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 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 66 samples exceeded the dieldrin or endrin sediment quality guidelines and these do 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-Sediment

Beneficial Use:

MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat

Matrix:

Sediment

***Water Quality Objective/
Water Quality Criterion:***

The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).

Evaluation Guideline:

The ERM sediment quality guideline for dieldrin is 6 ng/g (ppb) dry weight (Long et al., 1995)

The sediment quality guideline for endrin is 0.76 ug/g (ppm) dry weight (USEPA, 1993).

Data Used to Assess Water Quality: None of 66 samples exceeded the sediment quality guidelines for each pollutant (Bay and Greenstein, 2003).

Spatial Representation: Samples were collected at stations 36 through 72 in Huntington Harbor .

Temporal Representation: Samples were collected on 08/07/2001 and on 02/27/2003.

Environmental Conditions: Samples were collected during dry season (8/7/01) and wet season (2/27/03).

Data Quality Assessment: SARWQCB followed the Bight 1998 QAPP developed by SCCWRP.

QA/QC Equivalent: Quality control data was presented.

Numeric Line of Evidence Toxicity

Beneficial Use: ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* Narrative Water Quality Objective: " The concentration of toxic pollutants in the water column, sediment or biota shall not adversely affect beneficial use."

Data Used to Assess Water Quality: Sixty-three of 66 samples exceeded the 90 percent of the minimum significant difference for test species Eohaustorius estuarius. Thirty-two of 33 samples exhibited toxicity in the dry season (8/7/01 and 8/8/03), and 31 of 33 exhibited toxicity in the wet season (2/24/03); (Bay & Greenstein, 2003).

Spatial Representation: Samples were collected at stations 36 through 72 in Huntington Harbour.

Temporal Representation: Samples were collected on 8/7/01, 8/8/01 and 2/24/03.

Environmental Conditions: Samples were collected during wet (8/7/01, 8/8/01) and dry season (2/24/03).

Data Quality Assessment: SARQWCB followed the Bight 1998 QAPP developed by SCCWRP.

Region 8

Water Segment: Huntington Harbour

Pollutant: Exotic Species

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. The pollutant does not 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. The invasive aquatic plant, *Caulerpa taxifolia* has not been detected in Huntington Harbour since 2002. Eradication and monitoring of infected sites has been ongoing since it was discovered in July 2000. So the pollutant does not exceed 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:

Numeric Line of Evidence Population/Community Degradation

Beneficial Use: MA - Marine Habitat

Matrix: Water

**Water Quality Objective/
Water Quality Criterion:** Toxic Substances: The concentrations of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses.

Data Used to Assess Water Quality: *Caulerpa taxifolia* was discovered in July 2000 at Huntington Harbour near Long Beach, CA. Intensive monitoring and surveillance of infested waters has been ongoing. Infested areas have been contained and treated in the past. Since 2002 no *Caulerpa* has been detected in Huntington Harbour (Anderson, 2005).

Spatial Representation: Huntington Harbour near Long Beach, CA.

Temporal Representation: From July 2000 to 2002. Currently no Caulerpa has been detected in Huntington Harbour.

Environmental Conditions: Changes in relative diversity and abundance of native species may also be driven by habitat alteration, flow changes, or hydromodification.

Data Quality Assessment: PowerPoint presentation by Lars W.J. Anderson, USDA Ag. Research Svc., Davis, CA.

Region 8

Water Segment: Newport Bay, Lower

Pollutant: 2-Methylnaphthalene, Antimony, Benzo(a)pyrene (PAHs), Chrysene (C1-C4), Endrin, Lead, Polycyclic Aromatic Hydrocarbons (PAHs) (Aquatic Ecosystems), Pyrene, Silver, Zinc

Decision: Do Not List

Weight of Evidence: These pollutants are being considered for placement on the section 303(d) list under section 3.6 of the Listing Policy. Under section 3.6 two lines of evidence are necessary to assess listing status. Eleven pollutant specific lines of evidence are available in the administrative record to assess each pollutant. None of the evaluated pollutants exceeded pollutant specific sediment quality guidelines but sediment toxicity was documented in this water body.

Currently, Newport Bay, lower, is listed for priority organics, pesticides and metals. It is not possible, in a general listing, to determine which specific pollutant is causing or contributing to a water quality impacts. There is sufficient justification for removing the general listings for organics, pesticides, and metals from the 303(d) list and replace these general listings with the specific pollutants when found to be exceeding.

Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification for placing these specific priority pollutants 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 11 pollutant specific lines of evidence exceeded sediment quality guidelines but sediment toxicity has been documented in this water body.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are 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. There is sediment toxicity in this water body but it is unknown if any of these pollutants cause or contribute to the toxicity documented.

Lines of Evidence:

Numeric Line of Evidence Toxicity

Beneficial Use: MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat

Matrix: Sediment

Water Quality Objective/ Narrative Water Quality Objective: The concentration of toxic substances in the

<i>Water Quality Criterion:</i>	water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
<i>Data Used to Assess Water Quality:</i>	Toxicity Results (Bay and Greenstein, 2003). -Five of 15 sediment samples exhibited significantly toxic to amphipods. -Fifteen of 15 pore water samples collected had significant effect on Purple Urchin larval development. -One of 15 sediment water interface samples were significantly toxic to Purple Sea Urchin. -Five of 15 sediment water interface samples were significantly toxic to the fertilization test.
<i>Spatial Representation:</i>	Samples were collected from 13 sites.
<i>Temporal Representation:</i>	Samples were collected in September 1994, June 1996, and August 1997.
<i>Data Quality Assessment:</i>	Study was conducted by the California Department of Fish and Game.
<i>QA/QC Equivalent:</i>	QA/QC information is contained in the document

<i>Numeric Line of Evidence</i>	Pollutant-Sediment
<i>Beneficial Use:</i>	MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses.
<i>Evaluation Guideline:</i>	The PEL sediment quality guideline for silver is 1.77 ug/g (ppm) dry weight (MacDonald et al., 1996)
<i>Data Used to Assess Water Quality:</i>	None of three samples exceeded the PEL-SQG (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected in the Lower Bay at sites 2137, 2136, and 2142.
<i>Temporal Representation:</i>	Samples were collected in May 2001.
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.

<i>Numeric Line of Evidence</i>	Pollutant-Sediment
<i>Beneficial Use:</i>	MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses.
<i>Evaluation Guideline:</i>	The PEL sediment quality guideline for 2-methylnaphthalene is 201.3 ng/g (ppb) dry weight (MacDonald et al., 1996).
<i>Data Used to Assess Water Quality:</i>	None of 3 samples exceeded the PEL-SQG (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected in the Lower Bay at sites 2137, 2136, and 2142.
<i>Temporal Representation:</i>	Samples were collected in May 2002.

Data Quality Assessment: SCCWRP QAPP was used.

Numeric Line of Evidence Pollutant-Sediment
Beneficial Use: MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat
Matrix: Sediment
*Water Quality Objective/
Water Quality Criterion:* The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses.
Evaluation Guideline: The PEL sediment quality guideline for pyrene is 1397 ng/g (ppb) dry weight (MacDonald et al., 1996)
Data Used to Assess Water Quality: None of 3 samples exceeded the PEL (Bay and Greenstein, 2003).
Spatial Representation: Samples were collected in the Lower Bay at sites 2137, 2136, and 2142.
Temporal Representation: Samples were collected in May 2002.
Data Quality Assessment: SCCWRP QAPP was used.

Numeric Line of Evidence Pollutant-Sediment
Beneficial Use: MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat
Matrix: Sediment
*Water Quality Objective/
Water Quality Criterion:* The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses.
Evaluation Guideline: The PEL sediment quality guideline for Chrysene is 846 ng/g (ppb) dry weight (MacDonald et al., 1996).
Data Used to Assess Water Quality: None of three samples exceeded the PEL (Bay and Greenstein, 2003).
Spatial Representation: Samples were collected in the Lower Bay at sites 2137, 2136, and 2142.
Temporal Representation: Samples were collected in May 2002.
Data Quality Assessment: SCCWRP QAPP was used.

Numeric Line of Evidence Pollutant-Sediment
Beneficial Use: MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat
Matrix: Sediment
*Water Quality Objective/
Water Quality Criterion:* The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses.
Evaluation Guideline: The ERM sediment quality guideline for antimony is 25 ug/g (ppm) dry weight (Long et. al., 1995).

Data Used to Assess Water Quality: None of 3 samples exceeded the ERM-SQG (Bay and Greenstein, 2003).
Spatial Representation: Samples were collected in the Lower Bay at sites 2137, 2136, and 2142.
Temporal Representation: Samples were collected in May 2002.
Data Quality Assessment: SCCWRP QAPP was used.

Numeric Line of Evidence Pollutant-Sediment
Beneficial Use: MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat
Matrix: Sediment
Water Quality Objective/ Water Quality Criterion: The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses.
Evaluation Guideline: The PEL sediment quality guideline for lead is 112.2 ug/g (ppm) dry weight (MacDonald et al., 1996)
Data Used to Assess Water Quality: None of 3 samples exceeded the PEL-SQG (Bay and Greenstein, 2003).
Spatial Representation: Samples were collected in the Lower Bay at sites 2137, 2136, and 2142.
Temporal Representation: Samples were collected in May 2001.
Data Quality Assessment: SCCWRP QAPP was used.

Numeric Line of Evidence Pollutant-Sediment
Beneficial Use: MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat
Matrix: Sediment
Water Quality Objective/ Water Quality Criterion: The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses.
Evaluation Guideline: The PEL sediment quality guideline for silver is 1.77 ug/g (ppm) dry weight (MacDonald et al., 1996)
Data Used to Assess Water Quality: None of three samples exceeded the PEL-SQG (Bay and Greenstein, 2003).
Spatial Representation: Samples were collected in the Lower Bay at sites 2137, 2136, and 2142.
Temporal Representation: Samples were collected in May 2001.
Data Quality Assessment: SCCWRP QAPP was used.

Numeric Line of Evidence Pollutant-Sediment
Beneficial Use: MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat
Matrix: Sediment

<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses.
<i>Evaluation Guideline:</i>	The ERM sediment quality guideline for zinc is 410 ug/g (ppm) dry weight (Long et al., 1995).
<i>Data Used to Assess Water Quality:</i>	None of 3 samples exceeded the ERM-SQG (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected in the Lower Bay at sites 2137, 2138, and 2142.
<i>Temporal Representation:</i>	Samples were collected in May 2002.
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.

<i>Numeric Line of Evidence</i>	Pollutant-Sediment
<i>Beneficial Use:</i>	MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses.
<i>Evaluation Guideline:</i>	The PEL sediment quality guideline for benzo[a]pyrene is 763.0 ng/g (ppb) dry weight (MacDonald et al., 1996) .
<i>Data Used to Assess Water Quality:</i>	None of 3 samples exceeded the PEL (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected in the Lower Bay at sites 2137, 2136, and 2142.
<i>Temporal Representation:</i>	Samples were collected in May 2002.
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.

<i>Numeric Line of Evidence</i>	Pollutant-Sediment
<i>Beneficial Use:</i>	MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses.
<i>Evaluation Guideline:</i>	The sediment quality guideline for total detectable PAHs is 1800 ug/g (ppm) dry weight (Fairey et al., 2001).
<i>Data Used to Assess Water Quality:</i>	None of 3 samples exceeded the guideline (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected in the Lower Bay at sites 2137, 2136, and 2142.
<i>Temporal Representation:</i>	Samples were collected in May 2002.
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.

