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



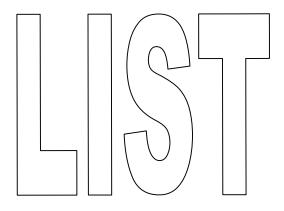
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Santa Ana Region (8)



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

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Water Segment: Anaheim Bay

Pollutant: Polychlorinated biphenyls

Decision: List

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

under section 3.5 of the Listing Policy. One line of evidence is available in the

administrative record to assess this pollutant.

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

Limited Segments category.

This conclusion is based on the staff findings that:

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

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

3. Three of the 4 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.

4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation:

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

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

Matrix: Tissue

Water Quality Objective/ Water Quality Criterion: Santa Ana River Basin RWQCB Basin Plan: Toxic substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels

which are harmful to human health.

Evaluation Guideline: 20 ng/g (OEHHA Screening Value)

Data Used to Assess Water

Quality:

Three out of 4 samples exceeded. All 5 samples were filet composites representing the following species: diamond turbot, shiner surfperch, black surfperch, and yellowfin croaker. All but the diamond turbot

exceeded guideline (TSMP, 2002).

Spatial Representation: One station sampled in Anaheim Bay.

Temporal Representation: Samples were collected in June and October 1999.

Data Quality Assessment: CFCP 1998 Year 1 QA Summary of Pesticides and PCBs. California

Department of Fish and Game.

CDFG Fish and Wildlife Water Pollution Control Laboratory Data Quality Assurance Report. 1999 Coastal Fish Contamination Program (CFCP

Year 2). California Department of Fish and Game.

Water Segment: Anaheim Bay

Pollutant: Toxicity

Decision: List

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

under section 3.6 of the Listing Policy. Under section 3.6, waters may be

placed on the 303(d) list for toxicity alone.

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

pollutant. A large number of samples were toxic.

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

Limited Segments category.

This conclusion is based on the staff findings that:

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

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

3. Twenty-three of 63 samples exceeded the (90 percent of the minimum significant difference for test species Eohaustorius estuarius) and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.

4. Pursuant to section 3.11 of the Listing Policy, no additional data and

information are available indicating that standards are not met.

SWRCB Staff Recommendation:

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

pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Toxicity

Beneficial Use: MA - Marine Habitat

Matrix: Sediment

Water Quality Objective/ Basin Plan Narrative Water Quality Objective: The concentrations of toxic

Water Quality Criterion: 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, 2004).

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.

Water Segment: Balboa Beach

Pollutant: DDT

Decision: List

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

under section 3.5 of the Listing Policy. One line of evidence is available in the

administrative record to assess this pollutant.

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

Limited Segments category.

This conclusion is based on the staff findings that:

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

- 2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
- 3. Four of the 21 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.
- 4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation:

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

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

Matrix: Tissue

Water Quality Objective/ Water Quality Criterion: Santa Ana River Basin RWQCB Basin Plan: Toxic substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels

which are harmful to human health.

Evaluation Guideline: 100 ng/g - OEHHA Screening Value (Newport Pier Health Advisory for

DDT & PCB).

Data Used to Assess Water

Quality:

Four out of 21 samples exceeded. All 21 samples were filet composites representing the following species: barred surfperch, black surfperch, California corbina, diamond turbot, shiner surfperch, spotted scorpionfish, spotted turbot, walleye surfperch, white croaker, and yellowfin croaker. Walleye surfperch from Balboa Pier and Newport Beach exceeded guideline. Shiner surfperch from Newport Beach and Newport Jetty also

exceeded guideline (TSMP, 2002).

Spatial Representation: Four stations were sampled: Newport Beach (Newport Pier, Newport

Beach) and Balboa Beach (Balboa Pier, Newport Jetty).

Temporal Representation: Samples were collected in May, June, August, October, November 1999

and April 2000.

Data Quality Assessment: CFCP 1998 Year 1 QA Summary Pesticides and PCBs. California

Department of Fish and Game.

CDFG Fish and Wildlife Water Pollution Control Laboratory Data Quality

Assurance Report. 1999 Coastal Fish Contamination Program (CFCP

Year 2). California Department of Fish and Game.

Water Segment: Balboa Beach

Pollutant: Dieldrin

Decision: List

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

under section 3.5 of the Listing Policy. One line of evidence is available in the

administrative record to assess this pollutant.

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

Limited Segments category.

This conclusion is based on the staff findings that:

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

- 2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
- $3.\ Two\ of\ the\ 21\ samples\ exceeded\ the\ OEHHA\ Screening\ Value\ and\ this\ exceeds\ the\ allowable\ frequency\ listed\ in\ Table\ 3.1\ of\ the\ Listing\ Policy.$
- 4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

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

Matrix: Tissue

Water Quality Objective/ Santa Water Quality Criterion: disch

Santa Ana River Basin RWQCB Basin Plan: Toxic substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels

which are harmful to human health.

Evaluation Guideline: 2.0 ng/g - OEHHA Screening Value (Newport Pier Health Advisory for

DDT & PCB).

Data Used to Assess Water

Quality:

Two out of 21 samples exceeded. All 21 samples were filet composites representing the following species: barred surfperch, black surfperch, California corbina, diamond turbot, shiner surfperch, spotted scorpionfish, spotted turbot, walleye surfperch, white croaker, and yellowfin croaker. Only walleye surfperch and shiner surfperch from Newport Beach exceeded guideline. Dieldrin in all other samples was not detected at the

detection limit of 2.0 ng/g (TSMP, 2002).

Spatial Representation: Four stations were sampled: Newport Beach (Newport Pier, Newport

Beach) and Balboa Beach (Balboa Pier, Newport Jetty).

Temporal Representation: Samples were collected in May, June, August, October, November 1999

and April 2000.

Data Quality Assessment: CFCP 1998 Year 1 QA Summary Pesticides and PCBs. California

Department of Fish and Game.

CDFG Fish and Wildlife Water Pollution Control Laboratory Data Quality

Assurance Report. 1999 Coastal Fish Contamination Program (CFCP

Year 2). California Department of Fish and Game.

Water Segment: Balboa Beach

Pollutant: Polychlorinated biphenyls

Decision: List

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

under section 3.5 of the Listing Policy. One line of evidence is available in the

administrative record to assess this pollutant.

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

Limited Segments category.

This conclusion is based on the staff findings that:

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

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

3. Nine of the 21 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.

4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation:

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

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

Matrix: Tissue

Water Quality Objective/ Water Quality Criterion: Santa Ana River Basin RWQCB Basin Plan: Toxic substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels

which are harmful to human health.

Evaluation Guideline: 20 ng/g (OEHHA Screening Value).

Data Used to Assess Water

Quality:

Nine out of 21 samples exceeded. All 21 samples were filet composites representing the following species: barred surfperch, black surfperch, California corbina, diamond turbot, shiner surfperch, spotted scorpionfish, spotted turbot, walleye surfperch, white croaker, and yellowfin croaker. Four out of six samples at Newport Beach, two out of six at Newport Pier, two out of four at Balboa Pier, and one out of five at Newport Jetty

exceeded guideline (TSMP, 2002).

Spatial Representation: Four stations were sampled: Balboa Pier, Newport Beach, Newport Jetty,

and Newport Pier.

Temporal Representation: Samples were collected in May, June, August, October, November 1999

and April 2000.

Water Segment: Big Bear Lake

Pollutant: Mercury

Decision: List

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

under section 3.5 of the Listing Policy. Under section 3.5 a single line of

evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. A large number of samples exceed the OEHHA screening value.

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

This conclusion is based on the staff findings that:

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

- 2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
- 3. Four of 30 samples exceeded the 0.3 OEHHA mg/kg (ppm) wet weight screening value and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.
- 4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation:

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

Beneficial Use: CM - Commercial and Sport Fishing (CA), CO - Cold Freshwater Habitat,

MI - Fish Migration, R1 - Water Contact Recreation, RA - Rare &

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

Matrix: Tissue

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

Water Quality Criterion: in aquatic resources to levels harmful to humans.

Evaluation Guideline: The OEHHA screening value for mercury 0.3 mg/kg (ppm) wet weight

(OEHHA, 1999).

Data Used to Assess Water

Quality:

Four of 30 composite samples exceeded the OEHHA screening values

(TSMP, 2002).

Spatial Representation: Sample were collected from stations 801.71.07; 801.71.08; 801.71.10;

801.71.12.

Temporal Representation: Samples were collected between May 1984 and July 2000.

