2001 Water Quality Assessment Worksheets

Coastal Water Bodies

1. Anaheim Bay:

- Beneficial Uses: REC1, REC 2, NAV, BIOL, RARE, WILD, SPWN, MAR
- Hydrologic Unit: 801.11
- Total Water Body Size: 180 acres
- Size Impaired: Unknown at this time
- Extent of Impairment: Unknown at this time
- Data Analyses:
  Coastal Fish Contamination Data:
  - Shiner Surfperch – 1/1 exceeded the MTRL ddepp_w standard of 32.0 ug/kg
  - Yellow Croaker - 1/1 exceeded the MTRL ddepp_w standard of 32.0 ug/kg
  - Yellowfin Croaker – 1/1 exceeded the MTRL Hg standard of 0.00037 ug/g
  - Diamond Turbot – 1/1 exceeded the MTRL Hg standard of 0.00037 ug/g
  - 2/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Dieldrin standard of 0.7 ug/kg
  - 2/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" total PCB standard of 5.3 ug/kg
  - Diamond Turbot – 0/1 exceeded the NAS Hg standard of 0.5 ug/g
  - Diamond Turbot – 0/1 exceeded the FDA Hg standard of 1.0 ug/g
  - Black Surfperch - 0/1 exceeded the NAS Hg standard of 0.5 ug/g
  - Black Surfperch – 0/1 exceeded the FDA Hg standard of 1.0 ug/g
  - Yellowfin Croaker – 0/1 exceeded the NAS Hg standard of 0.5 ug/g
  - Yellowfin Croaker – 0/1 exceeded the FDA Hg standard of 1.0 ug/g
  - Diamond Turbot - 0/1 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
  - Diamond Turbot – 0/1 exceeded the NAS Endosulfan standard of 0.1 ug/g
  - Black Surfperch - 0/1 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
  - Black Surfperch – 0/1 exceeded the NAS Endosulfan standard of 0.1 ug/g

- Diamond Turbot – 0/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg
- Black Surfperch – 0/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg
- Shiner Surfperch – 0/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg
- Yellow Croaker – 0/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg

Orange County PFRD data:

- 0/1 exceeded the "EBE 4-Day Average" Cd standard of 9.3 ug/L
- 0/1 exceeded the "EBE 4-Day Average" Cr standard of 50 ug/L
- 1/1 exceeded the "EBE 4-Day Average" Cu standard of 3.1 ug/L
- 0/1 exceeded the "EBE 4-Day Average" Pb standard of 8.1 ug/L
- 1/1 exceeded the "EBE 4-Day Average" Ni standard of 8.2 ug/L
- 0/1 exceeded the "EBE 4-Day Average" Zn standard of 81 ug/L

Anaheim Bay / Navy Marsh

- Data Analyses:

Coastal Fish Contamination Data:

- 0/1 exceeded the FDA Hg standard of 1.0 ppm wet weight
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Aldrin standard of 0.33 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Endosulfan I standard of 64,800 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Endosulfan II standard of 64,800 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Endosulfan Sulfate standard of 64,800 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" alpha HCH standard of 1.7 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" beta HCH standard of 6.0 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" gamma HCH standard of 8.2 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" heptachlor standard of 2.3 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" heptachlor epoxide standard of 1.2 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" heptachlorobenzene standard of 6.7 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" toxaphene standard of 9.8 ug/kg

Orange County PFRD data

- 0/2 exceeded the "EBE 4-Day Average" Cd standard of 9.3 ug/L
- 0/2 exceeded the "EBE 4-Day Average" Cr standard of 50 ug/L
- 2/2 exceeded the "EBE 4-Day Average" Cu standard of 3.1 ug/L
- 0/2 exceeded the "EBE 4-Day Average" Pb standard of 8.1 ug/L
- 2/2 exceeded the "EBE 4-Day Average" Ni standard of 8.2 ug/L
- 0/2 exceeded the "EBE 4-Day Average" Zn standard of 81 ug/L

- Potential Sources: Unknown at this time

- Recommendation: More monitoring due to not enough data points available per parameter to reach a conclusion for impairment and insufficient data to back up results. Water quality assessment study currently underway