<i>Numeric Line of Evidence</i>	Pollutant-Sediment
<i>Beneficial Use:</i>	MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses.
<i>Evaluation Guideline:</i>	The sediment quality guidelines for endrin is 0.76 ug/g (ppm) OC dry weight (USEPA, 1993).
<i>Data Used to Assess Water Quality:</i>	None of 3 samples exceeded the guideline (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected in the Lower Bay at sites 2137, 2136, and 2142.
<i>Temporal Representation:</i>	Samples were collected in May 2002.
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.

Region 8

Water Segment: Newport Bay, Lower

Pollutant: Arsenic

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 two lines of evidence are necessary to assess listing status.

Currently, Newport Bay, lower, is listed for metals. It is not possible, in a general listing, to determine which specific metal could be causing or contributing to a water quality impacts. There is sufficient justification for removing the general listings for metals from the 303(d) list and replace these general listings with the specific metals when found to be exceeding.

Two lines of evidence are available in the administrative record to assess this pollutant. Although toxicity was documented in this water body none of the samples exceed the sediment quality guideline.

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 3 samples exceeded the ERM sediment quality guideline (Long et al., 1995), 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-Sediment

Beneficial Use: CM - Commercial and Sport Fishing (CA), MA - Marine Habitat, NA - Navigation, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, SH - Shellfish Harvesting, SP - Fish Spawning, WI - Wildlife Habitat

Matrix: Sediment

<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses.
<i>Evaluation Guideline:</i>	The ERM sediment quality guideline for arsenic is 70 ug/g (ppm) dry weight (Long et. el., 1995).
<i>Data Used to Assess Water Quality:</i>	None of 3 samples exceeded the ERM sediment quality guideline (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected at the Lower Newport Bay at stations 2137, 2136, and 2142.
<i>Temporal Representation:</i>	Samples were collected in May 2002.
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.

<i>Numeric Line of Evidence</i>	Toxicity
<i>Beneficial Use:</i>	MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Narrative Water Quality Objective: The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
<i>Data Used to Assess Water Quality:</i>	Toxicity Results (Bay and Greenstein, 2003). -Five of 15 sediment samples exhibited significantly toxic to amphipods. -Fifteen of 15 pore water samples collected had significant effect on Purple Urchin larval development. -One of 15 sediment water interface samples were significantly toxic to Purple Sea Urchin. -Five of 15 sediment water interface samples were significantly toxic to the fertilization test.
<i>Spatial Representation:</i>	Samples were collected from 13 sites.
<i>Temporal Representation:</i>	Samples were collected in September 1994, June 1996, and August 1997.
<i>Data Quality Assessment:</i>	Study was conducted by the California Department of Fish and Game.
<i>QA/QC Equivalent:</i>	QA/QC information is contained in the document

Region 8

Water Segment: Newport Bay, Lower

Pollutant: Arsenic

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.

Currently, Newport Bay, lower, is listed for metals. It is not possible, in a general listing, to determine which specific metal could be causing or contributing to a water quality impacts. There is sufficient justification for removing the general listings for metals from the 303(d) list and replace these general listings with the specific metals when found to be exceeding.

One line of evidence is available in the administrative record to assess this pollutant. None of the samples exceed the USEPA screening value.

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 74 fish tissue samples exceeded the screening value. Ten additional fish tissue samples analyzed for inorganic arsenic concentrations (ranged from 0.003 mg/kg to 0.020 mg/kg) were also found to be below the USEPA guideline 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:

CM - Commercial and Sport Fishing (CA), SH - Shellfish Harvesting

Matrix:

Tissue

*Water Quality Objective/
Water Quality Criterion:*

Toxic Substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels harmful to humans.

Evaluation Guideline:

An applicable tissue screening value is not available for total arsenic in tissue.

Analytical measurements reported as total arsenic do not provide a viable means of assessing arsenic in tissue for the protection of human health. The screening value of 1.2 ppm wet weight for inorganic arsenic is considered the most reliable risk-based screening value when compared with inorganic arsenic or as a percentage of total arsenic when inorganic arsenic data is not available. To be conservative and consistent with other agencies, USEPA finds acceptable to assume that inorganic arsenic comprises 10 percent of total arsenic for finfish and 60 percent of total arsenic in shellfish tissue.

Data Used to Assess Water Quality:

None of the 74 fish tissue samples exceeded the screening value. Fifty muscle tissue from recreational fish and 24 whole body tissue from forage fish were analyzed in winter and summer of 2000 to 2002. Ten additional fish tissue samples analyzed for inorganic arsenic concentrations (ranged from 0.003 mg/kg to 0.020 mg/kg) were also found to be below the USEPA guideline (none exceeded); (TSMP, 2000).

Spatial Representation:

Samples were collected in the Outer Lower Bay and in the Inner Lower Bay.

Temporal Representation:

Samples were collected in November 2000-January 2001, June-July 2001, and March-April & August-September 2002.

Data Quality Assessment:

SCCWRP Quality Assurance Plan

QA/QC Equivalent:

The report shows evidence of lab QC such as spikes and replicates.

Region 8

Water Segment: Newport Bay, Lower

Pollutant: Cadmium

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 the listing status.

Currently, Newport Bay, lower, is listed for metals. It is not possible, in a general listing, to determine which specific metal could be causing or contributing to a water quality impacts. There is sufficient justification for removing the general listings for metals from the 303(d) list and replace these general listings with the specific metals when found to be exceeding.

Three lines of evidence (one for pollutant in tissue, one for pollutant in sediment, and one for sediment toxicity) available in the administrative record to assess this pollutant. None of the tissue samples exceeded the OEHHA screening value and none of three sediment samples collected exceeded PEL guidelines. Sediment toxicity has been documented within in this water body

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 tissue and sediment data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The tissue and sediment data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. None of the 17 tissue samples taken exceed the OEHHA screening value and none of 3 samples exceeded the sediment quality guideline. Sediment toxicity has been documented in the water body. But the tissue and sediment samples do 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. There is sediment toxicity but it is unknown if the toxicity is caused or contributed by this pollutant

Lines of Evidence:

Numeric Line of Evidence

Pollutant-Sediment

Beneficial Use: MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat

Matrix: Sediment

Evaluation Guideline: For Marine and Estuary Sediment, the probable effects level (PEL) for cadmium is 4.21 ug/g (ppm) dry weight (MacDonald et. al., 1996).

Data Used to Assess Water Quality: None of 3 samples exceeded the PEL sediment quality guideline (Bay and Greenstein, 2003).

Spatial Representation: Samples were collected at Lower Newport Bay at site numbers 2137, 2136, and 2142.

Temporal Representation: Samples were collected in May 2002.

Data Quality Assessment: SCCWRP Quality Assurance Plan.

Numeric Line of Evidence Pollutant-Tissue

Beneficial Use: CM - Commercial and Sport Fishing (CA), SH - Shellfish Harvesting

Matrix: Tissue

Water Quality Objective/ Water Quality Criterion: Toxic Substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels harmful to humans.

Evaluation Guideline: OEHHA standard for cadmium (for fish consumption) is 3 ppm (OEHHA, 1999).

Data Used to Assess Water Quality: None of 17 samples exceeded the OEHHA screening value for the protection of human health from consumption of fish and shellfish (TSMP, 2000).

Spatial Representation: Eight samples were collected in the outer and 9 in the inner of Lower Newport Bay.

Temporal Representation: Samples were collected in March-April & August-September 2002.

Data Quality Assessment: SCCWRP Quality Assurance Plan.

QA/QC Equivalent: The report shows evidence of lab QC such as spikes and replicates.

Numeric Line of Evidence Toxicity

Beneficial Use: MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat

Matrix: Sediment

Water Quality Objective/ Water Quality Criterion: Narrative Water Quality Objective: The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).

Data Used to Assess Water Quality: Toxicity Results (Bay and Greenstein, 2003).
 -Five of 15 sediment samples exhibited significantly toxic to amphipods.
 -Fifteen of 15 pore water samples collected had significant effect on Purple Urchin larval development.
 -One of 15 sediment water interface samples were significantly toxic to Purple Sea Urchin.
 -Five of 15 sediment water interface samples were significantly toxic to the

	fertilization test.
<i>Spatial Representation:</i>	Samples were collected from 13 sites.
<i>Temporal Representation:</i>	Samples were collected in September 1994, June 1996, and August 1997.
<i>Data Quality Assessment:</i>	Study was conducted by the California Department of Fish and Game.
<i>QA/QC Equivalent:</i>	QA/QC information is contained in the document

Region 8

Water Segment: Newport Bay, Lower

Pollutant: Chlordane

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.

Currently, Newport Bay, lower, is listed for pesticides. It is not possible, in a general listing, to determine which specific pesticide could be causing or contributing to a water quality impacts. There is sufficient justification for removing the general listings for pesticides from the 303(d) list and replace these general listings with the specific pesticides when found to be exceeding.

One line of evidence is available in the administrative record to assess this pollutant. None of the tissue samples exceed the OEHHA screening value.

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

This conclusion is based on the staff findings that:

1. The tissue data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The tissue data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. None of 51 tissue samples taken exceed the chlordane screening value 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.
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 not exceeded.

Lines of Evidence:

Numeric Line of Evidence

Pollutant-Tissue

Beneficial Use:

CM - Commercial and Sport Fishing (CA), SH - Shellfish Harvesting

Matrix:

Tissue

***Water Quality Objective/
Water Quality Criterion:***

The OEHHA screening value is 30 ug/kg (ppb) wet weight (OEHHA, 1999).

Data Used to Assess Water Quality: None of 51 samples exceeded the OEHHA screening value (TSMP, 2000).

Spatial Representation: Forty samples were in the outer and 11 from the inner Lower Newport Bay.

Temporal Representation: Samples were collected in November 2000-January 2001, June-July 2001, and March-April & August-September 2002.

Data Quality Assessment: SCCWRP QAPP was used.

Region 8

Water Segment: Newport Bay, Lower

Pollutant: Dibenz[a,h]anthracene

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 two lines of evidence are necessary to assess listing status. One line of evidence documents toxicity and the other line of evidence associates the observed toxicity with a pollutant or pollutants

Currently, Newport Bay, lower, is listed for organics. It is not possible, in a general listing, to determine which specific organic pollutant could be causing or contributing to a water quality impacts. There is sufficient justification for removing the general listings for organics from the 303(d) list and replace these general listings with the specific organics when found to be exceeding.

Two lines of evidence are available in the administrative record to assess this pollutant. Toxicity is observed but none of the samples collected exceeded the sediment quality guideline.

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. None of 3 samples exceeded the 260 ng/g (dry weight) ERM sediment quality guideline.
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-Sediment

Beneficial Use: MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat

Matrix: Sediment

**Water Quality Objective/
Water Quality Criterion:** The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses.

<i>Evaluation Guideline:</i>	Dibenz[a,h]anthracene sediment ERM of 260 ng/g dw (Long et al., 1995)
<i>Data Used to Assess Water Quality:</i>	None of three samples exceeded the ERM sediment quality guideline (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected in the Lower Newport Bay at sites 2137, 2136, and 2142.
<i>Temporal Representation:</i>	Samples were collected in May 2002.
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.