Data Quality Assessment: These data were collected as part of the California Toxic Substances

Monitoring Program.

Water Segment: Big Bear Lake

Pollutant: Polychlorinated biphenyls

Decision: List

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

under section 3.5 of the Listing Policy. One line of evidence is available in the

administrative record to assess this pollutant.

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

Limited Segments category.

This conclusion is based on the staff findings that:

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

- 2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
- 3. Four of the 12 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.
- 4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation:

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

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

Matrix: Tissue

Water Quality Objective/ Santa Ana River Basin RWQCB Basin Plan: Toxic substances shall not be Water Quality Criterion: discharged at levels that will bioaccumulate in aquatic resources to levels

which are harmful to human health.

Evaluation Guideline: 20 ng/g (OEHHA Screening Value)

Data Used to Assess Water

Quality:

Four out of 12 samples exceeded. A total of 9 filet composite samples of largemouth bass and 3 filet composite samples of carp were collected. Largemouth bass were collected in 1994-95 and 2000-01. Carp were collected in 2000-01. The guideline was exceeded in all three carp samples and one largemouth bass sample collected in 2000. Seven smaller size largemouth bass samples had undeletable levels of PCBs (TSMP,

2002).

Spatial Representation: Three stations were sampled: at Metcalf and Grout Bays, about 200 yards

from the dam along the south shore, and in the vicinity of the mouth of

Rathbone Creek.

Temporal Representation: Samples were collected annually 1994-95 and 2000-01.

Data Quality Assessment: Toxic Substances Monitoring Program 1994-95 Data Report.

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

and Game

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

and Game.

Water Segment: Elsinore, Lake

Pollutant: Polychlorinated biphenyls

Decision: List

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

under section 3.5 of the Listing Policy. One line of evidence is available in the

administrative record to assess this pollutant.

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

Limited Segments category.

This conclusion is based on the staff findings that:

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

- 2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
- 3. Five of the 6 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.
- 4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation:

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

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

Matrix: Tissue

Water Quality Objective/ Water Quality Criterion: Santa Ana River Basin RWQCB Basin Plan: Toxic substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels

which are harmful to human health.

Evaluation Guideline: 20 ng/g (OEHHA Screening Value).

Data Used to Assess Water

Quality:

Five out of 6 samples exceeded. A total of 6 filet composite samples of carp were collected. Carp were collected in 1994-95 and 2000-2002. The guideline was exceeded in every sample except in 1994 (TSMP, 2002).

Spatial Representation: One station located west of Interstate 15.

Temporal Representation: Samples were collected annually 1994-95 and 2000-02

Data Quality Assessment: Toxic Substances Monitoring Program 1994-95 Data Report.

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

and Game

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

and Game.

Water Segment: Huntington Beach State Park

Pollutant: Polychlorinated biphenyls

Decision: List

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

under section 3.5 of the Listing Policy. One line of evidence is available in the

administrative record to assess this pollutant.

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

Limited Segments category.

This conclusion is based on the staff findings that:

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

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

3. Four of the 6 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.

4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

Beneficial Use: CM - Commercial and Sport Fishing (CA), MA - Marine Habitat

Matrix: Tissue

Water Quality Objective/ Water Quality Criterion: Santa Ana River Basin RWQCB Basin Plan: Toxic substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels

which are harmful to human health.

Evaluation Guideline: 20 ng/g (OEHHA Screening Value)

Data Used to Assess Water

Quality:

Four out of 6 samples exceeded. All 6 samples were filet composites representing the following species: barred surfperch, black surfperch, kelp bass, opaleye, shiner surfperch, and yellowfin croaker. Black surfperch and kelp bass from Emma Oil Platform, shiner surfperch from Huntington Beach and yellowfin croaker from Huntington Beach Pier exceeded

guideline (TSMP, 2002).

Spatial Representation: Three stations were sampled: Huntington Beach, Huntington Beach Pier,

and Emma Oil Platform.

Temporal Representation: Samples were collected in March and October 1999.

Data Quality Assessment: CFCP 1998 Year 1 QA Summary: Pesticides and PCBs. California

Department of Fish and Game.

CDFG Fish and Wildlife Water Pollution Control Laboratory Data Quality

Assurance Report. 1999 Coastal Fish Contamination Program (CFCP

Year 2). California Department of Fish and Game.

Water Segment: Huntington Harbour

Pollutant: Chlordane

Decision: List

Weight of Evidence:

This pollutant is being considered for placement on the section 303(d) list under section 3.6 of the Listing Policy. Under section 3.6 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. These includes sediment chemical data and sediment toxicity data.

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

This conclusion is based on the staff findings that:

- 1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
- 2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
- 3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
- 4. Seven of 66 samples exceeded the 6 ng/g (ppb) dry weight ERM sediment guideline (Long et al., 1995), and 63 of 66 samples exceeded the 90 percent of the minimum significant difference for test species Eohaustorius estuarius, and these exceed the allowable frequency listed in Table 3.1 of the Listing Policy.
- 5. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation:

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Sediment

Beneficial Use: MA - Marine Habitat

Matrix: Sediment

Water Quality Objective/ The ERM sediment quality guideline for chlordane is 6 ng/g (ppb) dry

Water Quality Criterion: weight (Long et. al., 1995).

Data Used to Assess Water

Quality:

Seven of 66 samples exceeded the ERM (Bay and Greenstein, 2003).

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

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

Environmental Conditions: Samples were collected during dry season (8/8/01) and wet season

(2/27/03).

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

QA/QC Equivalent: Quality control data was presented.

Numeric Line of Evidence **Toxicity**

ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered Beneficial Use:

Species, SP - Fish Spawning, WI - Wildlife Habitat

Matrix: Sediment

Water Quality Objective/ Narrative Water Quality Objective: " The concentration of toxic pollutants Water Quality Criterion:

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 and 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.

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

Data Quality Assessment: SARQWCB followed the Bight 1998 QAPP developed by SCCWRP. Water Segment: Huntington Harbour

Pollutant: Lead

Decision: List

Weight of Evidence:

This pollutant is being considered for placement on the section 303(d) list under section 3.6 of the Listing Policy. Under section 3.6 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 and a sufficient number of samples exceed the PEL sediment quality guideline.

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

This conclusion is based on the staff findings that:

- 1. A sediment quality guideline is available that complies with the requirements of section 6.1.3 of the Policy.
- 2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
- 3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
- 4. Seven of 65 samples exceeded the PEL sediment quality guideline and this exceed the allowable frequency listed in Table 3.1 of the Listing Policy. 5. Pursuant to section 3.11 of the Listing Policy, no additional data and
- information are available indicating that standards are not met.

SWRCB Staff Recommendation:

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Sediment

Beneficial Use: MA - Marine Habitat

Sediment Matrix:

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

Evaluation Guideline: PEL sediment quality guideline for lead is 112.18 ug/g/dw.

Data Used to Assess Water

Quality:

Seven of 65 samples were collected exceeded the PEL sediment quality

guideline (Bay and Greenstein, 2003).

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

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

Environmental Conditions: Samples were collected during dry season (8/8/01) 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/ Narrative Water Quality Objective: "The concentration of toxic pollutants Water Quality Criterion:

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 and 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.

Water Segment: Huntington Harbour

Pollutant: Toxicity

Decision: List

Weight of Evidence:

This pollutant is being considered for placement on the section 303(d) list under section 3.6 of the Listing Policy. Under section 3.6 waters may be placed on the 303(d) list for toxicity alone.

One line of evidence is available in the administrative record to assess this toxicity condition. A substantial number of sediment samples were toxic and a pollutant is causing or contributing to the toxic effect.

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

This conclusion is based on the staff findings that:

- 1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
- 2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
- 3. Sixty-three of 66 samples exceeded the 90 percent of the minimum significant difference for test species Eohaustorius estuarius.
- 4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation:

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

Lines of Evidence:

Numeric Line of Evidence Toxicity

Beneficial Use: ES - Estuarine Habitat, 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 pollutants Water Quality Criterion:

in the water column, sediment or biota shall not adversely affect beneficial use."

Data Used to Assess Water

Ouality:

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 and 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.

Water Segment: Newport Bay, Lower

Pollutant: Chlorpyrifos

Decision: List

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

Policy. Under this section of the Policy, a minimum of one line of evidence is

needed to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. Based on the applicable factor, a TMDL has been developed and approved by USEPA and an approved implementation plan is expected to

result in attainment of the standard.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination in the Water Quality Limited Segments Being

Addressed portion of the section 303(d) list.