- TMDL Priority: None at this time

- TMDL Start Date: Not applicable at this time

- TMDL End Date: Not applicable at this time

2. Bolsa Chica:

- Beneficial Uses: REC 1, REC 2, BIOL, WILD, RARE, SPWN, MAR, EST
- Hydrologic Unit: 801.11
- Total Water Body Size: 294 acres
- Size Impaired: Unknown at this time
- Extent of Impairment: Unknown at this time
- Data Analyses:
  Orange County PFRD data:
  - 0/4 exceeded the "EBE 4-Day Average" Cd standard of 9.3 ug/L
  - 0/4 exceeded the "EBE 4-Day Average" Cr standard of 50 ug/L
  - 4/4 exceeded the "EBE 4-Day Average" Cu standard of 3.1 ug/L
  - 0/4 exceeded the "EBE 4-Day Average" Pb standard of 8.1 ug/L
  - 4/4 exceeded the "EBE 4-Day Average" Ni standard of 8.2 ug/L
  - 0/4 exceeded the "EBE 4-Day Average" Zn standard of 81 ug/L
  - Bolsa Chica State Beach Life Guard Station # 18 posted 0 times in 3 years
  - Bolsa Chica State Beach Life Guard Station # 23 posted 1 time in 3 years during dry season
  - Bolsa Chica State Beach Reserve posted 0 times in 3 years
  - Bolsa Chica State Beach Warner Avenue posted 0 times in 3 years
- Potential Sources: urban runoff
- Recommendation: More monitoring due to not enough data points available per parameter to reach a conclusion for impairment and insufficient data to back up results.
- TMDL Priority: None at this time
- TMDL Start Date: Not applicable at this time
- TMDL Start Date: Not applicable at this time

3. Buck Gully Creek:

- Beneficial Uses: MUN, REC 1 AND REC 2, WARM
- Hydrologic Unit: 801.11
- Total Water Body Size:
- Size Impaired: Unknown at this time
- Extent of Impairment: Unknown at this time
- Data Analyses:
  Orange County Health Care Agency Data:
  - 230/239 exceeded the 1995 Basin Plan MUN< 100 orgs/100 mL Total Coliform standard
  - 18/56 (30 day periods) exceeded the 1995 Basin Plan REC 2 Fecal Coliform standard
  - 13/56 30 day log means exceeded the 1995 Basin Plan REC 1 standard for Fecal Coliform and 18/56 exceeded but do not have enough samples
- Potential Sources: Unknown at this time, possible urban runoff sources
- Recommendation: Listing on 303(d) list for MUN, REC 1 and REC 2 beneficial uses
- TMDL Priority: Medium
- TMDL Start Date: 2008
- TMDL End Date: 2011

NOTE BASIN PLAN STANDARDS FOR BACTERIA FOR STREAMS:

- MUN -Total coliform less than 100 orgs/100 ml
- REC-1 - Fecal coliform log mean less than 200 organisms/100 ml based on five or more samples/30 day period, and not more than 10% of the samples exceed 400 organisms/100 ml for any 30 day period
- REC-2 – Fecal coliform average less than 2000 organisms/100 ml and not more than 10% of samples exceed 4000 organisms/100 ml for any 30 day period

4. Huntington Harbour:

- Beneficial Uses: NAV, REC 1, REC 2, COMM, WILD, RARE, SPWN, MAR
- Hydrologic Unit: 801.11
- Total Water Body Size: 150 acres
- Size Impaired: Unknown at this time
- Extent of Impairment: Unknown at this time
- Data Analyses:
  Orange County PFRD data:
  - 0/4 exceeded the "EBE 4-Day Average" Cd standard of 9.3 ug/L
  - 0/4 exceeded the "EBE 4-Day Average" Cr standard of 50 ug/L
  - 4/4 exceeded the "EBE 4-Day Average" Cu standard of 3.1 ug/L
  - 0/4 exceeded the "EBE 4-Day Average" Pb standard of 8.1 ug/L
  - 3/4 exceeded the "EBE 4-Day Average" Ni standard of 8.2 ug/L
  - 0/4 exceeded the "EBE 4-Day Average" Zn standard of 81 ug/L