<i>Numeric Line of Evidence</i>	Toxicity
<i>Beneficial Use:</i>	MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Narrative Water Quality Objective: The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
<i>Data Used to Assess Water Quality:</i>	Toxicity Results (Bay and Greenstein, 2003). -Five of 15 sediment samples exhibited significantly toxic to amphipods. -Fifteen of 15 pore water samples collected had significant effect on Purple Urchin larval development. -One of 15 sediment water interface samples were significantly toxic to Purple Sea Urchin. -Five of 15 sediment water interface samples were significantly toxic to the fertilization test.
<i>Spatial Representation:</i>	Samples were collected from 13 sites.
<i>Temporal Representation:</i>	Samples were collected in September 1994, June 1996, and August 1997.
<i>Data Quality Assessment:</i>	Study was conducted by the California Department of Fish and Game.
<i>QA/QC Equivalent:</i>	QA/QC information is contained in the document

Region 8

Water Segment: Newport Bay, Lower

Pollutant: Dieldrin

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under sections 3.5 and 3.6 of the Listing Policy. Under section 3.5 and 3.6 a single line of evidence is necessary to assess listing status. Multiple lines of evidence are available in the administrative record to assess this pollutant. None of the tissue samples exceed the OEHHA screening value and none of the sediment samples exceeded the sediment quality guidelines. There is sediment toxicity documented in this water body, however, it does not appear to be linked to this pollutant.

Currently, Newport Bay, lower, is listed for pesticides. It is not possible, in a general listing, to determine which specific pesticide could be causing or contributing to a water quality impacts. There is sufficient justification for removing the general listings for pesticides from the 303(d) list and replace these general listings with the specific pesticides when found to be exceeding.

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

This conclusion is based on the staff findings that:

1. The tissue and sediment data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The tissue and sediment data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. None of 50 tissue samples taken exceed the OEHHA screening value and none of the 16 sediment samples exceeded the dieldrin dry weight ERM sediment quality guideline. These samples do not exceed the allowable frequency listed in Table 3.1 of the Listing Policy and do not appear to be linked to the sediment toxicity.
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), SH - Shellfish Harvesting

Matrix: Tissue

Water Quality Objective/ Toxic substances shall not be discharged at levels that will bioaccumulate in

<i>Water Quality Criterion:</i>	aquatic resources to levels harmful to humans.
<i>Evaluation Guideline:</i>	The OEHHA screening value dieldrin is 2.0 ug/kg (ppb) wet weight (OEHHA, 1999).
<i>Data Used to Assess Water Quality:</i>	None of 50 samples exceeded the OEHHA standard (TSMP, 2003).
<i>Spatial Representation:</i>	Thirty-nine samples were collected in the outer Lower and 11 in inner Newport Bay NPDES monitoring stations.
<i>Temporal Representation:</i>	Sample were collected in November 2000-January 2001, June-July 2001, and March-April and August-September 2002.
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.

<i>Numeric Line of Evidence</i>	Pollutant-Sediment
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA), MA - Marine Habitat, NA - Navigation, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, SH - Shellfish Harvesting, SP - Fish Spawning, WI - Wildlife Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses.
<i>Evaluation Guideline:</i>	The ERM sediment quality guideline is 8.0 ng/g (ppb) dry weight (Long et al., 1995).
<i>Data Used to Assess Water Quality:</i>	None of 16 samples exceeded the ERM-SQG (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected in the Lower Newport Bay at NPDES monitoring stations (2137, 2136, and 2142). Samples were detected below the detection limit.
<i>Temporal Representation:</i>	Samples were collected in May 2002.
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.
<i>QA/QC Equivalent:</i>	QA/QC information is included in the document.

<i>Numeric Line of Evidence</i>	Toxicity
<i>Beneficial Use:</i>	MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Narrative Water Quality Objective: The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
<i>Data Used to Assess Water Quality:</i>	Toxicity Results (Bay and Greenstein, 2003). -Five of 15 sediment samples exhibited significantly toxic to amphipods. -Fifteen of 15 pore water samples collected had significant effect on Purple Urchin larval development. -One of 15 sediment water interface samples were significantly toxic to Purple

Sea Urchin.

-Five of 15 sediment water interface samples were significantly toxic to the fertilization test.

Spatial Representation:

Samples were collected from 13 sites.

Temporal Representation:

Samples were collected in September 1994, June 1996, and August 1997.

Data Quality Assessment:

Study was conducted by the California Department of Fish and Game.

QA/QC Equivalent:

QA/QC information is contained in the document

Region 8

Water Segment: Newport Bay, Lower

Pollutant: Mercury

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under sections 3.5, and 3.6 of the Listing Policy. Under section 3.6 a single line of evidence is necessary to assess listing status.

Currently, Newport Bay (lower) is listed for metals. It is not possible, in a general listing, to determine which specific pollutant is causing or contributing to a water quality impact. There is sufficient justification for removing the general listings for metals from the 303(d) list and replace these general listings with the specific pollutants when found to be exceeding.

Three lines of evidence are available in the administrative record to assess this pollutant. Based on section 3.5 and 3.6, the site does not have exceedances in tissue or sediment. Sediment toxicity has been documented in this water body but the pollutant is not likely to cause or contribute to the toxic effect. None of the samples exceed the water quality objective.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of not 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 50 samples exceeded the mercury wet weight screening value (OEHHA, 1999), and none of the 3 samples exceeded the dry weight sediment quality guideline (PTI Environmental Services, 1991). These samples do 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 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-Sediment

Beneficial Use: MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat

Matrix: Sediment

<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses.
<i>Evaluation Guideline:</i>	The sediment quality guideline for mercury is 2.1 ug/g (ppm) dry weight (PTI Environmental Services, 1991).
<i>Data Used to Assess Water Quality:</i>	None of the 3 samples exceeded the sediment quality guideline. However, the sample collected at site 2137 was detected at 2.08 ppm (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected at the Lower Newport Bay at stations 2137, 2136, and 2142.
<i>Temporal Representation:</i>	Samples were collected in May 2002.
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.

<i>Numeric Line of Evidence</i>	Pollutant-Tissue
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA), SH - Shellfish Harvesting
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	Toxic substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels harmful to humans.
<i>Evaluation Guideline:</i>	The OEHHA screening value for mercury is 0.3 mg/kg (ppm) wet weight (OEHHA, 1999).
<i>Data Used to Assess Water Quality:</i>	None of the 51 samples exceeded the OEHHA screening value (TSMP, 2000).
<i>Spatial Representation:</i>	Forty samples were collected in the outer and 11 samples in the inner of Lower Newport Bay.
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.

<i>Numeric Line of Evidence</i>	Toxicity
<i>Beneficial Use:</i>	MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Narrative Water Quality Objective: The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
<i>Data Used to Assess Water Quality:</i>	Toxicity Results (Bay and Greenstein, 2003). -Five of 15 sediment samples exhibited significantly toxic to amphipods. -Fifteen of 15 pore water samples collected had significant effect on Purple Urchin larval development. -One of 15 sediment water interface samples were significantly toxic to Purple Sea Urchin. -Five of 15 sediment water interface samples were significantly toxic to the fertilization test.
<i>Spatial Representation:</i>	Samples were collected from 13 sites.
<i>Temporal Representation:</i>	Samples were collected in September 1994, June 1996, and August 1997.

Data Quality Assessment:

Study was conducted by the California Department of Fish and Game.

QA/QC Equivalent:

QA/QC information is contained in the document

Region 8

Water Segment: Newport Bay, Lower

Pollutant: Selenium

Decision: Do Not List

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

Currently, Newport Bay, lower, is listed for metals. It is not possible, in a general listing, to determine which specific metal could be causing or contributing to a water quality impacts. There is sufficient justification for removing the general listings for metals from the 303(d) list and replace these general listings with the specific metals when found to be exceeding.

One line of evidence is available in the administrative record to assess this pollutant. None of the tissue samples exceed the OEHHA screening value.

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 from the section 303(d) list.

This conclusion is based on the staff findings that:

1. The tissue data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The tissue data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. None of 51 tissue samples taken exceed the selenium screening value 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:

CM - Commercial and Sport Fishing (CA), SH - Shellfish Harvesting

Matrix:

Tissue

*Water Quality Objective/
Water Quality Criterion:*

The OEHHA standard for fish consumption is 2 ppm (OEHHA, 1999).

*Data Used to Assess Water
Quality:*

None of the 51 fish tissue samples exceeded the OEHHA screening value (TSMP, 2002).

Spatial Representation: Forty samples were collected in the Outer Lower Bay and 11 in the Inner Lower Bay.

Temporal Representation: Samples were collected in November 2000-January 2001, June-July 2001, and March-April & August-September 2002.

Data Quality Assessment: SCCWRP QAPP was used.

QA/QC Equivalent: The report shows evidence of lab QC such as spikes and replicates.

Region 8

Water Segment:	Newport Bay, Upper (Ecological Reserve)
Pollutant:	2-Methylnaphthalene, Antimony, Benzo(a)pyrene (PAHs), Chrysene (C1-C4), Dieldrin, Endrin, Phenanthrene, Polycyclic Aromatic Hydrocarbons (PAHs) (Aquatic Ecosystems), Pyrene, Silver
Decision:	Do Not List
Weight of Evidence:	<p>These pollutants are being considered for placement on the section 303(d) list under section 3.6 of the Listing Policy. Under section 3.6 two lines of evidence are necessary to assess listing status.</p> <p>Currently, Newport Bay, Upper, is listed for priority organics, pesticides and metals (approximately 120 on the current USEPA priority pollutant list). It is not possible in a general listing to determine which specific pollutant is causing or contributing to a water quality impacts. There is sufficient justification for removing the general listings for organics, pesticides, and metals from the 303(d) list and replace these general listings with the specific pollutants found to be exceeding.</p> <p>Ten lines of evidence are available in the administrative record to assess each pollutant. None of the evaluated pollutants exceeded pollutant specific sediment quality guidelines. Although sediment toxicity has been documented in this water body, it cannot be associated with any of these pollutants.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is insufficient justification in favor of placing these specific priority pollutants on the section 303(d) list.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.3. None of 9 lines of evidence exceeded sediment quality guidelines for these pollutants. Therefore, a link between the sediment toxicity in this water body and these pollutants cannot be made.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-Sediment

Beneficial Use:

BI - Preserva.of Bio.Hab.of Spec.Signif., ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WE - Wetland Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).

Evaluation Guideline: The PEL sediment quality guidelines for phenanthrene is 543.5 ug/g (ppm) dry weight (MacDonald et al., 1996).

Data Used to Assess Water Quality: None of 2 samples exceeded the PEL-SQG (Bay and Greenstein, 2003).

Spatial Representation: Samples were collected in the Upper Bay at site NB10.

Temporal Representation: One sample was collected on each sampling event (November 2001 and March 2002).

Data Quality Assessment: SCCWRP QAPP was used.

Numeric Line of Evidence Pollutant-Sediment

Beneficial Use: BI - Preserva.of Bio.Hab.of Spec.Signif., ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WE - Wetland Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).

Evaluation Guideline: The ERM sediment quality guideline antimony is 25 ug/g (ppm) dry weight (Long et al., 1995).

Data Used to Assess Water Quality: None of 2 samples exceeded the ERM-SQG (Bay and Greenstein, 2003).

Spatial Representation: Sample were collected in the Upper Bay at site NB10.