SWRCB Staff Recommendation:

After review of the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed in the Water Quality Limited Segments Being Addressed category of the section 303(d) list because a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

Beneficial Use ES - Estuarine Habitat

Information Used to Assess

Water Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Newport Bay Watershed

Diazinon/Chlorpyrifos TMDL was approved by RWQCB on April 4, 2003

and subsequently approved by USEPA on February 13, 2004.

Non-Numeric Objective: The concentration of toxic substance in the water column, sediments or

biota shall not adversely affect beneficial uses.

Water Segment: Newport Bay, Lower

Pollutant: Copper

Decision: List

Weight of Evidence:

This pollutant is being considered for placement on the section 303(d) list under section 3.1 of the Listing Policy. Under section 3.1 One line of evidence is necessary to assess listing status. Three lines of evidence are available in the administrative record to assess this pollutant. A sufficient number of samples exceed the CTR criteria. Sediment toxicity has been documented, but none of the samples exceeded the sediment quality guideline in this water body.

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

This conclusion is based on the staff findings that:

- 1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
- 2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
- 3. Two of 2 samples exceeded the CTR criteria.
- 4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

Currently, Newport Bay, lower, 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 found to be exceeding.

SWRCB Staff Recommendation:

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Sediment

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: 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 copper is 270 ug/g (ppm) dry

weight (Long et al., 1995).

Data Used to Assess Water

Quality:

None of 3 samples exceeded the ERM (Bay and Greenstein, 2003).

Spatial Representation: Samples were collected at the Lower Newport Bay at stations 2137, 2136,

and 2142.

Temporal Representation: Sample were collected in May 2002.

Data Quality Assessment: SCCWRP QAPP was used.

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:

CTR Criterion Continuous Concentration for dissolved Copper in

saltwater is 3.1 ug/l for the protection of aquatic life.

Data Used to Assess Water

Quality:

Two of two samples taken at different sampling stations exceeded the

CTR CCC Criteria.

Spatial Representation: Two sample sites located in Lower Newport Bay at Harbor Inner Reach

and at the PCH Bridge.

Temporal Representation: Samples were taken 10/29/02.

Data Quality Assessment: USEPA Quality Assurance Plan

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.

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

Water Segment: Newport Bay, Lower

Pollutant: DDT

Decision: List

Weight of Evidence:

This pollutant is being considered for placement on the section 303(d) list under sections 3.5 and 3.6 of the Listing Policy. Multiple lines of evidence are available in the administrative record to assess this pollutant. A sufficient number of tissue samples exceed the OEHHA screening value. Toxicity has been documented in sediment and there is significant biological community degradation in the water segment. However, it is not possible to determine exceedances of sediment samples because there are no applicable sediment quality guidelines for DDT.

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

This conclusion is based on the staff findings that:

- 1. The tissue, sediment, toxicity and community degradation measurements used satisfy the data quality requirements of section 6.1.4 of the Policy.
- 2. The tissue, sediment, toxicity and community degradation data used satisfy the data quantity requirements of section 6.1.5 of the Policy.
- 3. Eighteen of 56 tissue samples taken exceed the total DDT OEHHA screening value. There is significant sediment toxicity and biological community degradation documented. But exceedances in sediment samples cannot be determined because there is no applicable sediment quality guideline for this pollutant. These samples exceed the allowable frequency listed in Table 3.1 of the Listing Policy.
- 4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation:

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

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

Spawning, WI - Wildlife Habitat

Matrix: Tissue

Water Quality Objective/ Water Quality Criterion: Santa Ana River Basin RWQCB Basin Plan: Toxic substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels

which are harmful to human health.

Evaluation Guideline: 100 ng/g (OEHHA Screening Value).

Data Used to Assess Water

Quality:

Two of 5 samples exceeded. All 5 samples were filet composites representing the following species: diamond turbot, shiner surfperch, spotted turbot, and yellowfin croaker. Two samples of shiner surfperch

exceeded guideline (TSMP, 2002).

Spatial Representation: One station was sampled located at Pacific Coast Highway Bridge in

Newport Bay.

Temporal Representation: Samples were collected in May and October 1999.

Data Quality Assessment: CFCP 1998 Year 1 QA Summary of Pesticides and PCBs. California

Department of Fish and Game.

CDFG Fish and Wildlife Water Pollution Control Laboratory Data Quality Assurance Report - 1999 Coastal Fish Contamination Program (CFCP

Year 2). Department of Fish and Game.

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: There is no applicable sediment quality guideline available.

Data Used to Assess Water

Quality:

Three samples were collected (Bay and Greenstein, 2003).

Spatial Representation: Samples were collected at sites 2137, 2136, and 2142 in lower Newport

Bay.

Temporal Representation: Samples were collected in May 2002.

Data Quality Assessment: SCCWRP QAPP was used.

Pollutant-Tissue Numeric Line of Evidence

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: Tissue

Water Quality Objective/ Water Quality Criterion:

Toxic substances shall not be discharged at levels that will bioaccumulate

in aquatic resources to levels harmful to humans.

Evaluation Guideline: The OEHHA screening value is 100 ug/kg (ppb) wet weight (OEHHA,

1999).

Data Used to Assess Water

Quality:

Sixteen of 51 samples exceeded the OEHHA screening value. Ten of 40 sample exceeded in the outer and 6 of 11 exceeded in the inner Lower Newport Bay. Three of the 18 samples collected between June - July 2001

in the outer Lower Bay were 2 - 4 times higher than the OEHHA

screening value of 100 ug/L (TSMP, 2002).

Spatial Representation: Samples were collected in the Lower Newport Bay in the inner and outer

Lower Bay.

Samples were collected in November 2000-January 2001, June-July 2001, Temporal Representation:

> and March-April & August-September 2002. In the outer bay, 1 sample exceeded during November 200 - January 2001; and 6 samples during June - July 2001; and 3 samples exceeded during March-April and August-September 2001. In the inner bay; 1 sample exceeded during June-

July 2001 and 5 during March-April and August-September 2001.

Data Quality Assessment: SCCWRP QAPP was used.

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

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 Water Quality Criterion:

in the water column, sediments or biota shall not adversely affect

beneficial uses (SARWQCB, 1995).

Data Used to Assess Water

Toxicity Results (Bay and Greenstein, 2003).

Quality:

-Five of 15 sediment samples exhibited significantly toxic to amphipods. Fifteen of 15 pore water samples collected had significant effect on

-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

Numeric Line of Evidence Population/Community Degradation

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 for Toxic substances: the concentration of toxic substances in the water column, sediments, and biota shall not

adversely affect beneficial uses.

Data Used to Assess Water

Quality:

Four of 16 samples exhibited significant biological community

degradation (Bay and Greenstein, 2003).

Spatial Representation: Samples were collected from 16 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.

Water Segment: Newport Bay, Lower

Pollutant: Diazinon

Decision: List

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

Policy. Under this section of the Policy, a minimum of one line of evidence is

needed to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. Based on the applicable factor, a TMDL has been developed and approved by USEPA and an approved implementation plan is expected to

result in attainment of the standard.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination in the Water Quality Limited Segments Being

Addressed portion of the section 303(d) list.

SWRCB Staff Recommendation:

After review of the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed in the Water Quality Limited Segments Being Addressed category of the section 303(d) list because a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

Beneficial Use ES - Estuarine Habitat

Information Used to Assess

Water Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Newport Bay Watershed

Diazinon/Chlorpyrifos TMDL was approved by RWQCB on April 4, 2003

and subsequently approved by USEPA on February 13, 2004.

Non-Numeric Objective: The concentration of toxic substance in the water column, sediments or

biota shall not adversely affect beneficial uses.

Water Segment: Newport Bay, Lower

Pollutant: Fecal Coliform

Decision: List

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

Policy. Under this section of the Policy, a minimum of one line of evidence is

needed to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. Based on the applicable factor, a TMDL has been developed and approved by USEPA and an approved implementation plan is expected to result in attainment of the standard. This water segment-pollutant combination

was moved off the section 303(d) list during the 2002 listing cycle.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination in the Water Quality Limited Segments Being

Addressed portion of the section 303(d) list.

SWRCB Staff Recommendation: After review of the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed in the Water Quality Limited Segments Being Addressed category of the section 303(d) list because a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

Beneficial Use R1 - Water Contact Recreation

Information Used to Assess

Water Quality:

TMDL completed in 2000 (SWRCB, 2003).