Huntington Harbour at Edinger Street

- Data Analyses:
  Statewide Mussel Watch data:
  - 2/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Dieldrin standard of 0.7 ug/kg
  - 2/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" total PCB standard of 5.3 ug/kg
  - 1/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" toxaphene standard of 9.8 ug/kg
  - 0/2 exceeded the FDA Hg standard of 1.0 ppm wet weight
  - 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Aldrin standard of 0.33 ug/kg
  - 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Endosulfan I standard of 64,800 ug/kg
  - 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Endosulfan II standard of 64,800 ug/kg
  - 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Endosulfan Sulfate standard of 64,800 ug/kg
  - 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" alpha HCH standard of 1.7 ug/kg
  - 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" beta HCH standard of 6.0 ug/kg

- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" gamma HCH standard of 8.2 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" helptachlor standard of 2.3 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" heptachlor epoxide standard of 1.2 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" heptachlorobenzene standard of 6.7 ug/kg

Huntington Harbour at Warner Ave. Bridge

- Data Analyses:

State Wide Mussel Watch Data

- 2/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Dieldrin standard of 0.7 ug/kg
- 1/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" toxaphene standard of 9.8 ug/kg
- 2/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" total PCB standard of 5.3 ug/kg
- 0/2 exceeded the FDA Hg standard of 1.0 ppm wet weight
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Aldrin standard of 0.33 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Endosulfan I standard of 64,800 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Endosulfan II standard of 64,800 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Endosulfan Sulfate standard of 64,800 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" alpha HCH standard of 1.7 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" beta HCH standard of 6.0 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" gamma HCH standard of 8.2 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" helptachlor standard of 2.3 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" heptachlor epoxide standard of 1.2 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" heptachlorobenzene standard of 6.7 ug/kg

Orange County PFRD data:

- 0/2 exceeded the "EBE 4-Day Average" Cd standard of 9.3 ug/L
- 0/2 exceeded the "EBE 4-Day Average" Cr standard of 50 ug/L
- 2/2 exceeded the "EBE 4-Day Average" Cu standard of 3.1 ug/L
- 0/2 exceeded the "EBE 4-Day Average" Pb standard of 8.1 ug/L
- 1/2 exceeded the "EBE 4-Day Average" Ni standard of 8.2 ug/L
- 0/2 exceeded the "EBE 4-Day Average" Zn standard of 81 ug/L

- Potential Sources: Urban runoff
- Recommendation: More monitoring due to not enough data points available per parameter to reach a conclusion for impairment and insufficient data to back up results. Water Quality Assessment study currently underway.
- TMDL Priority: None at this time
- TMDL Start Date: Not applicable at this time
- TMDL End Date: Not applicable at this time

5. Huntington Beach State Park:

- Beneficial Uses: REC 1 AND REC 2, MAR
- Hydrologic Unit: 801.11
- Total Water Body Size: 3 miles
- Size Impaired: Unknown at this time
- Extent of Impairment: Unknown at this time
- Data Analyses:

Coastal Fish Contamination Data:

- Shiner Surfperch – 1/1 exceeded the MTRL ddepp_w standard of 32 ug/kg
- Barred Surfperch – 0/1 exceeded the MTRL endosulfan standard of 64.8 mg/kg
- Barred Surfperch – 0/1 exceeded the NAS endosulfan standard of 0.1 ug/g
- Shiner Surfperch – 0/1 exceeded the MTRL endosulfan standard of 64.8 mg/kg
- Shiner Surfperch – 0/1 exceeded the NAS endosulfan standard of 0.1 ug/g
- Barred Surfperch – 0/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg

Orange County Health Care Agency:

- Huntington Beach off Brookhurst posted 5 times in 3 years during the wet and dry season. Heal the Bay grade is B during the dry and F during the wet season.
- Huntington Beach off Magnolia posted 4 times in 3 years during the wet and dry season. Heal the Bay grade is D during the dry and F during the wet season.
- Huntington Beach off SCE plant posted 0 times in 3 years. Heal the Bay grade is C during the dry and F during the wet season.
- Huntington Beach off Santa Ana River posted 2 times in 3 years during the dry and wet season. Heal the Bay grade is A during the dry and F during the wet season.
- Huntington Beach off life guard station 2 posted 1 in 3 years during the wet season. Heal the Bay grade unavailable.
- Huntington Beach off 150 feet up coast and down coast of Newland Avenue posted 1 in 3 years during the dry season. Heal the Bay grade is C during the dry and F during the wet.