Temporal Representation: One sample each was collected in November 2001 and March 2002.

Data Quality Assessment: SCCWRP QAPP was used.

Numeric Line of Evidence Pollutant-Sediment

Beneficial Use: BI - Preserva.of Bio.Hab.of Spec.Signif., ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WE - Wetland Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).

Evaluation Guideline: The PEL sediment quality guidelines for 2-methylnaphthalene is 201.3 ng/g (ppm) dry weight (MacDonald et al., 1996).

Data Used to Assess Water Quality: None of 2 samples exceeded the PEL-SQG (Bay and Greenstein, 2003).

Spatial Representation: Samples were collected in the Upper Bay at NB10.

Temporal Representation: One sample was collected on each sampling event (November 2001 and March

2002).

Data Quality Assessment: SCCWRP QAPP was used.

Numeric Line of Evidence Pollutant-Sediment

Beneficial Use: BI - Preserva.of Bio.Hab.of Spec.Signif., ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WE - Wetland Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).

Evaluation Guideline: The PEL sediment quality guidelines for Benzo[a]pyrene 763.2 ug/kg (ppb) dry weight (Fairey et al., 2001).

Data Used to Assess Water Quality: None of 2 samples exceeded the sediment quality guidelines (Bay and Greenstein, 2003).

Spatial Representation: Samples were collected in the Upper Bay at NB10.

Temporal Representation: One sample was collected on each sampling event (November 2001 and March 2002).

Data Quality Assessment: SCCWRP QAPP was used.

Numeric Line of Evidence Pollutant-Sediment

Beneficial Use: BI - Preserva.of Bio.Hab.of Spec.Signif., ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WE - Wetland Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).

Evaluation Guideline: The PEL sediment quality guidelines for pyrene is 397 ng/g (ppm) dry weight (MacDonald et al., 1996).

Data Used to Assess Water Quality: None of 2 samples exceeded the PEL-SQG (Bay and Greenstein, 2003).

Spatial Representation: Samples were collected in the Upper Bay at site NB10.

Temporal Representation: One sample was collected on each sampling event (November 2001 and March 2002).

Data Quality Assessment: SCCWRP QAPP was used.

Numeric Line of Evidence Pollutant-Sediment

Beneficial Use: BI - Preserva.of Bio.Hab.of Spec.Signif., ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WE - Wetland Habitat

Matrix: Sediment

<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
<i>Evaluation Guideline:</i>	The PEL sediment quality guidelines for chrysene is 846 ng/g (ppm) dry weight (MacDonald et al., 1996).
<i>Data Used to Assess Water Quality:</i>	None of 2 samples exceeded the PEL-SQG (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected in the Upper Bay at site NB10.
<i>Temporal Representation:</i>	One sample was collected on each sampling event (November 2001 and March 2002).
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.

<i>Numeric Line of Evidence</i>	Pollutant-Sediment
<i>Beneficial Use:</i>	BI - Preserva.of Bio.Hab.of Spec.Signif., ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WE - Wetland Habitat
<i>Matrix:</i>	Sediment
<i>Evaluation Guideline:</i>	The PEL sediment quality guidelines for silver is 1.77 ug/g (ppm) dry weight (MacDonald et. al., 1996).
<i>Data Used to Assess Water Quality:</i>	None of 2 samples exceeded the PEL-SQG (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected in the Upper Bay at NB10.
<i>Temporal Representation:</i>	One sample was collected on each sampling event (November 2001 and March 2002).
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.

<i>Numeric Line of Evidence</i>	Pollutant-Sediment
<i>Beneficial Use:</i>	BI - Preserva.of Bio.Hab.of Spec.Signif., ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WE - Wetland Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
<i>Evaluation Guideline:</i>	The ERM sediment quality guidelines for dieldrin ng/g (ppb) dry weight (Long et al., 1995)
<i>Data Used to Assess Water Quality:</i>	None of 2 samples exceeded the ERM-SQG (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected in the Upper Bay at NB10.
<i>Temporal Representation:</i>	One sample was collected on each sampling event (November 2001 and March 2002).
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.

<i>Numeric Line of Evidence</i>	Pollutant-Sediment
<i>Beneficial Use:</i>	BI - Preserva.of Bio.Hab.of Spec.Signif., ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WE - Wetland Habitat
<i>Matrix:</i>	Sediment
<i>Evaluation Guideline:</i>	The sediment quality guidelines for Endrin is 0.76 (OC) ug/kg (ppb) dry weight (USEPA, 1993).
<i>Data Used to Assess Water Quality:</i>	None of 2 samples exceeded the USEPA guideline (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected in the Upper Bay at NB10.
<i>Temporal Representation:</i>	One sample was collected on each sampling event (November 2001 and March 2002).
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.

<i>Numeric Line of Evidence</i>	Toxicity
<i>Beneficial Use:</i>	MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Narrative Water Quality Objective: The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
<i>Data Used to Assess Water Quality:</i>	Toxicity Results: Five of 15 sediment samples were significant toxic to amphipods. Fifteen of 15 pore water samples collected had significant effect in Purple Urchin larval development. One of 15 sediment water interface samples were was significantly toxic to Purple Sea Urchin. Five of 15 sediment water interface samples were significantly toxic to the fertilization test (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected from 15 sites.
<i>Temporal Representation:</i>	Samples were collected in September 1994, June 1996, and August 1997.
<i>Data Quality Assessment:</i>	Study was conducted by the California Department of Fish and Game.
<i>QA/QC Equivalent:</i>	QA/QC information is contained in the document .

Region 8

Water Segment: Newport Bay, Upper (Ecological Reserve)

Pollutant: Arsenic

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.

Currently, Newport Bay, upper, is listed for metals. It is not possible, in a general listing, to determine which specific metal could be causing or contributing to a water quality impacts. There is sufficient justification for removing the general listings for metals from the 303(d) list and replace these general listings with the specific metals when found to be exceeding.

Five lines of evidence are available in the administrative record to assess this pollutant. None of the samples exceed the USEPA screening value of 1.2 mg/kg for the protection of human health.

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 23 fish tissue total arsenic samples exceeded the USEPA screening value and there were also no exceedances in three additional fish tissue inorganic arsenic samples as well. Sediment and water samples did not exceed the applicable sediment and CTR water column guidelines and this does not exceed the allowable frequency listed in Table 3.1 of the Listing Policy. Although sediment toxicity has been documented in this water body, it cannot be associated with this pollutant.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be 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-Sediment

Beneficial Use: BI - Preserva.of Bio.Hab.of Spec.Signif., ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning

Matrix: Sediment

<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
<i>Evaluation Guideline:</i>	The ERM- sediment quality guideline for arsenic is 70 ug/g (ppm) dry weight (Long et al., 1995)
<i>Data Used to Assess Water Quality:</i>	None of 2 samples exceeded the ERM-SQG (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected in the upper Newport Bay at site NB10.
<i>Temporal Representation:</i>	One sample was collected in each sampling event (November 2001 and March 2002).
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	BI - Preserva.of Bio.Hab.of Spec.Signif., ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	The CRT saltwater chronic criteria for arsenic is 36 ug/L (ppb) (USEPA, 2000). The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
<i>Data Used to Assess Water Quality:</i>	None of 3 samples exceeded the CTR criteria (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected in the Upper Newport Bay at sites NB10. Two samples were water column measurements and one was a surface water interface sample.
<i>Temporal Representation:</i>	Samples were collected in November 2001 and March 2002. One water column sample was collected from each date and the surface water interface sample was collected in November 2001.
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.

<i>Numeric Line of Evidence</i>	Pollutant-Tissue
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA), SH - Shellfish Harvesting
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	Toxic Substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels harmful to humans (SARWQCB, 1995).
<i>Evaluation Guideline:</i>	The USEPA screening value of 1.2 ppm wet weight for inorganic arsenic is considered the most reliable risk-based screening value when compared with inorganic arsenic or as a percentage of total arsenic when inorganic arsenic data is not available. To be conservative and consistent with other agencies, USEPA finds acceptable to assume that inorganic arsenic comprises 10 percent of total arsenic for finfish and 60 percent of total arsenic in shellfish tissue.
<i>Data Used to Assess Water Quality:</i>	None of 3 samples exceeded the USEPA screening value (TSMP, 2000).
<i>Spatial Representation:</i>	Samples were collected in the Outer Newport Bay, Upper.

Temporal Representation: Samples were collected between November 2000 and January 2001.
Data Quality Assessment: SCCWRP QAPP was used.

Numeric Line of Evidence Pollutant-Tissue
Beneficial Use: CM - Commercial and Sport Fishing (CA), SH - Shellfish Harvesting
Matrix: Tissue
*Water Quality Objective/
Water Quality Criterion:* Toxic Substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels harmful to humans (SARWQCB, 1995).
Evaluation Guideline: There is not an applicable tissue screening value available for total arsenic in tissue. Analytical measurements reported as total arsenic do not provide a viable means of assessing arsenic in tissue for the protection of human health. The screening value of 1.2 ppm wet weight for inorganic arsenic is considered the most reliable risk-based screening value when compared with inorganic arsenic or as a percentage of total arsenic when inorganic arsenic data is not available. To be conservative and consistent with other agencies, USEPA finds acceptable to assume that inorganic arsenic comprises 10 percent of total arsenic for finfish and 60 percent of total arsenic in shellfish tissue.
Data Used to Assess Water Quality: None of 23 the samples taken exceeded the inorganic arsenic 10% calculated portion of the total arsenic concentration in tissue (TSMP, 2000).
Spatial Representation: Samples were collected at the Upper Newport Bay in the outer upper and inner upper bay.
Temporal Representation: Samples were collected in November 2000-January 2001, June-July 2001, and March-April & August-September 2002.
Data Quality Assessment: SCCWRP QAPP was used.
QA/QC Equivalent: The report shows evidence of lab QC such as spikes and replicates.

Numeric Line of Evidence Toxicity
Beneficial Use: MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat
Matrix: Sediment
*Water Quality Objective/
Water Quality Criterion:* Narrative Water Quality Objective: The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
Data Used to Assess Water Quality: Toxicity Results: Five of 15 sediment samples were significant toxic to amphipods. Fifteen of 15 pore water samples collected had significant effect in Purple Urchin larval development. One of 15 sediment water interface samples were was significantly toxic to Purple Sea Urchin. Five of 15 sediment water interface samples were significantly toxic to the fertilization test (Bay and Greenstein, 2003).
Spatial Representation: Samples were collected from 15 sites.
Temporal Representation: Samples were collected in September 1994, June 1996, and August 1997.
Data Quality Assessment: Study was conducted by the California Department of Fish and Game.

QA/QC Equivalent:

QA/QC information is contained in the document .

Region 8

Water Segment: Newport Bay, Upper (Ecological Reserve)

Pollutant: Cadmium

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under sections 3.1 and 3.5 of the Listing Policy. Under section 3.1 and 3.5 a single line of evidence is necessary to assess listing status.

Currently, Newport Bay, Upper, is listed for metals. It is not possible, in a general listing, to determine which specific metal is causing or contributing to a water quality impacts. There is sufficient justification for removing the general listings for metals from the 303(d) list and replace these general listings with the specific metals when found to be exceeding.