Non-Numeric Objective:

Water Segment: Newport Bay, Lower

Pollutant: Nutrients

Decision: List

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

Policy. Under this section of the Policy, a minimum of one line of evidence is

needed to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. Based on the applicable factor, a TMDL has been developed and approved by USEPA and an approved implementation plan is expected to result in attainment of the standard. This water segment-pollutant combination

was moved off the section 303(d) list during the 2002 listing cycle.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination in the Water Quality Limited Segments Being

Addressed portion of the section 303(d) list.

SWRCB Staff Recommendation: After review of the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed in the Water Quality Limited Segments Being Addressed category of the section 303(d) list because a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

Beneficial Use WA - Warm Freshwater Habitat

Information Used to Assess

Water Quality:

TMDL completed in 1999 (SWRCB, 2003).

Non-Numeric Objective:

Water Segment: Newport Bay, Lower

Pollutant: Polychlorinated biphenyls

Decision: List

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

under section 3.5 and 3.6 of the Listing Policy.

Currently, Newport Bay is listed for organics. 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 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 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. There were 29 of 130 samples that exceeded the guidelines, and this exceeds the allowable frequency of the Listing Policy. Sediment toxicity is also documented in this water body and this pollutant could cause or contribute to the toxic effect.
- 4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

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

Matrix: Tissue

Water Quality Objective/ Water Quality Criterion: Santa Ana River Basin RWQCB Basin Plan: Toxic substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels

which are harmful to human health.

Evaluation Guideline: 20 ng/g (OEHHA Screening Value).

Data Used to Assess Water

Quality:

Three out of 5 samples exceeded. All 5 samples were filet composites representing the following species: diamond turbot, shiner surfperch, spotted turbot, and yellowfin croaker. Two samples of shiner surfperch and one yellowfin croaker exceeded the guideline (TSMP, 2002).

Spatial Representation: One station was sampled located at Pacific Coast Highway Bridge in

Newport Bay.

Temporal Representation: Samples were collected in May and October 1999.

Data Quality Assessment: CFCP 1998 Year 1 QA Summary: Pesticides and PCBs. California

Department of Fish and Game.

CDFG Fish and Wildlife Water Pollution Control Laboratory Data Quality

Assurance Report. 1999 Coastal Fish Contamination Program (CFCP

Year 2). California Department of Fish and Game.

Numeric Line of Evidence Pollutant-Sediment

Beneficial Use: CM - Commercial and Sport Fishing (CA), MA - Marine Habitat

Matrix: Sediment

Water Quality Objective/ Water Quality Criterion: The concentration of toxic substances in the water column, sediments or

biota shall not adversely affect beneficial uses.

Evaluation Guideline: The sediment quality guideline is 400 ng/g (ppb) dry weight (MacDonald

et al., 2000).

Data Used to Assess Water

Quality:

None of the 3 samples exceeded the sediment quality guideline (Bay and

Greenstein, 2003).

Spatial Representation: Samples were collected at sites 2137, 2136, and 2142 in the Lower

Newport Bay.

Temporal Representation: Samples were collected in May 2002.

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.

Evaluation Guideline: The OEHHA value for fish consumption is 20 ug/kg (ppb) wet weight

(OEHHA, 1999).

Data Used to Assess Water

Quality:

Ten of 50 samples exceeded the OEHHA value (4 of 30 outer and 6 of 11

inner) (TSMP, 2002).

Spatial Representation: Samples were collected in inner and outer 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.

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.

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

Line of Evidence Pollutant-Tissue

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

Evaluation Guideline: The 20 ppb (ww) OEHHA screening value was used.

Data Used to Assess Water

Quality:

Sixteen of 72 samples exceeded the OEHHA value. The summary reports

that 7 of 21 samples were in exceeded in 2001 and 9 of 51 exceeded in

2003 (TSMP, 2002).

Spatial Representation: Samples were collected at the Lower Newport Bay at NPDES monitoring

stations.

Temporal Representation: Assessment summaries were written for data as of 06/2001 and 04/2003.

Water Segment: Newport Bay, Lower

Pollutant: Sedimentation/Siltation

Decision: List

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

Policy. Under this section of the Policy, a minimum of one line of evidence is

needed to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. Based on the applicable factor, a TMDL has been developed and approved by USEPA and an approved implementation plan is expected to result in attainment of the standard. This water segment-pollutant combination

was moved off the section 303(d) list during the 2002 listing cycle.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination in the Water Quality Limited Segments Being

Addressed portion of the section 303(d) list.

SWRCB Staff Recommendation:

After review of the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed in the Water Quality Limited Segments Being Addressed category of the section 303(d) list because a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

Beneficial Use WA - Warm Freshwater Habitat

Information Used to Assess

Water Quality:

TMDL completed in 1999 (SWRCB, 2003).

Non-Numeric Objective:

Water Segment: Newport Bay, Upper (Ecological Reserve)

Pollutant: Chlorpyrifos

Decision: List

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

Policy. Under this section of the Policy, a minimum of one line of evidence is

needed to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. Based on the applicable factor, a TMDL has been developed and approved by USEPA and an approved implementation plan is expected to

result in attainment of the standard.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination in the Water Quality Limited Segments Being

Addressed portion of the section 303(d) list.

SWRCB Staff Recommendation:

After review of the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed in the Water Quality Limited Segments Being Addressed category of the section 303(d) list because a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

Beneficial Use ES - Estuarine Habitat

Information Used to Assess

Water Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Newport Bay Watershed

Diazinon/Chlorpyrifos TMDL was approved by RWQCB on April 4, 2003

and subsequently approved by USEPA on February 13, 2004.

Non-Numeric Objective: The concentration of toxic substance in the water column, sediments or

biota shall not adversely affect beneficial uses (SARWOCB, 1995).

Water Segment: Newport Bay, Upper (Ecological Reserve)

Pollutant: Copper

Decision: List

Weight of Evidence:

This pollutant is being considered for placement on the section 303(d) list under section 3.1 of the Listing Policy. Under section 3.1 one line of evidence is necessary to assess listing status. Four lines of evidence are available in the administrative record to assess this pollutant. A sufficient number of samples exceed the CTR criteria. Sediment toxicity has been documented, but none of the samples exceeded the sediment quality guideline in this water body.

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

This conclusion is based on the staff findings that:

- 1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
- 2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
- 3. Two of 6 samples exceeded the CTR criteria.
- 4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

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 found to be exceeding.

SWRCB Staff Recommendation:

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

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

Matrix: Water

Water Quality Objective/ Water Quality Criterion: CTR Criterion Continuous Concentration for dissolved Copper in

saltwater is 3.1 ug/l for the protection of aquatic life.

Data Used to Assess Water

Quality:

Two of four samples taken at different sampling stations exceeded the

CTR CCC Criteria (Bay and Greenstein, 2003).

Spatial Representation: Four sampling sites located in Upper Newport Bay at North Star Beach

and at the mouth of San Diego Creek.

Temporal Representation: Samples taken between 8/28/01 and 10/29/02.

Data Quality Assessment: USEPA Quality Assurance plan

Numeric Line of Evidence Pollutant-Sediment

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

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 copper is 270 ug/g (ppm) dry

weight (Long et al., 1995).

Data Used to Assess Water

Quality:

None of the 2 samples exceeded the ERM sediment quality guideline One

sample was collected on each day at each location for each metal constituent. Acid volatile results indicate no pore water problem due to

copper (Bay and Greenstein, 2003).

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

Temporal Representation: Samples were collected in November 2001 and 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., 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

Matrix: Water

Water Quality Objective/ Water Quality Criterion: From the CTR saltwater chronic criteria is 3.1 ug/L.

Data Used to Assess Water

Quality:

None of the 2 samples exceeded the CTR criteria.

Spatial Representation: Samples were collected at Upper Newport Bay (NB10)

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

was collected on each day.

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 (Bay and Greenstein, 2003): 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.

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 .

Water Segment: Newport Bay, Upper (Ecological Reserve)

Pollutant: DDT

Decision: List

Weight of Evidence: Th

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.

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

This conclusion is based on the staff findings that:

- 1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
- 2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
- 3. Eight of 23 samples exceeded the 100 ug/kg (ppb) wet weight OEHHA screening value (OEHHA, 1999). For toxicity; 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.