all postings to apply to listing

- Huntington Beach Santa Ana River to 200 feet up coast of OCSD posted 0 times in 3 years.
- Huntington Beach off life guard stations 3, 7, 4 posted 0 times in 3 years.
- Huntington Beach 300 feet up coast of Santa Ana River posted 0 times in 3 years. Heal the Bay grade is A in dry and F in wet season.
- Huntington Beach 1000 feet up coast of Santa Ana River posted 0 times in 3 years. Heal the Bay grade is A in dry and F in wet season.
- Huntington Beach 500 feet up coast of Beach Blvd to Santa Ana River posted 0 times in 3 years. Heal the Bay grade unavailable.
- Huntington Beach 500 feet up coast of Magnolia to Santa Ana River posted 0 times in 3 years. Heal the Bay grade is unavailable.
- Huntington Beach 500 feet up coast of Newland to 500 feet down coast of Magnolia posted 0 times in 3 years. Heal the Bay grade is unavailable.

Huntington Beach Pier

- Data Analyses:

Coastal Fish Contamination Data:

- Yellowfin Croaker – 1/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg
- Yellowfin Croaker (pier)- 1/1 exceeded the MTRL Hg standard of 0.00037 ug/g
- Yellowfin Croaker (pier) – 0/1 exceeded the NAS Hg standard of 0.5 ug/g
- Yellowfin Croaker (pier) – 0/1 exceeded the FDA Hg standard of 1.0 ug/g
- Barred Surfperch (pier) – 1/1 exceeded the MTRL Hg standard of 0.00037 ug/g
- Barred Surfperch (pier) – 0/1 exceeded the NAS Hg standard of 0.5 ug/g
- Barred Surfperch (pier) – 0/1 exceeded the FDA Hg standard of 1.0 ug/g
- Shiner Surfperch (pier) -1/1 exceeded the MTRL Hg standard of 0.00037 ug/g
- Shiner Surfperch (pier) – 0/1 exceeded the NAS Hg standard of 0.5 ug/g
- Shiner Surfperch (pier) – 0/1 exceeded the FDA Hg standard of 1.0 ug/g
- Yellowfin Croaker (pier) – 0/1 exceeded the MTRL endosulfan standard of 64.8 mg/kg

- Yellowfin Croaker (pier) – 0/1 exceeded the NAS endosulfan standard of 0.1 ug/g

Huntington City Beach

- *Orange County Health Care Agency:*
  - Dog Beach posted 1 time in 3 years during wet season- Heal the Bay Report Card grade unavailable for this segment of the beach.
  - Bluffs posted 0 times in 3 years – Heal the Bay Report Card grade is A for dry and D for wet seasons.
  - 17th Street Beach posted 0 times in 3 years – Heal the Bay Report Card grade is A for dry and F for wet seasons.
  - Jack's Snackbar Beach posted 0 times in 3 years – Heal the Bay Report Card grade is A for dry and D for wet seasons.
  - Guardlife station #9, 6, 1, 11, 15, and 24 posted 0 times in 3 years – Heal the Bay Report Card grade unavailable for these segements of the beach.
  - 150 feet up and down coast of of Huntington Street posted 0 times in 3 years. Heal the Bay Report Card grade is unavailable for this segment of the beach.
  - 500 feet up and down coast of Hunt Street posted 0 times in 3 years. Heal the Bay Report Card grade unavailable for this segment of the beach.

- Potential Sources: Unknown at this time

- Recommendation:
  - Place Huntington State Beach (from Newland Ave to Santa Ana River) on 303(d) list for impairment of REC 1, 2 beneficial uses due to bacterial contamination
  - Place Dog Beach on the Priority 1 monitoring category due to recommendation from the Orange County Health Care Agency that the most recent data shows that the beach does not meet the 7 day criteria used to determine impairment.
  - Overall, more fish tissue monitoring due to not enough data points available per parameter to reach a conclusion for impairment and insufficient data to back up results.
- TMDL Priority: High
- TMDL Start Date: 2007
- TMDL End Date: 2011

6. Los Trancos Creek (Crystal Cove Creek)

- Beneficial Uses: MUN REC 1 AND REC 2, WARM

- Hydrologic Unit: 801.11

- Total Water Body Size:

- Size Impaired: Unknown at this time

- Extent of Impairment: Unknown at this time

- Data Analyses:

  Dr. Ford's data from Irvine Company sampling data:

  - LTU upstream - 0/1 (one sample available per 30 day period) exceeded the 1995 Basin Plan REC 1 Fecal Coliform standard
  - LT bridge – 1/1 (one sample available per 30 day period) exceeded the 1995 Basin Plan REC 1 Fecal Coliform standard
  - LTU upstream – 7/7 exceeded the 1995 Basin Plan MUN< 100 orgs/100 mL Total Coliform standard
  - LT bridge - 7/7 exceeded the 1995 Basin Plan MUN< 100 orgs/100 mL Total Coliform standard
  - LT1 mouth – 3/6 exceeded the 1995 Basin Plan MUN< 100 orgs/100 mL Total Coliform standard
  - LTU upstream – 0/4 (30 day periods) exceeded the 1995 Basin Plan REC 2 Fecal Coliform standard
  - LT bridge – 1/4 (30 day periods) exceeded the 1995 Basin Plan REC 2 Fecal Coliform standard
  - LT1 mouth – [not enough sample available]
  - LT1 mouth - 0/4 (30 day periods) exceeded the 1995 Basin Plan REC 2 avg <2000 orgs/mL and 10% sample < 4000 orgs/mL Fecal Coliform standard

  Orange County Health Care Agency data:

  - 264/269 exceeded the 1995 Basin Plan MUN< 100 orgs/100 mL Total Coliform standard
  - CC upstream – 114/117 exceeded the 1995 Basin Plan MUN<100 orgs/100 mL Total Coliform standard
  - 22/56 (30 day periods) exceeded the 1995 Basin Plan REC 2 Fecal Coliform standard
  - CC upstream - 25/36 (30 day periods) exceeded the 1995 Basin Plan REC 2 Fecal Coliform standard
  - CC upstream - 16/36 30 day log means exceeded the 1995 Basin Plan REC 1 standard for Fecal Coliform and 13/36 exceeded but do not have enough samples
  - 24/56 30 day log means exceeded the 1995 Basin Plan REC 1 standard for Fecal Coliform and 22/56 exceeded but do not have enough samples
  - Crystal Cove Los Trancos Beach posted 0 times in 3 years. Hela the Bay grade is A in dry season and A in wet season.
  - Crystal Cove State Park Treasure Cove posted 0 times in 3 years. Heal the Bay grade is A in wet season and A in dry season.

7. Muddy Creek:

- Beneficial Uses: MUN, REC 1 AND REC 2, WARM
- Hydrologic Unit: 801.11
- Total Water Body Size:
- Size Impaired: Unknown at this time
- Extent of Impairment: Unknown at this time
- Data Analyses:
  Dr Ford's Irvine Company monitoring data:
  - MC1 – [not enough sample available]
  - MC1 mouth – 2/4 exceeded the 1995 Basin Plan MUN< 100 orgs/100 mL Total Coliform standard
  - MC1 mouth – 0/4 (30 day periods) exceeded the 1995 Basin Plan REC 2 avg <2000 orgs/mL and 10% sample < 4000 orgs/mL Fecal Coliform standard
  - 75/108 exceeded the 1995 Basin Plan MUN< 100 orgs/100 mL Total Coliform standard
  - 16/53 (30 day periods) exceeded the 1995 Basin Plan REC 2 Fecal Coliform standard
  - 11/54 30 day log means exceeded the 1995 Basin Plan REC 1 standard for Fecal Coliform and 18/54 exceeded but do not have enough samples
  - Crystal Cove Muddy Creek Beach
- Potential Sources: all sources unknown
- Recommendation: List on 303(d) list for impairment of REC 1, 2 and MUN beneficial uses
- TMDL Priority: medium
- TMDL Start Date: 2008
- TMDL End Date: 2011

- Potential Sources: all sources unknown, possible urban runoff
- Recommendation: List on the 303(d) list for impairment of REC 1, REC 2, and MUN beneficial uses
- TMDL Priority: Medium
- TMDL Start Date: 2008
- TMDL End Date: 2011

8. Newport Bay:

- Beneficial Uses: NAV, REC 1, REC 2, COMM, WILD, RARE, SPWN, MAR, SHEL
- Hydrologic Unit: 801.11
- Total Water Body Size: 752 acres and 700 acres (1452 acres overall)
- Size Impaired: Unknown at this time
- Extent of Impairment: Unknown at this time