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 tissue, water column, and sediment data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The tissue, water column, and sediment data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. None of tissue samples taken exceed the cadmium 3 ppm wet weight OEHHA screening value (OEHHA, 1999) none of 3 water column samples exceeded the cadmium CTR saltwater chronic criteria, and none of two samples exceeded the PEL sediment quality guideline. These samples do 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:

BI - Preserva.of Bio.Hab.of Spec.Signif., ES - Estuarine Habitat, MA - Marine Habitat, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, SP - Fish Spawning

Matrix:

Water

***Water Quality Objective/
Water Quality Criterion:***

The CTR for dissolved cadmium, the saltwater (chronic) standard is 9.3 ppb (USEPA, 2000).

	The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
<i>Data Used to Assess Water Quality:</i>	None of 3 samples were in exceedance of the CTR criteria (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected at the Upper Newport Bay at NB 10.
<i>Temporal Representation:</i>	Samples were collected in November 2001 and March 2002. One water column sample was taken on each sampling event (November 2001 and March 2002) and one surface water interface sample was collected in November 2001.
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.

<i>Numeric Line of Evidence</i>	Pollutant-Sediment
<i>Beneficial Use:</i>	BI - Preserva.of Bio.Hab.of Spec.Signif., ES - Estuarine Habitat, MA - Marine Habitat, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, SP - Fish Spawning
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
<i>Evaluation Guideline:</i>	The PEL sediment quality guideline for cadmium is 4.21ppm (MacDonald et al., 1996).
<i>Data Used to Assess Water Quality:</i>	None of 2 samples exceeded the PEL sediment quality guideline (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected at the Upper Newport Bay at NPDES monitoring station NB10.
<i>Temporal Representation:</i>	Samples were collected in November 2001 and March 2002.
<i>Data Quality Assessment:</i>	SCCWRP QAPP

<i>Numeric Line of Evidence</i>	Pollutant-Tissue
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA), SH - Shellfish Harvesting
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	Toxic Substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels harmful to humans (SARWQCB, 1995).
<i>Evaluation Guideline:</i>	The OEHHA screening value for cadmium (fish consumption) is 3 ppm (OEHHA, 1999).
<i>Data Used to Assess Water Quality:</i>	None of 8 samples exceeded the OEHHA screening value. A total of 4 samples were collected in the outer upper and 4 in the inner upper (TSMP, 2000).
<i>Spatial Representation:</i>	Samples were collected in the outer and inner Upper Newport Bay.
<i>Temporal Representation:</i>	Samples were collected in March-April & August-September 2002.
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.

QA/QC Equivalent: The report shows evidence of lab QC such as spikes and replicates.

Numeric Line of Evidence Toxicity

Beneficial Use: MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* Narrative Water Quality Objective: The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).

Data Used to Assess Water Quality: Toxicity Results: Five of 15 sediment samples were significant toxic to amphipods. Fifteen of 15 pore water samples collected had significant effect in Purple Urchin larval development. One of 15 sediment water interface samples were was significantly toxic to Purple Sea Urchin. Five of 15 sediment water interface samples were significantly toxic to the fertilization test (Bay and Greenstein, 2003).

Spatial Representation: Samples were collected from 15 sites.

Temporal Representation: Samples were collected in September 1994, June 1996, and August 1997.

Data Quality Assessment: Study was conducted by the California Department of Fish and Game.

QA/QC Equivalent: QA/QC information is contained in the document .

Region 8

Water Segment: Newport Bay, Upper (Ecological Reserve)

Pollutant: Chlordane

Decision: Do Not List

Weight of Evidence: These pollutants are being considered for listing under sections 3.1 and 3.6 of the Listing Policy. Under sections 3.1 and 3.6 a single line of evidence is necessary to assess listing status.

Currently, Newport Bay, Upper, is listed for pesticides. It is not possible, in a general listing, to determine which specific pollutant is causing or contributing to a water quality impacts. There is sufficient justification for removing the general listings for pesticides from the 303(d) list and replace these general listings with the specific pollutants when found to be exceeding.

None of the combined water column samples exceed the chlordane CTR criteria, and none of the sediment samples exceeded the ERM sediment quality guidelines. Although sediment toxicity has been documented in this water body, it cannot be associated with this pollutant.

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 water and sediment data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The water and sediment data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
3. None of the 4 combined water column samples exceed the chlordane CTR human health consumption protection criteria, and none of the 10 combined sediment samples exceed the ERM sediment quality guideline for total chlordane. Therefore, a link between the sediment toxicity in this water body and this pollutant cannot be made. These samples do 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 are not exceeded.

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Sediment
<i>Beneficial Use:</i>	BI - Preserva.of Bio.Hab.of Spec.Signif., ES - Estuarine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
<i>Evaluation Guideline:</i>	An applicable sediment guideline is not available for gamma chlordane alone, but an ERM for total chlordane of 6 ng/g dw is applicable for the protection of aquatic life.
<i>Data Used to Assess Water Quality:</i>	Five samples were collected. However, the number of exceedances for gamma chlordane cannot be determined because there is no applicable sediment quality guideline available for gamma chlordane by itself (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected at the Upper Newport Bay at stations NB10, NB10b and NB10c.
<i>Temporal Representation:</i>	Samples were collected in November 2001 and March 2002.
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	BI - Preserva.of Bio.Hab.of Spec.Signif., ES - Estuarine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
<i>Evaluation Guideline:</i>	Chlordane CTR criteria for protection of human health consumption of aquatic life is 0.00059 ppb.
<i>Data Used to Assess Water Quality:</i>	Two samples were collected. The exceedances could not be determined, because there is not an water column criteria applicable to gamma chlordane alone (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected in the Upper Newport Bay in the Upper Bay (NB10).
<i>Temporal Representation:</i>	Samples were collected in November 2001 and March 2002.
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.

<i>Numeric Line of Evidence</i>	Pollutant-Sediment
<i>Beneficial Use:</i>	BI - Preserva.of Bio.Hab.of Spec.Signif., CM - Commercial and Sport Fishing (CA), ES - Estuarine Habitat, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, SH - Shellfish Harvesting, SP - Fish Spawning, WI - Wildlife Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/</i>	The concentration of toxic substances in the water column, sediments or biota

<i>Water Quality Criterion:</i>	shall not adversely affect beneficial uses (SARWQCB, 1995).
<i>Evaluation Guideline:</i>	An applicable sediment guideline is not available for alpha chlordane alone but an ERM for total chlordane of 6 ng/g dw is applicable for the protection of aquatic life. .
<i>Data Used to Assess Water Quality:</i>	Five samples were collected. However, the number of exceedances for alpha chlordane cannot be determined because there is no applicable sediment quality guideline available for alpha chlordane by itself (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected at the Upper Newport Bay at stations NB10, NB10b and NB10c.
<i>Temporal Representation:</i>	Samples were collected in November 2001 and March 2002.
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	BI - Preserva.of Bio.Hab.of Spec.Signif., CM - Commercial and Sport Fishing (CA), ES - Estuarine Habitat, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, SH - Shellfish Harvesting, SP - Fish Spawning, WI - Wildlife Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
<i>Evaluation Guideline:</i>	Chlordane CTR criteria for protection of human health consumption of aquatic life is 0.00059 ppb.
<i>Data Used to Assess Water Quality:</i>	Two samples were collected. The exceedances could not be determined, because there is no water column criteria applicable to alpha chlordane alone (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected in the Upper Newport Bay in the Upper Bay (NB10).
<i>Temporal Representation:</i>	Samples were collected in November 2001 and March 2002.
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.

<i>Numeric Line of Evidence</i>	Toxicity
<i>Beneficial Use:</i>	MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Narrative Water Quality Objective: The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
<i>Data Used to Assess Water Quality:</i>	Toxicity Results: Five of 15 sediment samples were significant toxic to amphipods. Fifteen of 15 pore water samples collected had significant effect in Purple Urchin larval development. One of 15 sediment water interface samples were was significantly toxic to Purple Sea Urchin. Five of 15 sediment water interface samples were significantly toxic to the fertilization test (Bay and Greenstein, 2003).

Spatial Representation: Samples were collected from 15 sites.
Temporal Representation: Samples were collected in September 1994, June 1996, and August 1997.
Data Quality Assessment: Study was conducted by the California Department of Fish and Game.
QA/QC Equivalent: QA/QC information is contained in the document .

Region 8

Water Segment:	Newport Bay, Upper (Ecological Reserve)
Pollutant:	Chromium (total)
Decision:	Do Not List
Weight of Evidence:	<p>This pollutant is being considered for listing under sections 2.1 and 3.5 of the Listing Policy. Under section 3.5 a single line of evidence is necessary to assess listing status.</p> <p>Currently, Newport Bay, upper, is listed for metals. It is not possible, in a general listing, to determine which specific metal could be causing or contributing to a water quality impacts. There is sufficient justification for removing the general listings for metals from the 303(d) list and replace these general listings with the specific metals when found to be exceeding.</p> <p>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.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. A tissue screening value 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:	

<i>Numeric Line of Evidence</i>	Pollutant-Tissue
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA), MA - Marine Habitat
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	Toxic Substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels harmful to humans (SARWQCB, 1995).
<i>Evaluation Guideline:</i>	There is no applicable guideline available to assess total chromium in tissue.
<i>Data Used to Assess Water Quality:</i>	Eight samples were collected (TSMP, 2000).
<i>Spatial Representation:</i>	Four samples were collected from the outer upper bay and 4 from the inner upper bay.

Temporal Representation: Samples were collect in March - April and August - September 2002.
Data Quality Assessment: SCCWRP was used.
QA/QC Equivalent: QA/QC samples were collected.

Region 8

Water Segment: Newport Bay, Upper (Ecological Reserve)

Pollutant: Dieldrin

Decision: Do Not List

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

Currently, Newport Bay is listed for pesticides. It is not possible, in a general listing, to determine which specific pollutant is causing or contributing to a water quality impacts. There is sufficient justification for removing the general listings for pesticides from the 303(d) list and replace these general listings with the specific pollutants when found to be exceeding.

This conclusion is based on the staff findings that:

1. The sediment guidelines and tissue 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 the 2 samples exceeded the dry weight ERM sediment quality guideline, and none of 23 samples exceeded the wet weight OEHHA screening value. These do not exceed the allowable frequency listed in Table 3.1 of the Listing Policy. Although sediment toxicity has been documented in this water body, it cannot be associated with this pollutant.
5. 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 applicable water quality standards for the pollutant are not exceeded.

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Toxicity
<i>Beneficial Use:</i>	MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Narrative Water Quality Objective: The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
<i>Data Used to Assess Water Quality:</i>	Toxicity Results: Five of 15 sediment samples were significant toxic to amphipods. Fifteen of 15 pore water samples collected had significant effect in Purple Urchin larval development. One of 15 sediment water interface samples were was significantly toxic to Purple Sea Urchin. Five of 15 sediment water

interface samples were significantly toxic to the fertilization test (Bay and Greenstein, 2003).

Spatial Representation: Samples were collected from 15 sites.
Temporal Representation: Samples were collected in September 1994, June 1996, and August 1997.
Data Quality Assessment: Study was conducted by the California Department of Fish and Game.
QA/QC Equivalent: QA/QC information is contained in the document .