For benthic degradation; 4 of 16 samples exhibited significant biological community degradation. Three samples were collected, however number of exceedances cannot be determined due to the unavailability of an applicable sediment quality guideline for total DDT. These exceedances meet the allowable frequency listed in Table 3.1 of the Listing Policy.

4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation:

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

Lines of Evidence:

Numeric Line of Evidence Population/Community Degradation

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:

Four of 16 samples exhibited significant biological community

degradation (Bay and Greenstein, 2003).

Samples were collected from 16 sites. Spatial Representation:

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

Data Quality Assessment: QAPP Information 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: MA - Marine Habitat, RA - Rare & Endangered Species, SP - Fish

Spawning, WI - Wildlife Habitat

Matrix: Sediment

Water Quality Objective/

Water Quality Criterion: 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 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

Narrative Water Quality Objective: The concentration of toxic substances

significantly toxic to the fertilization test.

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.

Numeric Line of Evidence Pollutant-Tissue

Beneficial Use: CM - Commercial and Sport Fishing (CA), ES - Estuarine Habitat, MA -

Marine Habitat, PO - Hydroelectric Power Generation, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare &

Endangered Species, SH - Shellfish Harvesting, WA - Warm Freshwater

Habitat, WI - Wildlife Habitat

Matrix: Tissue

Water Quality Objective/ Santa Water Quality Criterion: disch

Santa Ana River Basin RWQCB Basin Plan: Toxic substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels

which are harmful to human health.

Evaluation Guideline: 100 ng/g (OEHHA Screening Value).

Data Used to Assess Water

Quality:

Three out of 7 samples exceeded. Filet composite samples of diamond turbot (1997) and striped mullet (2002) were collected. Individual samples of brown smoothhound shark (1998), orangemouth corvina (1999), California halibut (2000), round stingray (2001), and spotted sand bass (2002) were also collected. The guideline was exceeded in the diamond turbot, striped mullet, and spotted sand bass samples (TSMP, 2002).

Spatial Representation: Two stations in Upper Newport Bay were sampled: mouth of the channel,

around the corner into the preserve from the DFG Marine Studies Center (Ecological Reserve); Newport Dunes Aquatic Park across from the public

boat launch ramp (Newport Dunes).

Temporal Representation: Samples were collected annually 1997-2002.

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

Toxic Substances Monitoring Program, 1996-2000. Department of Fish

and Game

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

and Game.

Numeric Line of Evidence Pollutant-Tissue

Beneficial Use: CM - Commercial and Sport Fishing (CA), ES - Estuarine Habitat, MA -

Marine Habitat, PO - Hydroelectric Power Generation, R1 - Water Contact Recreation, R2 - Non-Contact Recreation, RA - Rare &

Endangered Species, SH - Shellfish Harvesting, WA - Warm Freshwater Habitat. WI - Wildlife Habitat

Matrix: Tissue

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

Evaluation Guideline: The OEHHA screening value for DDT is 100 ug/kg (ppb) wet weight

(OEHHA, 1999).

Data Used to Assess Water

Ouality:

Eight of 23 samples were exceeded the OEHHA screening value. Of the 23 samples; 4 of 19 were exceeding in the outer bay and 4 of 4 were

exceeding in the inner bay (Bay and Greenstein, 2003).

Spatial Representation: Samples were collected in inner and outer Upper Newport Bay.

Temporal Representation: Samples were collected in November 2000-January 2001 (0 samples

exceeded), 2 samples exceeded in the outer upper bay between June-July 2001. Three samples exceeded in the out upper bay and 4 samples exceed in the inner upper bay between 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 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

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 is no applicable sediment quality guideline available for total DDT.

Data Used to Assess Water

Quality:

Three samples were collected (Bay and Greenstein, 2003).

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

NB10c.

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

Data Quality Assessment: SCCWRP QAPP was used.

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

Water Segment: Newport Bay, Upper (Ecological Reserve)

Pollutant: Diazinon

Decision: List

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

Policy. Under this section of the Policy, a minimum of one line of evidence is

needed to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. Based on the applicable factor, a TMDL has been developed and approved by USEPA and an approved implementation plan is expected to

result in attainment of the standard.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination in the Water Quality Limited Segments Being

Addressed portion of the section 303(d) list.

SWRCB Staff Recommendation:

After review of the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed in the Water Quality Limited Segments Being Addressed category of the section 303(d) list because a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

Beneficial Use ES - Estuarine Habitat

Information Used to Assess

Water Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Newport Bay Watershed

Diazinon/Chlorpyrifos TMDL was approved by RWQCB on April 4, 2003

and subsequently approved by USEPA on February 13, 2004.

Non-Numeric Objective: The concentration of toxic substance in the water column, sediments or

biota shall not adversely affect beneficial uses (SARWOCB, 1995).

Newport Bay, Upper (Ecological Reserve) **Water Segment:**

Fecal Coliform **Pollutant:**

Decision: List

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

Policy. Under this section of the Policy, a minimum of one line of evidence is

needed to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. Based on the applicable factor, a TMDL has been developed and approved by USEPA and an approved implementation plan is expected to result in attainment of the standard. This water segment-pollutant combination

was moved off the section 303(d) list during the 2002 listing cycle.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination in the Water Quality Limited Segments Being

Addressed portion of the section 303(d) list.

After review of the available data and information for this recommendation, SWRCB Staff **Recommendation:**

SWRCB staff conclude that the water body should be placed in the Water Quality Limited Segments Being Addressed category of the section 303(d) list because a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

Beneficial Use R1 - Water Contact Recreation

Information Used to Assess

Water Quality:

TMDL completed in 2000 (SWRCB, 2003).

Water Segment: Newport Bay, Upper (Ecological Reserve)

Pollutant: Nutrients

Decision: List

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

Policy. Under this section of the Policy, a minimum of one line of evidence is

needed to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. Based on the applicable factor, a TMDL has been developed and approved by USEPA and an approved implementation plan is expected to result in attainment of the standard. This water segment-pollutant combination

was moved off the section 303(d) list during the 2002 listing cycle.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination in the Water Quality Limited Segments Being

Addressed portion of the section 303(d) list.

SWRCB Staff Recommendation:

After review of the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed in the Water Quality Limited Segments Being Addressed category of the section 303(d) list because a TMDL has been approved by USEPA and an implementation plan has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

BI - Preserva.of Bio.Hab.of Spec.Signif., ES - Estuarine Habitat, MA -

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

WI - Wildlife Habitat

Information Used to Assess

Water Quality:

TMDL completed in 1999 (SWRCB, 2003).

Non-Numeric Objective:

Water Segment: Newport Bay, Upper (Ecological Reserve)

Pollutant: Polychlorinated biphenyls

Decision: 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.

There are four lines of evidence are available in the administrative record to assess this pollutant. Based on section 3.5 and 3.6, the site does have

exceedances in tissue.

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

This conclusion is based on the staff findings that:

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

- 2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
- 3. Three of 30 samples exceeded the OEHHA screening value and this does exceed the allowable frequency listed in Table 3.1 of the Listing Policy. Although sediment toxicity has been documented in this water body, none of 4 samples exceeded the dry weight sediment quality guideline.
- 4. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that standards are met.

SWRCB Staff Recommendation:

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

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

Tissue Matrix:

Water Quality Objective/ Water Quality Criterion:

Santa Ana River Basin RWQCB Basin Plan: Toxic substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels

which are harmful to human health.

Data Used to Assess Water Quality:

Three out of 7 samples exceeded. Filet composite samples of diamond turbot (1997) and striped mullet (2002) were collected. Individual samples of brown smoothhound shark (1998), orangemouth corvina (1999), California halibut (2000), round stingray (2001), and spotted sand bass

(2002) were also collected. The guideline was exceeded in the orangemouth corvina, striped mullet, and spotted sand bass samples

(TSMP, 2002).

Two stations in Upper Newport Bay were sampled: mouth of the channel, Spatial Representation:

> around the corner into the preserve from the DFG Marine Studies Center (Ecological Reserve); and Newport Dunes Aquatic Park across from the

public boat launch ramp (Newport Dunes).

Temporal Representation: Samples were collected annually 1997-2002.

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

Toxic Substances Monitoring Program, 1996-2000. Department of Fish

and Game

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

and Game.

Pollutant-Tissue Numeric Line of Evidence

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

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).

The OEHHA screening value for polychlorinated biphenyls is 20 ug/kg Evaluation Guideline:

(ppb) wet weight (OEHHA, 1999).

Data Used to Assess Water

Quality:

None of the 23 samples exceeded the OEHHA screening value (TSMP,

2002).