Line of Evidence Pollutant-Sediment
Beneficial Use BI - Preserva.of Bio.Hab.of Spec.Signif., ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered Species, SH - Shellfish Harvesting, SP - Fish Spawning, WI - Wildlife Habitat
Non-Numeric Objective: The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
Evaluation Guideline: The ERM sediment quality guideline for dieldrin is 8 ug/g (ppm) dry weight (Long et al., 1995)
Data Used to Assess Water Quality: None of the 2 sample exceeded the ERM-SQG guideline (Bay and Greenstein, 2003).
Spatial Representation: Samples were collected at NPDES stations in the Upper Newport Bay.
Temporal Representation: Samples were collected in November 2001 and March 2002.

Line of Evidence Pollutant-Tissue
Beneficial Use BI - Preserva.of Bio.Hab.of Spec.Signif., ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered Species, SH - Shellfish Harvesting, SP - Fish Spawning, WI - Wildlife Habitat
Non-Numeric Objective: Toxic Substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels harmful to humans (SARWQCB, 1995).
Evaluation Guideline: The OEHHA screening value for dieldrin is 2.0 ug/kg (ppb) wet weight tissue (OEHHA, 1999).
Data Used to Assess Water Quality: None of the 23 samples exceeded the OEHHA screening value. All samples were non detects. Out of the 23 samples, 19 were collected in the outer Upper Bay and 4 in the inner Upper Bay (Bay and Greenstein, 2003).
Spatial Representation: Samples were collected in the Upper Newport Bay.
Temporal Representation: Samples were collected November 2001 and March 2002.

Region 8

Water Segment: Newport Bay, Upper (Ecological Reserve)

Pollutant: Lead

Decision: Do Not List

Weight of Evidence: 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.

Currently, Newport Bay, upper, is listed for metals. It is not possible, in a general listing, to determine which specific metal could be causing or contributing to a water quality impacts. There is sufficient justification for removing the general listings for metals from the 303(d) list and replace these general listings with the specific metals when found to be exceeding.

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 3 water samples exceeded the CTR and none of the 6 sediment samples exceeded the PEL for this pollutant. Although sediment toxicity has been documented in this water body, it cannot be associated with this pollutant. 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 it cannot be determined if water quality standards have been exceeded.

Lines of Evidence:

Numeric Line of Evidence

Pollutant-Sediment

Beneficial Use:

BI - Preserva.of Bio.Hab.of Spec.Signif., ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat

Matrix:

Sediment

***Water Quality Objective/
Water Quality Criterion:***

The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).

Evaluation Guideline:

112.18 ug/g (dw) [PEL for Marine and Estuarine Sediments].

***Data Used to Assess Water
Quality:***

None of the 6 samples exceeded the sediment criteria for lead (Bay and Greenstein, 2003).

Spatial Representation:

Samples were collected from Upper Bay at sites NB10, NB10-B, and NB10-C

Temporal Representation: Samples were collected in November of 2001, and March of 2002.
Data Quality Assessment: SCCWRP QAPP was used.

Numeric Line of Evidence Pollutant-Water
Beneficial Use: BI - Preserva.of Bio.Hab.of Spec.Signif., ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat
Matrix: Water
*Water Quality Objective/
Water Quality Criterion:* The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
The CTR for saltwater (chronic) for lead is 8.1 ug/L (ppb) (USEPA, 2000).
Data Used to Assess Water Quality: None of the 3 samples exceeded the CTR criteria (Bay and Greenstein, 2003).
Spatial Representation: Samples were collected at the Upper Newport Bay at NB 10.
Temporal Representation: Samples were collected in November 2001 and March 2002. One water column sample was taken on each sampling event (November 2001 and March 2002 and one surface water interface sample was collected in November 2001.
Data Quality Assessment: SCCWRP QAPP was used.

Numeric Line of Evidence Toxicity
Beneficial Use: MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat
Matrix: Sediment
*Water Quality Objective/
Water Quality Criterion:* Narrative Water Quality Objective: The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
Data Used to Assess Water Quality: Toxicity Results: Five of 15 sediment samples were significant toxic to amphipods. Fifteen of 15 pore water samples collected had significant effect in Purple Urchin larval development. One of 15 sediment water interface samples were was significantly toxic to Purple Sea Urchin. Five of 15 sediment water interface samples were significantly toxic to the fertilization test (Bay and Greenstein, 2003).
Spatial Representation: Samples were collected from 15 sites.
Temporal Representation: Samples were collected in September 1994, June 1996, and August 1997.
Data Quality Assessment: Study was conducted by the California Department of Fish and Game.
QA/QC Equivalent: QA/QC information is contained in the document .

Region 8

Water Segment: Newport Bay, Upper (Ecological Reserve)

Pollutant: Mercury

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under sections 2.1 and 3.6 of the Listing Policy. Under section 3.6 a single line of evidence is necessary to assess listing status.

Currently, Newport Bay is listed for metals. It is not possible, in a general listing, to determine which specific pollutant is causing or contributing to a water quality impacts. There is sufficient justification for removing the general listings for metals from the 303(d) list and replace these general listings with the specific pollutants when found to be exceeding.

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 2 water samples exceeded the saltwater CTR; none of 2 sediment samples exceeded the dry weight PEL sediment quality guideline, and none of the 23 tissue samples exceeded the wet weight OEHHA screening value. This does not exceed the allowable frequency listed in Table 4.1 of the Listing Policy.
4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

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

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Tissue
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA), SH - Shellfish Harvesting
<i>Matrix:</i>	Tissue
<i>Water Quality Objective/ Water Quality Criterion:</i>	Toxic Substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels harmful to humans (SARWQCB, 1995).
<i>Evaluation Guideline:</i>	The OEHHA screening value for mercury is 0.3 mg/kg (ppm) wet weight (OEHHA, 1999)
<i>Data Used to Assess Water Quality:</i>	None of the 23 samples exceeded the OEHHA screening value (TSMP, 2000).

Spatial Representation: Samples were collected in the Upper Newport Bay; 19 in the outer bay and 4 in the inner bay.

Temporal Representation: Samples were collected in November 2000-January 2001, June-July 2001. and April-March and August-September 2002.

Data Quality Assessment: SCCWRP QAPP was used.

Numeric Line of Evidence Pollutant-Sediment

Beneficial Use: BI - Preserva.of Bio.Hab.of Spec.Signif., ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat

Matrix: Sediment

Water Quality Objective/ Water Quality Criterion: The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).

Evaluation Guideline: The PEL-SQG for mercury is 2.1 ug/g (ppm) dry weight (MacDonald et al., 1996).

Data Used to Assess Water Quality: None of the 2 samples exceeded the PEL-SQG (Bay and Greenstein, 2003).

Spatial Representation: Samples were collected in the Upper Newport Bay site NB10.

Temporal Representation: One sample was at each sampling event in November 2001 and in March 2002.

Data Quality Assessment: SCCWRP QAPP was used.

Numeric Line of Evidence Pollutant-Water

Beneficial Use: BI - Preserva.of Bio.Hab.of Spec.Signif., ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat

Matrix: Water

Water Quality Objective/ Water Quality Criterion: Narrative objective: Toxic substance shall not be discharged at levels that will bioaccumulate in aquatic resources to which are harmful to human health. The concentrations of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses.

Evaluation Guideline: 0.051 ug/L (CTR for Organisms Only).

Data Used to Assess Water Quality: None of the 2 samples for dissolved mercury were in exceedance (Bay and Greenstein, 2003).

Spatial Representation: Samples were collected in the Upper Newport Bay at site NB10.

Temporal Representation: Samples were collected in November 2001 and March 2002. One water column sample was collected on each sampling event.

Data Quality Assessment: SCCWRP QAPP was used.

Numeric Line of Evidence Toxicity

Beneficial Use: MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning,

WI - Wildlife Habitat

Matrix:

Sediment

*Water Quality Objective/
Water Quality Criterion:*

Narrative Water Quality Objective: The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).

*Data Used to Assess Water
Quality:*

Toxicity Results: Five of 15 sediment samples were significant toxic to amphipods. Fifteen of 15 pore water samples collected had significant effect in Purple Urchin larval development. One of 15 sediment water interface samples were was significantly toxic to Purple Sea Urchin. Five of 15 sediment water interface samples were significantly toxic to the fertilization test (Bay and Greenstein, 2003).

Spatial Representation:

Samples were collected from 15 sites.

Temporal Representation:

Samples were collected in September 1994, June 1996, and August 1997.

Data Quality Assessment:

Study was conducted by the California Department of Fish and Game.

QA/QC Equivalent:

QA/QC information is contained in the document .

Region 8

Water Segment: Newport Bay, Upper (Ecological Reserve)

Pollutant: Nickel

Decision: Do Not List

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

Currently, Newport Bay, upper, is listed for metals. It is not possible, in a general listing, to determine which specific metal could be causing or contributing to a water quality impacts. There is sufficient justification for removing the general listings for metals from the 303(d) list and replace these general listings with the specific metals when found to be exceeding.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of not 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. None of the 3 samples exceeded the CTR saltwater chronic water quality objective and this does not exceed the allowable frequency listed in Table 4.1 of the Listing Policy. Although sediment toxicity has been documented in this water body, it cannot be associated with this pollutant since there is no applicable guideline available for evaluating this pollutant in sediment.
3. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation: After review of the available data and information, SWRCB staff concludes that the water body-pollutant combination should not be 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-Sediment

Beneficial Use: BI - Preserva.of Bio.Hab.of Spec.Signif., CM - Commercial and Sport Fishing (CA), ES - Estuarine Habitat, MA - Marine Habitat, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, SH - Shellfish Harvesting, SP - Fish Spawning, WI - Wildlife Habitat

<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
<i>Evaluation Guideline:</i>	There is no applicable guideline available.
<i>Data Used to Assess Water Quality:</i>	Two sample were collected. Number of exceedances could not be determined due to the unavailability of an applicable sediment quality guideline (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected in the upper bay at NB10.
<i>Temporal Representation:</i>	Samples were collected in November 2001 and March 2002.
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.
<i>QA/QC Equivalent:</i>	QA/QC samples were included in the document.

<i>Numeric Line of Evidence</i>	Pollutant-Water
<i>Beneficial Use:</i>	BI - Preserva.of Bio.Hab.of Spec.Signif., CM - Commercial and Sport Fishing (CA), ES - Estuarine Habitat, MA - Marine Habitat, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, SH - Shellfish Harvesting, SP - Fish Spawning, WI - Wildlife Habitat
<i>Matrix:</i>	Water
<i>Water Quality Objective/ Water Quality Criterion:</i>	The CTR saltwater chronic criteria is 8.2 ug/L (ppb) (USEPA, 2000). The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
<i>Data Used to Assess Water Quality:</i>	None of the 3 samples exceeded the CTR criteria (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected at the Upper Newport Bay site NB10.
<i>Temporal Representation:</i>	Samples were collected in November 2001 and March 2002. One water column sample was taken on each sampling event (November 2001 and March 2002) and one surface water interface sample was collected in November 2001.
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.

<i>Numeric Line of Evidence</i>	Toxicity
<i>Beneficial Use:</i>	MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Narrative Water Quality Objective: The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
<i>Data Used to Assess Water Quality:</i>	Toxicity Results: Five of 15 sediment samples were significant toxic to amphipods. Fifteen of 15 pore water samples collected had significant effect in Purple Urchin larval development. One of 15 sediment water interface samples were was significantly toxic to Purple Sea Urchin. Five of 15 sediment water interface samples were significantly toxic to the fertilization test (Bay and

Greenstein, 2003).

Spatial Representation:

Samples were collected from 15 sites.

Temporal Representation:

Samples were collected in September 1994, June 1996, and August 1997.

Data Quality Assessment:

Study was conducted by the California Department of Fish and Game.

QA/QC Equivalent:

QA/QC information is contained in the document .

Region 8

Water Segment:	Newport Bay, Upper (Ecological Reserve)
Pollutant:	Phenanthrene
Decision:	Do Not List
Weight of Evidence:	<p>This pollutant is being considered for placement on the section 303(d) list under section 3.6 of the Listing Policy. Under section 3.6 a single line of evidence is necessary to assess listing status.</p> <p>Two Lines of evidence are available in the administrative record to assess this pollutant. Although sediment toxicity has been documented in this water body, it cannot be associated with this pollutant.</p> <p>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.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.3. None of the 4 samples exceeded the PEL sediment quality guideline for Phenanthrene, and this does not exceed the allowable frequency listed in Table 3.1 of the Listing Policy. Therefore, a link between the sediment toxicity and this pollutant in this water body cannot be made.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:	

<i>Numeric Line of Evidence</i>	Pollutant-Sediment
<i>Beneficial Use:</i>	BI - Preserva.of Bio.Hab.of Spec.Signif., ES - Estuarine Habitat, MA - Marine Habitat, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, SH - Shellfish Harvesting, SP - Fish Spawning, WI - Wildlife Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
<i>Evaluation Guideline:</i>	The PEL sediment quality guideline for Phenanthrene is 543.53 ng/g (ppb) (MacDonald et al., 1996) .

Data Used to Assess Water Quality: None of the 4 samples exceeded the PEL sediment quality guideline (Bay and Greenstein, 2003).

Spatial Representation: Samples were collected in the Upper Newport Bay at stations NB10, NB10b and NB10c.

Temporal Representation: Samples were collected in November 2001 and March 2002.

Data Quality Assessment: SCCWRP QAPP was used.

Numeric Line of Evidence Toxicity

Beneficial Use: MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* Narrative Water Quality Objective: The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).

Data Used to Assess Water Quality: Toxicity Results: Five of 15 sediment samples were significant toxic to amphipods. Fifteen of 15 pore water samples collected had significant effect in Purple Urchin larval development. One of 15 sediment water interface samples were was significantly toxic to Purple Sea Urchin. Five of 15 sediment water interface samples were significantly toxic to the fertilization test (Bay and Greenstein, 2003).

Spatial Representation: Samples were collected from 15 sites.

Temporal Representation: Samples were collected in September 1994, June 1996, and August 1997.

Data Quality Assessment: Study was conducted by the California Department of Fish and Game.

QA/QC Equivalent: QA/QC information is contained in the document .

Region 8

Water Segment:	Newport Bay, Upper (Ecological Reserve)
Pollutant:	Polycyclic Aromatic Hydrocarbons (PAHs) (Aquatic Ecosystems)
Decision:	Do Not List
Weight of Evidence:	<p>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.</p> <p>One line of evidence is available in the administrative record to assess this pollutant. None of the samples exceed the water quality objective.</p> <p>Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification against placing this water segment-pollutant combination on the section 303(d) list in the Water Quality Limited Segments category.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The 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 4 samples exceeded the dry weight sediment quality guidelines 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:	

<i>Numeric Line of Evidence</i>	Pollutant-Sediment
<i>Beneficial Use:</i>	BI - Preserva.of Bio.Hab.of Spec.Signif., CM - Commercial and Sport Fishing (CA), ES - Estuarine Habitat, MA - Marine Habitat, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare & Endangered Species, SH - Shellfish Harvesting, SP - Fish Spawning, WI - Wildlife Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
<i>Evaluation Guideline:</i>	The sediment quality guideline for total PAHs in 1800 ug/g (ppm) dry weight (Fairey et al., 2001).
<i>Data Used to Assess Water</i>	None of the 4 samples exceeded sediment quality guideline (Bay and

Quality: Greenstein, 2003).

Spatial Representation: Samples were collected in the Upper Newport Bay at station NB10, NB10b and NB10c.

Temporal Representation: Samples were collected in November 2001 and March 2002.

Data Quality Assessment: SCCWRP QAPP was used.

Region 8

Water Segment:	Newport Bay, Upper (Ecological Reserve)
Pollutant:	Selenium
Decision:	Do Not List
Weight of Evidence:	<p>This pollutant is being considered for placement on the section 303(d) list under sections 2.1 and 3.5 of the Listing Policy.</p> <p>Currently, Newport Bay, upper, is listed for metals. It is not possible, in a general listing, to determine which specific metal could be causing or contributing to a water quality impacts. There is sufficient justification for removing the general listings for metals from the 303(d) list and replace these general listings with the specific metals when found to be exceeding.</p> <p>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.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The water criteria and tissue 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 the 4 samples exceeded the selenium CTR saltwater CCC criteria. None of 23 samples exceeded the selenium wet weight OEHHA screening value (OEHHA, 1999). 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 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 for metals on the section 303(d) list because applicable water quality standards for the pollutant are not exceeded.

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Tissue
<i>Beneficial Use:</i>	CM - Commercial and Sport Fishing (CA), SH - Shellfish Harvesting
<i>Matrix:</i>	Water

*Water Quality Objective/
Water Quality Criterion:* Toxic Substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels harmful to humans (SARWQCB, 1995).

Evaluation Guideline: The OEHHA screening value for selenium is 2 mg/kg (ppm) wet weight (OEHHA, 1999).

Data Used to Assess Water Quality: None of the 23 samples exceed the OEHHA screening value. Bay and Greenstein, 2003).

Spatial Representation: Nineteen samples were collected in the outer upper bay and 4 sample in the inner upper bay.

Temporal Representation: Samples were collected in November 2000-January 2001, June-July 2001, and March-April and August-September 2002.

Data Quality Assessment: SCCWRP QAPP was used.

QA/QC Equivalent: QA/QC information was included in the document.

Numeric Line of Evidence Pollutant-Water

Beneficial Use: ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat

Matrix: Water

*Water Quality Objective/
Water Quality Criterion:* From the CTR, the saltwater (chronic) criteria is 71 (USEPA, 2000).

The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).

Data Used to Assess Water Quality: None of the 4 samples exceeded the CTR criteria (Bay and Greenstein, 2003).

Spatial Representation: Samples were collected in the Upper Newport Bay at sites NB10, NB10b, and NB10c.

Temporal Representation: Three sample were collected in November 2001; 2 in the water column and 1 at the surface water interface. One water column sample was collected in March 2002.

Data Quality Assessment: SCCWRP study, considered acceptable.

Numeric Line of Evidence Toxicity

Beneficial Use: MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat

Matrix: Sediment

*Water Quality Objective/
Water Quality Criterion:* Narrative Water Quality Objective: The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).

Data Used to Assess Water Quality: Toxicity Results: Five of 15 sediment samples were significant toxic to amphipods. Fifteen of 15 pore water samples collected had significant effect in Purple Urchin larval development. One of 15 sediment water interface samples were was significantly toxic to Purple Sea Urchin. Five of 15 sediment water interface samples were significantly toxic to the fertilization test (Bay and

Greenstein, 2003).

Spatial Representation:

Samples were collected from 15 sites.

Temporal Representation:

Samples were collected in September 1994, June 1996, and August 1997.

Data Quality Assessment:

Study was conducted by the California Department of Fish and Game.

QA/QC Equivalent:

QA/QC information is contained in the document .

Region 8

Water Segment: Newport Bay, Upper (Ecological Reserve)

Pollutant: Silver

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 line of evidence is necessary to assess listing status.

Currently, Newport Bay is listed for metals. It is not possible, in a general listing, to determine which specific pollutant is causing or contributing to a water quality impacts. There is sufficient justification for removing the general listings for metals from the 303(d) list and replace these general listings with the specific pollutants when found to be exceeding.

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

This conclusion is based on the staff findings that:

1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
2. The data used does not satisfy the temporal and spatial data quantity requirements of section 6.1.5 of the Policy.
3. None of the 3 samples exceeded the CTR saltwater chronic criteria and none of the 2 exceeded the PEL sediment quality guideline. This does not exceed the allowable frequency listed in Table 3.1 of the Listing Policy. Although sediment toxicity has been documented in this water body, it cannot be associated with this pollutant.
4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

Beneficial Use: BI - Preserva.of Bio.Hab.of Spec.Signif., ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat

Matrix: Water

**Water Quality Objective/
Water Quality Criterion:** CTR criteria saltwater acute criteria for silver is 1.9 ppb (USEPA, 2000).

The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).

<i>Data Used to Assess Water Quality:</i>	None of the 3 samples were in exceedance of the CTR criteria (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected at the Upper Newport Bay at site NB 10.
<i>Temporal Representation:</i>	Samples were collected in November 2001 and March 2002. One water column sample was taken on each sampling event (November 2001 and March 2002 and one surface water interface sample was collected in November 2001.
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.

<i>Numeric Line of Evidence</i>	Toxicity
<i>Beneficial Use:</i>	MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	Narrative Water Quality Objective: The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
<i>Data Used to Assess Water Quality:</i>	Toxicity Results: Five of 15 sediment samples were significant toxic to amphipods. Fifteen of 15 pore water samples collected had significant effect in Purple Urchin larval development. One of 15 sediment water interface samples were was significantly toxic to Purple Sea Urchin. Five of 15 sediment water interface samples were significantly toxic to the fertilization test (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected from 15 sites.
<i>Temporal Representation:</i>	Samples were collected in September 1994, June 1996, and August 1997.
<i>Data Quality Assessment:</i>	Study was conducted by the California Department of Fish and Game.
<i>QA/QC Equivalent:</i>	QA/QC information is contained in the document .

<i>Line of Evidence</i>	Pollutant-Sediment
<i>Beneficial Use</i>	BI - Preserva.of Bio.Hab.of Spec.Signif., ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat
<i>Evaluation Guideline:</i>	PEL-SQG for Marine and Estuary is 1.77 ug/g (ppm) (MacDonald, 1996).
<i>Data Used to Assess Water Quality:</i>	None of the 2 exceeded the PEL sediment quality guideline (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected at the Upper Newport Bay.
<i>Temporal Representation:</i>	Samples were collected in November 2001 and March 2002.

Region 8

Water Segment:	Rhine Channel
Pollutant:	Polycyclic Aromatic Hydrocarbons (PAHs) (Aquatic Ecosystems)
Decision:	Do Not List
Weight of Evidence:	<p>This pollutant is being considered for placement on the section 303(d) list under sections 3.6 of the Listing Policy. Under section 3.6 a single line of evidence is necessary to assess listing.</p> <p>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.</p> <p>This conclusion is based on the staff findings that:</p> <ol style="list-style-type: none">1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.4. None of 4 samples exceeded the sediment quality guideline. These samples 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 met.

Lines of Evidence:

<i>Numeric Line of Evidence</i>	Pollutant-Sediment
<i>Beneficial Use:</i>	ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat
<i>Matrix:</i>	Sediment
<i>Water Quality Objective/ Water Quality Criterion:</i>	The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
<i>Evaluation Guideline:</i>	The sediment quality guideline for total PAHs is 1800 ug/g (ppm) dry weight (Fairey et al., 2001).
<i>Data Used to Assess Water Quality:</i>	None of 4 samples exceeded the sediment quality guideline (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected from the Rhine Channel at stations NB3, NB11, and NB12.
<i>Temporal Representation:</i>	One sample was collected in November 2001 from station NB3. Three samples

were collected on March 2002 from stations NB3, NB11, and NB12.