Spatial Representation: Nineteen samples were collected from the inner bay and 4 from the outer

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 (Bay and Greenstein, 2003): 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.

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 ES - Estuarine Habitat, MA - Marine 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 sediment quality guideline is 400 ng/g (ppb) dry weight (MacDonald

et al., 2000)

Data Used to Assess Water None of the 4 samples exceeded the sediment quality guideline (Bay and

Quality: Greenstein, 2003).

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

NB10c.

Temporal Representation: One sample was collect at NB10 in November 2001, one sample was

collected at each of following sites NB10, NB10b, and NB10c on March

2002.

Water Segment: Newport Bay, Upper (Ecological Reserve)

Pollutant: Sedimentation/Siltation

Decision: List

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

Policy. Under this section of the Policy, a minimum of one line of evidence is

needed to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. Based on the applicable factor, a TMDL has been developed and approved by USEPA and an approved implementation plan is expected to result in attainment of the standard. This water segment-pollutant combination

was moved off the section 303(d) list during the 2002 listing cycle.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination in the Water Quality Limited Segments Being

Addressed portion of the section 303(d) list.

SWRCB Staff Recommendation:

After review of the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed in the Water Quality Limited Segments Being Addressed category of the section 303(d) list because a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

BI - Preserva.of Bio.Hab.of Spec.Signif., ES - Estuarine Habitat, MA -

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

WI - Wildlife Habitat

Information Used to Assess

Water Quality:

TMDL completed in 1999 (SWRCB, 2003).

Water Segment: Peters Canyon Channel

Pollutant: DDT

Decision: List

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

under section 3.5 of the Listing Policy. One line of evidence is available in the

administrative record to assess this pollutant.

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

Limited Segments category.

This conclusion is based on the staff findings that:

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

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

3. Three of the 14 samples exceeded the NAS Guideline and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.

4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation:

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

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

Matrix: Tissue

Water Quality Objective/ Santa Ana River Basin RWQCB Basin Plan: Toxic substances shall not be Water Quality Criterion: discharged at levels that will bioaccumulate in aquatic resources to levels

which are harmful to human health.

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

Data Used to Assess Water

Quality:

Three out of 14 samples exceeded. A total of 13 whole fish composite samples of red shiner and one whole fish composite of flathead minnow were collected. Red shiner samples were collected in 1992-2002. Flathead minnow sample was collected in 2001. The guideline was exceeded in

1992-93 and 1998 samples of red shiner (TSMP, 2002).

Spatial Representation: One station located upstream from Irvine Center Parkway Bridge.

Temporal Representation: Samples were collected annually from 1992-2002.

Data Quality Assessment: Toxic Substances Monitoring Program 1992-93 and 1994-95 Data

Reports.

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

and Game.

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

and Game.

Water Segment: Peters Canyon Channel

Pollutant: Toxaphene

Decision: List

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

under section 3.5 of the Listing Policy. One line of evidence is available in the

administrative record to assess this pollutant.

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

Limited Segments category.

This conclusion is based on the staff findings that:

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

- 2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
- 3. Nine of the 14 samples exceeded the NAS Guideline and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.
- 4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation:

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

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

Matrix: Tissue

Water Quality Objective/ Santa Ana River Basin RWQCB Basin Plan: Toxic substances shall not be Water Quality Criterion: discharged at levels that will bioaccumulate in aquatic resources to levels

which are harmful to human health.

Evaluation Guideline: 100 ng/g [NAS Guideline (whole fish)].

Data Used to Assess Water

Quality:

Nine out of 14 samples exceeded. A total of 13 whole fish composite samples of red shiner and one whole fish composite of flathead minnow were collected. Red shiner samples were collected in 1992-2002. Flathead minnow sample was collected in 2001. The guideline was exceeded in 1992-98 samples of red shiner. Samples from 1999-2002 did not exceed

the guideline (TSMP, 2002).

Spatial Representation: One station located upstream from Irvine Center Parkway Bridge.

Temporal Representation: Samples were collected annually from 1992-2002.

Data Quality Assessment: Toxic Substances Monitoring Program 1992-93 and 1994-95 Data

Reports.

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

and Game.

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

and Game.

Water Segment: Rhine Channel

Pollutant: Copper

Decision: List

Weight of Evidence:

This pollutant is being considered for placement on the section 303(d) list under sections 3.1 and 3.6 of the Listing Policy. Under section 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 including water, tissue and/or sediment data.

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

This conclusion is based on the staff findings that:

- 1. The sediment quality guideline used complies with the requirements of section 2.1.3 of the Policy.
- 2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
- 3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
- 4. Sixteen of 18 samples exceeded the dry weight ERM sediment quality guideline, and 12 of 18 samples exceeded the CTR saltwater chronic. Sediment toxicity has been documented in this water body and this pollutant could cause or contribute to the toxic effect. These samples exceed the allowable frequency listed in Table 3.1 of the Listing Policy.
- 5. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation:

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Sediment

Beneficial Use: ES - Estuarine Habitat, MA - Marine Habitat, SP - Fish Spawning, WI -

Wildlife Habitat

Matrix: Sediment

Water Quality Objective/ Table 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 copper is 270 ug/g (ppm) dry

weight (Long et al., 1995).

Data Used to Assess Water

Quality:

Two of 2 samples exceeded the ERM guideline (Bay and Greenstein,

2003).

Spatial Representation: The samples were collected at one site (NB 3) in the Rhine Channel.

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

Data Quality Assessment: SCCWRP QAPP was used.

Numeric Line of Evidence Pollutant-Water

Beneficial Use: ES - Estuarine Habitat, MA - Marine Habitat, SP - Fish Spawning, WI -

Wildlife Habitat

Matrix: Water

Water Quality Objective/ Water Quality Criterion: The CTR chronic saltwater criteria for copper is 3.1 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:

Three of 3 samples exceeded the CTR criterion. Two of the samples were

collected in the water column and one sample was collected in the

sediment water interface (Bay and Greenstein, 2003).

Spatial Representation: Samples were collected at one site (NB3) in the Rhine Channel.

Temporal Representation: Two samples were collected in November 2001 (one from the water

column and one from the sediment water interface. One water column

sample was collected in March 2002.

Data Quality Assessment: SCCWRP QAPP was used.

Numeric Line of Evidence Pollutant-Sediment

Beneficial Use: ES - Estuarine Habitat, MA - Marine Habitat, 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 copper is 270 ug/g (ppm) dry

weight (Long et al., 1995).

Data Used to Assess Water

Quality:

Fourteen of 15 samples exceeded the ERM. Samples that exceeded the ERM were collected from stations RC1 - RC14 (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 Pollutant-Water

Beneficial Use: ES - Estuarine Habitat, MA - Marine Habitat, SP - Fish Spawning, WI -

Wildlife Habitat

Matrix: Water

Water Quality Objective/ Water Quality Criterion: The CTR chronic saltwater criteria for copper is 3.1 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:

Nine of 15 samples exceeded the CTR criteria. Samples were collected from the sediment-water interface. Sample exceeding were from station

RC1, RC7, RC8, RC9, RC10, RC11, RC12, and RC12 (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: 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 (Bay 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/ Narrative Water Quality Objective: The concentration of toxic substances

Water Quality Criterion: 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).

Samples were collected from 15 stations in Rhine Channel, Newport Bay. Spatial Representation:

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/

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

Ouality:

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 (Bay and Greenstein, 2003).

Spatial Representation: Samples were collected from station RC1 - RC15 in Rhine Channel,

Newport Bay.

Temporal Representation: Samples were collected on May14, 2002.

SCCWRP QAPP was used. Data Quality Assessment:

Water Segment: Rhine Channel

Pollutant: Lead

Decision: List

Weight of Evidence:

This pollutant is being considered for placement on the section 303(d) list under sections 3.1 and 3.6 of the Listing Policy. Under section 3.6 a single line of evidence is necessary to assess listing.

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

This conclusion is based on the staff findings:

- 1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
- 2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
- 3. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
- 4. Nine of 15 samples exceeded the dry weight PEL sediment quality guideline. Sediment toxicity was documented and the pollutant could cause or contribute to the toxic effect. These samples exceed the allowable frequency listed in Table 3.1 of the Listing Policy.
- 5. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation:

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Sediment

Beneficial Use: ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered

Species, SP - Fish Spawning, WI - Wildlife Habitat

Matrix: Sediment

Water Quality Objective/ The concentration of toxic substance in the water column, sediments or

Water Quality Criterion: biota shall not adversely affect beneficial uses (SARWQCB, 1995).