Data Quality Assessment:

SCCWRP QAPP was used.

Numeric Line of Evidence

Toxicity

Beneficial Use:

ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat

Matrix:

Sediment

*Water Quality Objective/
Water Quality Criterion:*

Narrative Water Quality Objective: Toxic substances. The concentration of toxic substances in the water column, sediments, biota shall not adversely affect beneficial uses.

*Data Used to Assess Water
Quality:*

Toxicity Results (Bat and Greenstein, 2003). Two of 2 sediment samples were significant toxic to amphipods. Two of 2 pore water samples collected exhibited significant effect in Purple Urchin larval development. One of 1 sediment-water interface samples were was significantly toxic to Purple Sea Urchin. One of 1 sample exhibited significant toxic effect to Ampelisca.

Spatial Representation:

Samples were collected from one site in Newport Bay-Rhine Channel.

Temporal Representation:

One sample was collected in September 1994 and June 1996.

Data Quality Assessment:

Study was conducted by the California Department of Fish and Game.

QA/QC Equivalent:

QA/QC information is contained in the document .

Numeric Line of Evidence

Toxicity

Beneficial Use:

ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat

Matrix:

Sediment

*Water Quality Objective/
Water Quality Criterion:*

Narrative Water Quality Objective: The concentration of toxic substances in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).

*Data Used to Assess Water
Quality:*

Eleven of 15 samples exhibited significant toxicity to Amphipods. In fact, one sample from station RC 5 had marginal toxicity and 10 samples collected from RC6 to RC15 had high toxicity (Bay and Greenstein, 2003).

Spatial Representation:

Samples were collected from 15 stations in Rhine Channel, Newport Bay. These stations were distributed throughout the study area.

Temporal Representation:

Samples were collected on May 14, 2002.

Data Quality Assessment:

SCCWRP QAPP was used.

Numeric Line of Evidence

Toxicity

Beneficial Use:

ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish Spawning, WI - Wildlife Habitat

Matrix:

Water

Water Quality Objective/

Narrative Water Quality Objective: The concentration of toxic substances in the

<i>Water Quality Criterion:</i>	water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).
<i>Data Used to Assess Water Quality:</i>	Ten of 15 samples exhibited significant toxicity effect to sea urchin development test in the sediment-water interface from stations RC2, RC3, RC4, RC7, RC8, RC9, RC11, RC12, RC13, and RC 14. In fact, all samples were high toxicity (BPTCP, 1998).
<i>Spatial Representation:</i>	Samples were collected from station RC1 - RC15 in Rhine Channel, Newport Bay.
<i>Temporal Representation:</i>	Samples were collected on May 14, 2002.
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.

Region 8

Water Segment: San Diego Creek Reach 1

Pollutant: Arsenic

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 four samples exceeded the CTR 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:

R1 - Water Contact Recreation, R2 - Non-Contact Recreation, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix:

Water

***Water Quality Objective/
Water Quality Criterion:***

The CTR for arsenic freshwater chronic is 150 ug/L (ppb) (USEPA, 2000).

The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).

Data Used to Assess Water Quality:

None of the four samples exceeded the CTR criteria. Two samples were collected 3-4 hrs apart per sample event. Therefore, the results of the two samples were averaged per sample event (Bay and Greenstein, 2003).

Spatial Representation:

Samples were collected from Campus Drive Bridge at San Diego Creek, Reach 1.

Temporal Representation: Samples were collected on March 7, May 2, August 12 and November 8, 2002.

Environmental Conditions: Two averaged samples were collected during wet weather (March 7 and November 8, 2002) and two average samples were collected in dry weather (May 2, August 12, 2002).

Data Quality Assessment: SCCWRP QAPP was used.

Region 8

Water Segment: San Diego Creek Reach 1

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.

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 four samples exceeded the CTR 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:

R1 - Water Contact Recreation, R2 - Non-Contact Recreation, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix:

Water

***Water Quality Objective/
Water Quality Criterion:***

The hardness adjust CTR freshwater chronic criteria for cadmium is 8.97 ug/L (ppb) (USEPA, 2000). The hardness adjust CTR is based on an average hardness throughout the monitoring period.

The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).

Data Used to Assess Water Quality:

None of the 4 samples exceeded the CTR criteria. All samples were reported below the detection limit for cadmium (Bay and Greenstein, 2003).

Spatial Representation:

Samples were collected from Campus Drive Bridge at San Diego Creek, Reach

<i>Temporal Representation:</i>	1. Samples were collected on March 7, May 2, August 12 and November 8, 2002.
<i>Environmental Conditions:</i>	Two averaged samples were collected during wet weather (March 7 and November 8, 2002) and two averaged samples were collected in dry weather (May 2, and August 12, 2002).
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.

Region 8

Water Segment: San Diego Creek Reach 1

Pollutant: Copper

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under section 3.1 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 four samples exceeded the CTR 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:

R1 - Water Contact Recreation, R2 - Non-Contact Recreation, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix:

Water

***Water Quality Objective/
Water Quality Criterion:***

The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).

The CTR for hardness adjusted copper freshwater chronic is 40.6 ug/L (ppb) (USEPA, 2000). The hardness is based on a average hardness throughout the monitoring period.

Data Used to Assess Water Quality:

None of the four samples exceeded the CTR criteria. Two samples were collected 3-4 hrs apart per sample event. Therefore, the results of the two samples were averaged per sample event (Bay and Greenstein, 2003).

Spatial Representation: Samples were collected from Campus Drive Bridge at San Diego Creek, Reach 1.

Temporal Representation: Samples were collected on March 7, May 2, August 12 and November 8, 2002.

Environmental Conditions: Two averaged samples were collected during wet weather (March 7 and November 8, 2002) and two averaged samples were collected in dry weather (May 2, and August 12, 2002).

Data Quality Assessment: SCCWRP QAPP was used.

Region 8

Water Segment: San Diego Creek Reach 1

Pollutant: Lead

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under section 3.1 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 four samples exceeded the CTR 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:

R1 - Water Contact Recreation, R2 - Non-Contact Recreation, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix:

Water

***Water Quality Objective/
Water Quality Criterion:***

The hardness adjusted CTR freshwater chronic criteria for lead is 23.9 ug/L (ppb) (USEPA, 2000).

The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).

Data Used to Assess Water Quality:

None of the 4 samples exceeded the CTR criteria. Two samples were collected 3-4 hrs apart per sample event. Therefore, the results of the two samples were averaged per sample event (Bay and Greenstein, 2003).

Spatial Representation:

Samples were collected from Campus Drive Bridge at San Diego Creek, Reach

<i>Temporal Representation:</i>	1. Samples were collected on March 7, May 2, August 12 and November 8, 2002.
<i>Environmental Conditions:</i>	Two averaged samples were collected during wet weather (March 7 and November 8, 2002) and two averaged samples were collected in dry weather (May 2, and August 12, 2002).
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.

Region 8

Water Segment: San Diego Creek Reach 1

Pollutant: Mercury

Decision: Do Not List

Weight of Evidence: This pollutant is being considered for placement on the section 303(d) list under section 3.1 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 6 samples exceeded the CTR 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:

R1 - Water Contact Recreation, R2 - Non-Contact Recreation, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix:

Water

*Water Quality Objective/
Water Quality Criterion:*

The Basin Plan narrative objective is: Toxic substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels which are harmful to human health. The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).

Evaluation Guideline:

Mercury CTR criteria for freshwater chronic for water and organisms is 0.050 ug/L (ppb).

Data Used to Assess Water Quality:

None of the 6 samples exceeded the CTR criteria (Bay and Greenstein, 2003).

Spatial Representation:

Samples were collected from Campus Drive Bridge at San Diego Creek, Reach

1.

Temporal Representation:

Samples were collected on March 7, May 2, August 12 and November 8, 2002.

Environmental Conditions:

Samples were collected during wet weather (March 7 and November 8, 2002) and during dry weather (May 2, and August 12, 2002).

Data Quality Assessment:

SCCWRP QAPP was used.

Region 8

Water Segment: San Diego Creek Reach 1

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.

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 four samples exceeded the CTR 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:

R1 - Water Contact Recreation, R2 - Non-Contact Recreation, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix:

Water

***Water Quality Objective/
Water Quality Criterion:***

The hardness adjusted CTR for nickel is 232.3 ug/L (ppb) (USEPA, 2000). The hardness adjustment is based on the average hardness throughout the monitoring period.

The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).

The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).

Data Used to Assess Water

None of the 4 samples exceeded the CTR criteria. Two samples were collected

<i>Quality:</i>	3-4 hrs apart per sample event. Therefore, the results of the two samples were averaged per sample event (Bay and Greenstein, 2003).
<i>Spatial Representation:</i>	Samples were collected from Campus Drive Bridge at San Diego Creek, Reach 1.
<i>Temporal Representation:</i>	Samples were collected on March 7, May 2, August 12 and November 8, 2002.
<i>Environmental Conditions:</i>	Two averaged samples were collected during wet weather (March 7 and November 8, 2002) and two averaged samples were collected in dry weather (May 2, and August 12, 2002).
<i>Data Quality Assessment:</i>	SCCWRP QAPP was used.

Region 8

Water Segment: San Diego Creek Reach 1

Pollutant: Silver

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 four samples exceeded the CTR 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:

R1 - Water Contact Recreation, R2 - Non-Contact Recreation, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix:

Water

***Water Quality Objective/
Water Quality Criterion:***

The hardness adjusted CTR freshwater acute criteria for silver is 116.9 ug/L (ppb) (USEPA, 2000). The hardness adjusted CTR was based on the highest hardness during the monitoring period.

The concentration of toxic substance in the water column, sediments or biota shall not adversely affect beneficial uses (SARWQCB, 1995).

Data Used to Assess Water Quality:

None of the 4 samples exceeded the CTR criteria. All samples were below the detection limit for silver (Bay and Greenstein, 2003).

Spatial Representation:

Samples were collected from Campus Drive Bridge at San Diego Creek, Reach

1.

Temporal Representation: Samples were collected on March 7, May 2, August 12 and November 8, 2002.

Environmental Conditions: Two samples were collected during wet weather (March 7 and November 8, 2002) and two samples were collected in dry weather (May 2, and August 12, 2002).

Data Quality Assessment: SCCWRP QAPP was used.

Region 8

Water Segment: San Diego Creek Reach 1

Pollutant: Total Dissolved Solids

Decision: Do Not List

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

One line of evidence is available in the administrative record to assess this pollutant. A two samples exceeded 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. Two of 2 samples exceeded the Basin Plan water quality objective. Pursuant to Table 3.2 of the Policy, 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:

R1 - Water Contact Recreation, R2 - Non-Contact Recreation, WA - Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix:

Water

***Water Quality Objective/
Water Quality Criterion:***

From the Basin Plan: For inland surface waters-streams, and all beneficial uses, the WQO for total dissolved solids in San Diego Creek, Reach 1 - below Jeffrey Road is a maximum of 1500 mg/L.

***Data Used to Assess Water
Quality:***

Two samples were collected in San Diego Creek, 1 at BARSED and 1 at WYL SED. Both samples were in exceedance.

Spatial Representation:

Samples were collected at the San Diego Creek, sites BARSED and WYL SED.

Temporal Representation:

Samples were collected on 10/29/2002.