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

Ouality:

Nine of 15 samples exceeded the CTR criteria. Samples were collected from the sediment-water interface. Sample exceeding were from station RC3, RC4, RC5, RC6, RC7, RC8, RC9, and RC13 (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: Sediment

Water Quality Objective/

Water Quality Criterion:

of toxic substances in the water column, sediments, biota shall not

Narrative Water Quality Objective: Toxic substances. The concentration

adversely affect beneficial uses.

Data Used to Assess Water

Quality:

Toxicity Results (Bay 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

Ouality:

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

Matrix: Water

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:

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 (Bay and Greenstein, 2003).

Spatial Representation: Samples were collected from station RC1 - RC15 in Rhine Channel.

Temporal Representation: Samples were collected on May 14, 2002.

Data Quality Assessment: SCCWRP QAPP was used.

Region 8

Water Segment: Rhine Channel

Pollutant: Mercury

Decision: List

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

under sections 3.1 and 3.6 of the Listing Policy. Under section 3.6 a single line

of evidence is necessary to assess listing status.

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

This conclusion is based on the staff findings that:

- 1. The sediment quality guideline used complies with the requirements of section 6.1.3 of the Policy.
- 2. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
- 3.The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
- 4. Fifteen of 15 samples exceeded the dry weight sediment quality guideline and 12 of 18 water samples exceeded the CTR saltwater chronic criteria. Sediment toxicity was documented in this water body and the pollutant could cause or contribute to the toxic effect. These samples exceed the allowable frequency listed in Table 3.1 of the Listing Policy.
- 5. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation:

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Sediment

Beneficial Use: ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered

Species, SP - Fish Spawning, WI - Wildlife Habitat

Sediment Matrix:

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 sediment quality guideline for mercury is 2.1 ug/g (ppm) (PTI

Environmental Services, 1991).

Data Used to Assess Water

Quality:

Fifteen of 15 samples exceeded the sediment quality guideline. Samples were collected from station RC1 - RC15 (Bay and Greenstein, 2003).

Samples were collected from 15 stations in Rhine Channel, Newport Bay. Spatial Representation:

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: 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 (Bay 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/

Narrative Water Quality Objective: The concentration of toxic substances Water Quality Criterion: 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**

ES - Estuarine Habitat, MA - Marine Habitat, RA - Rare & Endangered Beneficial Use:

Species, SP - Fish Spawning, WI - Wildlife Habitat

Water Matrix:

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:

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 (Bay and Greenstein, 2003).

Spatial Representation: Samples were collected from station RC1 - RC15 in Rhine Channel,

Newport Bay.

Temporal Representation: Samples were collected on May14, 2002.

Data Quality Assessment: SCCWRP QAPP was used.

Region 8

Water Segment: Rhine Channel

Pollutant: Polychlorinated biphenyls

Decision: List

Weight of Evidence: Based on the readily available data and information, the weight of evidence

indicates that there is sufficient justification in favor of placing this water segment-pollutant combination on the section 303(d) list in the Water Quality

Limited Segments category.

This conclusion is based on the staff findings that:

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

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

3. Two of the 2 samples exceeded the water quality objectives and this exceeds the allowable frequency of the Listing Policy.

4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

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

Matrix: Tissue

Water Quality Objective/ Santa Ana River Basin RWQCB Basin Plan: Toxic substances shall not be Water Quality Criterion:

discharged at levels that will bioaccumulate in aquatic resources to levels

which are harmful to human health.

Evaluation Guideline: 20 ng/g (OEHHA Screening Value)

Data Used to Assess Water

Quality:

Two out of 2 samples exceeded. Filet composite samples of chub mackerel and yellowfin croaker were collected. Chub mackerel were collected in 1997 and yellowfin croaker were collected in 1999. The

guideline was exceeded in both samples (TSMP, 2002).

Spatial Representation: One station located in the Rhine Channel by the Cannery Restaurant at the

upper end of the channel.

Temporal Representation: Samples were collected 7/11/97 and 8/10/99.

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

Toxic Substances Monitoring Program, 1996-2000. Department of Fish

and Game

Water Segment: San Diego Creek Reach 1

Pollutant: Fecal Coliform

Decision: List

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

Policy. Under this section of the Policy, a minimum of one line of evidence is

needed to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. Based on the applicable factor, a TMDL has been developed and approved by USEPA and an approved implementation plan is expected to result in attainment of the standard. This water segment-pollutant combination

was moved off the section 303(d) list during the 2002 listing cycle.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination in the Water Quality Limited Segments Being

Addressed portion of the section 303(d) list.

SWRCB Staff Recommendation: After review of the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed in the Water Quality Limited Segments Being Addressed category of the section 303(d) list because a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

Beneficial Use R1 - Water Contact Recreation

Information Used to Assess

Water Quality:

TMDL completed in 2000 (SWRCB, 2003).

Water Segment: San Diego Creek Reach 1

Pollutant: Nutrients

Decision: List

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

Policy. Under this section of the Policy, a minimum of one line of evidence is

needed to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. Based on the applicable factor, a TMDL has been developed and approved by USEPA and an approved implementation plan is expected to result in attainment of the standard. This water segment-pollutant combination

was moved off the section 303(d) list during the 2002 listing cycle.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination in the Water Quality Limited Segments Being

Addressed portion of the section 303(d) list.

SWRCB Staff
Recommendation:

After review of the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed in the Water Quality Limited Segments Being Addressed category of the section 303(d) list because a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

Beneficial Use WA - Warm Freshwater Habitat

Information Used to Assess

Water Quality:

TMDL completed in 1999 (SWRCB, 2003).

Water Segment: San Diego Creek Reach 1

Pollutant: Sedimentation/Siltation

Decision: List

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

Policy. Under this section of the Policy, a minimum of one line of evidence is

needed to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. Based on the applicable factor, a TMDL has been developed and approved by USEPA and an approved implementation plan is expected to result in attainment of the standard. This water segment-pollutant combination

was moved off the section 303(d) list during the 2002 listing cycle.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination in the Water Quality Limited Segments Being

Addressed portion of the section 303(d) list.

SWRCB Staff Recommendation:After review of the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed in the Water

SWRCB staff conclude that the water body should be placed in the Water Quality Limited Segments Being Addressed category of the section 303(d) list because a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

Beneficial Use WA - Warm Freshwater Habitat

Information Used to Assess

Water Quality:

TMDL completed in 1999 (SWRCB, 2003).

Water Segment: San Diego Creek Reach 1

Pollutant: Selenium

Decision: List

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

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

evidence is necessary to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. A large number of samples exceed the California Toxic Rule (CTR)

criteria.

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

Limited Segments category.

This conclusion is based on the staff findings that:

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

- 2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
- 3. Seven of 7 samples exceeded the CTR chronic saltwater criteria (USEPA, and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.
- 4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation:

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

pollutant contributes to or causes the problem.

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

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

Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix: Water

Ouality:

Water Quality Objective/ From the CTR, the freshwater chronic standard for selenium is 5 ug/L

Water Quality Criterion: (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 Four of 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 1.

Temporal Representation: Samples were collected on March 7, May 25, 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.

Water Segment: San Diego Creek Reach 1

Pollutant: Zinc

Decision: List

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

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

evidence is necessary to assess listing status.

Currently San Diego Creek Reach 1 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 placing this water segment-pollutant combination on the section 303(d) list in the Water Quality Limited Segments category.

This conclusion is based on the staff findings that:

- 1. The data used satisfies the data quality requirements of section 6.1.4 of the Policy.
- 2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
- 3. Four of the four samples exceeded the CTR criteria, and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.
- 4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Water

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

Warm Freshwater Habitat, WI - Wildlife Habitat

Matrix: Water

Water Quality Objective/ The hardness adjusted CTR freshwater chronic for zinc is 528.5 ug/L Water Quality Criterion:

(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).

Data Used to Assess Water

Quality:

Four of 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).

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

Reach 1.

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

2002.

Two averaged samples were collected during wet weather (March 7 and Environmental Conditions:

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.

Water Segment: San Diego Creek Reach 2

Pollutant: Diazinon

Decision: List

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

Policy. Under this section of the Policy, a minimum of one line of evidence is

needed to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. Based on the applicable factor, a TMDL has been developed and approved by USEPA and an approved implementation plan is expected to

result in attainment of the standard.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination in the Water Quality Limited Segments Being

Addressed portion of the section 303(d) list.

SWRCB Staff Recommendation:

After review of the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed in the Water Quality Limited Segments Being Addressed category of the section 303(d) list because a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

Beneficial Use WA - Warm Freshwater Habitat

Information Used to Assess

Water Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Newport Bay Watershed

Diazinon/Chlorpyrifos TMDL was approved by RWQCB on April 4, 2003

and subsequently approved by USEPA on February 13, 2004.

Non-Numeric Objective:

Water Segment: San Diego Creek Reach 2

Pollutant: Nutrients

Decision: List

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

Policy. Under this section of the Policy, a minimum of one line of evidence is

needed to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. Based on the applicable factor, a TMDL has been developed and approved by USEPA and an approved implementation plan is expected to result in attainment of the standard. This water segment-pollutant combination

was moved off the section 303(d) list during the 2002 listing cycle.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination in the Water Quality Limited Segments Being

Addressed portion of the section 303(d) list.

SWRCB Staff Recommendation:

After review of the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed in the Water Quality Limited Segments Being Addressed category of the section 303(d) list because a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

Beneficial Use WA - Warm Freshwater Habitat

Information Used to Assess

Water Quality:

TMDL completed in 1999 (SWRCB, 2003).

Non-Numeric Objective:

Water Segment: San Diego Creek Reach 2

Pollutant: Sedimentation/Siltation

Decision: List

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

Policy. Under this section of the Policy, a minimum of one line of evidence is

needed to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. Based on the applicable factor, a TMDL has been developed and approved by USEPA and an approved implementation plan is expected to result in attainment of the standard. This water segment-pollutant combination

was moved off the section 303(d) list during the 2002 listing cycle.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination in the Water Quality Limited Segments Being

Addressed portion of the section 303(d) list.

SWRCB Staff Recommendation:

After review of the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed in the Water Quality Limited Segments Being Addressed category of the section 303(d) list because a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

Beneficial Use WA - Warm Freshwater Habitat

Information Used to Assess

Water Quality:

TMDL completed in 1999 (SWRCB, 2003).

Water Segment: San Diego Creek Reach 2

Pollutant: Unknown Toxicity

Decision: List

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

Policy. Under this section of the Policy, a minimum of one line of evidence is

needed to assess listing status.

One line of evidence is available in the administrative record to assess this pollutant. Based on the applicable factor, a TMDL has been developed and approved by USEPA and an approved implementation plan is expected to

result in attainment of the standard.

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification in favor of placing this water segment-pollutant combination in the Water Quality Limited Segments Being

Addressed portion of the section 303(d) list.

SWRCB Staff Recommendation:

After review of the available data and information for this recommendation, SWRCB staff conclude that the water body should be placed in the Water Quality Limited Segments Being Addressed category of the section 303(d) list because a TMDL has been approved by USEPA and an implementation plan

has been approved.

Lines of Evidence:

Line of Evidence Remedial Program in Place

Beneficial Use WA - Warm Freshwater Habitat

Information Used to Assess

Water Quality:

A TMDL and implementation plan has been approved for this water segment-pollutant combination. The Newport Bay Watershed

Diazinon/Chlorpyrifos TMDL was approved by RWQCB on April 4, 2003

and subsequently approved by USEPA on February 13, 2004.

Non-Numeric Objective: The concentration of toxic substance in the water column, sediments or

biota shall not adversely affect beneficial uses (SARWOCB, 1995).

Water Segment: Santa Ana Delhi Channel

Pollutant: Toxaphene

Decision: List

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

under section 3.5 of the Listing Policy. One line of evidence is available in the

administrative record to assess this pollutant.

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

Limited Segments category.

This conclusion is based on the staff findings that:

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

- 2. The data used satisfies the data quantity requirements of section 6.1.5 of the Policy.
- 3. Two of the 7 samples exceeded the NAS guideline and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.
- 4. Pursuant to section 3.11 of the Listing Policy, no additional data and information are available indicating that standards are not met.

SWRCB Staff Recommendation:

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

Beneficial Use: CM - Commercial and Sport Fishing (CA), R1 - Water Contact Recreation

Matrix: Tissue

Water Quality Objective/ Santa Ana River Basin RWQCB Basin Plan: Toxic substances shall not be discharged at levels that will bioaccumulate in aquatic resources to levels

which are harmful to human health.

Evaluation Guideline: 100 ng/g - NAS Guideline (Whole fish)

Data Used to Assess Water

Quality:

Two out of 7 samples exceeded. A total of 7 whole fish composite samples were collected: two red shiner (1997 & 2000), two mosquitofish

(1999 & 200), one each, striped mullet (1998), tilapia (2000), and fathead minnow (2001). The guideline was exceeded in 1997 red shiner and 1998

striped mullet (TSMP, 2002).

Spatial Representation: One station located at the Mesa Drive bridge.

Temporal Representation: Samples were collected annually in 1997-2001.

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

Toxic Substances Monitoring Program, 1996-2000. Department of Fish

and Game.

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

and Game.

Water Segment: Seal Beach

Pollutant: Polychlorinated biphenyls

Decision: List

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

under section 3.5 of the Listing Policy. One line of evidence is available in the

administrative record to assess this pollutant.

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

Limited Segments category.

This conclusion is based on the staff findings that:

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

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

3. Five of the 5 samples exceeded the OEHHA Screening Value and this exceeds the allowable frequency listed in Table 3.1 of the Listing Policy.

4. Pursuant to section 3.11 of the Listing Policy, no additional data and

information are available indicating that standards are not met.

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

Lines of Evidence:

Numeric Line of Evidence Pollutant-Tissue

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

Matrix: Tissue

Water Quality Objective/ Santa Ana River Basin RWQCB Basin Plan: Toxic substances shall not be Water Quality Criterion: discharged at levels that will bioaccumulate in aquatic resources to levels

which are harmful to human health.

Evaluation Guideline: 20 ng/g (OEHHA Screening Value).

Data Used to Assess Water

Quality:

Five out of 5 samples exceeded. Three white croaker and two yellowfin $\,$

croaker samples were collected. All samples were filet composites. All

samples exceeded guideline (TSMP, 2002).

Spatial Representation: One station at Seal Beach was sampled.

Temporal Representation: Samples were collected in May and October 1999.

Data Quality Assessment: CFCP 1998 Year 1 QA Summary: Pesticides and PCBs. California

Department of Fish and Game.

CDFG Fish and Wildlife Water Pollution Control Laboratory Data Quality

Assurance Report. 1999 Coastal Fish Contamination Program (CFCP

Year 2). California Department of Fish and Game.

Santa Ana Region (8)

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

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Water Segment: Elsinore, Lake

Pollutant: Sedimentation/Siltation

Decision: Delist

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

under section 4 of the Listing Policy. The Policy calls for the delisting of waters if the decision is found to be faulty and it is demonstrated that the listing would not have occurred in the absence of such faulty data. One testimonial line of evidence is available in the administrative record to assess this

pollutant.

The original listing was based on the assumption that nutrient impacts were associated with increases of sediment rates but recent nutrient TMDL implementation have shown that all nutrients are in the dissolved form and thus

not associated with sediment inputs

Based on the readily available data and information, the weight of evidence indicates that there is sufficient justification for removing this listing from the water quality limited segment list for this water body pollutant combination.

This conclusion is based on the findings that the original listing assumption cannot be made and therefore listing is faulty. Pursuant to section 4.11 of the Listing Policy, no additional data and information are available indicating that

standards are not met.

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

exceeded.

Lines of Evidence:

Line of Evidence Testimonial Evidence

Beneficial Use WA - Warm Freshwater Habitat

Non-Numeric Objective: Inland surface waters shall not contain suspended or settleable solids in

amounts which causes a nuisance or adversely affect beneficial uses.

Data Used to Assess Water Quality:

Lake Elsinore was originally placed in the 303(d) list by the Regional Board for sedimentation and siltation because it was believed that since the lake is impacted by nutrients the impact were associated with increases of sediment rates to the lake. However, during recent lake nutrient TMDL implementation it was found that the all the nutrients were in the dissolved form and are thus not associated with sediments. Increased sediment rates have been documented in a recent study (3.6 mm/yr from 18th and 19th century and 12.7 mm/yr in the 20th century) but there is no evidence to support that beneficial uses are impacted as a result of this increase. The Regional Board staff believes that the original listing was faulty and the water body pollutant combination should be removed from the 303(d) list.