Overall Bay

- Data Analyses:

Coastal Fish Contamination Data:

- Shiner Surfperch – 1/2 exceeded the MTRL Hg standard of 0.00037 ug/g
- Yellowfin Croaker – 1/1 exceeded the MTRL Hg standard of 0.00037 ug/g
- Yellowfin Croaker – 1/1 exceeded the MTRL ddepp_w standard of 32.0 ug/kg
- Shiner Surfperch– 2/2 exceeded the MTRL ddepp_w standard of 32.0 ug/kg
- Spotted Turbot – 1/1 exceeded the MTRL ddepp_w standard of 32.0 ug/kg
- Diamond Turbot – 0/1 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
- Diamond Turbot - 0/1 exceeded the NAS Endosulfan standard of 0.1 ug/g
- Shiner Surfperch – 0/2 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
- Shiner Surfperch – 0/2 exceeded the NAS Endosulfan standard of 0.1 ug/g
- Spotted Turbot – 0/1 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
- Spotted Turbot – 0/1 exceeded the NAS Endosulfan standard of 0.1 ug/g
- Yellowfin Croaker – 0/1 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
- Yellowfin Croaker – 0/1 exceeded the NAS Endosulfan standard of 0.1 ug/g

Newport Bay Above PCH Bridge

- Data Analyses:

Coastal Fish Contamination Data:

- Diamond Turbot – 0/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg
- Shiner Surfperch – 2/2 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg
- Spotted Turbot – 1/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg
- Yellowfin Croaker – 1/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg
- Diamond Turbot – 0/1 exceeded the MTRL Hg standard of 0.00037 ug/g
- Diamond Turbot – 0/1 exceeded the NAS Hg standard of 0.5 ug/g
- Diamond Turbot – 0/1 exceeded the FDA Hg standard of 1.0 ug/g
- Shiner Surfperch – 1/2 exceeded the MTRL Hg standard of 0.00037 ug/g
- Shiner Surfperch – 0/2 exceeded the NAS Hg standard of 0.5 ug/g
- Shiner Surfperch – 0/2 exceeded the FDA Hg standard of 1.0 ug/g
- Spotted Turbot – 0/1 exceeded the MTRL Hg standard of 0.00037 ug/g
- Spotted Turbot – 0/1 exceeded the NAS Hg standard of 0.5 ug/g
- Spotted Turbot – 0/1 exceeded the FDA Hg standard of 1.0 ug/g
- Yellowfin Croaker – 1/1 exceeded the MTRL Hg standard of 0.00037 ug/g
- Yellowfin Croaker – 0/1 exceeded the NAS Hg standard of 0.5 ug/g
- Yellowfin Croaker – 0/1 exceeded the FDA Hg standard of 1.0 ug/g

Newport Pier

- Data Analyses:
  - Spotted Turbot – 1/1 exceeded the MRTL Hg standard of 0.00037 ug/g
  - Spotted Turbot – 0/1 exceeded the NAS Hg standard of 0.5 ug/g
  - Spotted Turbot – 0/1 exceeded the FDA Hg standard of 1 ug/g
  - Barred Surfperch – 2/2 exceeded the MRTL Hg standard of 0.00037 ug/g
  - Barred Surfperch – 0/2 exceeded the NAS Hg standard of 0.5 ug/g
  - Barred Surfperch – 0/2 exceeded the FDA Hg standard of 1 ug/g

- California Corbina – 1/1 exceeded the MRTL Hg standard of 0.00037 ug/g
- California Corbina – 0/1 exceeded the NAS Hg standard of 0.5 ug/g
- California Corbina – 0/1 exceeded the FDA Hg standard of 1 ug/g
- Yellowfin Croaker – 1/1 exceeded the MRTL Hg standard of 0.00037 ug/g
- Yellowfin Croaker – 0/1 exceeded the NAS Hg standard of 0.5 ug/g
- Yellowfin Croaker – 0/1 exceeded the FDA Hg standard of 1 ug/g
- White Croaker – 1/1 exceeded the MRTL Hg standard of 0.00037 ug/g
- White Croaker – 0/1 exceeded the NAS Hg standard of 0.5 ug/g
- White Croaker – 0/1 exceeded the FDA Hg standard of 1 ug/g
- Spotted Turbot - 0/1 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
- Spotted Turbot – 0/1 exceeded the NAS Endosulfan standard of 0.1 ug/g
- Barred Surfperch - 0/1 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
- Barred Surfperch – 0/1 exceeded the NAS Endosulfan standard of 0.1 ug/g
- California Cobrina - 0/1 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
- California Cobrina – 0/1 exceeded the NAS Endosulfan standard of 0.1 ug/g
- Yellowfin Croaker - 0/1 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
- Yellowfin Croaker – 0/1 exceeded the NAS Endosulfan standard of 0.1 ug/g
- Spotted Turbot – 0/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg
- California Corbina – 0/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg
- Yellowfin Croaker – 0/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg
- Barred Surfperch – 1/2 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg
- White Croaker – 1/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg

Newport Beach Pier

- Data Analyses:

Coastal Fish Contamination Data:

- Barred Surfperch – 0/1 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
- Barred Surfperch – 0/1 exceeded the NAS Endosulfan standard of 0.1 ug/g
- White Croaker - – 0/1 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
- White Croaker – 0/1 exceeded the NAS Endosulfan standard of 0.1 ug/g

Newport Jetty

- Data Analyses:

Coastal Fish Contamination Data:

- Spotted Scorpionfish – 1/1 exceeded the MRTL Hg standard of 0.00037 ug/g
- Spotted Scorpionfish – 0/1 exceeded the NAS Hg standard of 0.5 ug/g
- Spotted Scorpionfish – 0/1 exceeded the FDA Hg standard of 1 ug/g
- Spotted Turbot – 2/2 exceeded the MRTL Hg standard of 0.00037 ug/g
- Spotted Turbot – 0/2 exceeded the NAS Hg standard of 0.5 ug/g
- Spotted Turbot – 0/2 exceeded the FDA Hg standard of 1 ug/g
- Spotted Scorpionfish – 0/1 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
- Spotted Scorpionfish – 0/1 exceded the NAS Endosulfan standard of 0.1 ug/g
- Spotted Turbot – 0/2 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
- Spotted Turbot – 0/2 exceeded the NAS Endosulfan standard of 0.1 ug/g
- Black Surfperch – 0/1 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
- Black Surfperch - 0/1 exceded the NAS Endosulfan standard of 0.1 ug/g
- Shiner Surfperch – 0/1 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
- Shiner Surfperch - 0/1 exceded the NAS Endosulfan standard of 0.1 ug/g
- Spotted Scorpionfish – 0/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg
- Spotted Turbot – 0/2 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg
- Black Surfperch – 0/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg

- Shiner Surfperch – 1/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg
- Black Surfperch – 1/1 exceeded the MTRL Hg standard of 0.00037 ug/g
- Black Surfperch – 0/1 exceeded the NAS Hg standard of 0.5 ug/g
- Black Surfperch – 0/1 exceeded the FDA Hg standard of 1.0 ug/g
- Shiner Surfperch – 0/1 exceeded the MTRL Hg standard of 0.00037 ug/g
- Shiner Surfperch – 0/1 exceeded the NAS Hg standard of 0.5 ug/g
- Shiner Surfperch – 0/1 exceeded the FDA Hg standard of 1.0 ug/g

Balboa Pier

- Data Analyses:

Coastal Fish Contamination Data:

- Walleye Surfperch – 1/1 exceeded the MTRL Hg standard of 0.00037 ug/g
- Walleye Surfperch – 0/1 exceeded the NAS Hg standard of 0.5 ug/g
- Walleye Surfperch – 0/1 exceeded the FDA Hg standard of 1.0 ug/g
- Diamond Turbot – 2/2 exceeded the MTRL Hg standard of 0.00037 ug/g
- Diamond Turbot – 0/2 exceeded the NAS Hg standard of 0.5 ug/g
- Diamond Turbot – 0/2 exceeded the FDA Hg standard of 1.0 ug/g
- Barred Surfperch – 1/1 exceeded the MTRL Hg standard of 0.00037 ug/g
- Barred Surfperch – 0/1 exceeded the NAS Hg standard of 0.5 ug/g
- Barred Surfperch – 0/1 exceeded the FDA Hg standard of 1.0 ug/g
- Walleye Surfperch - 0/1 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
- Walleye Surfperch – 0/1 exceeded the NAS Endosulfan standard of 0.1 ug/g
- Diamond Turbot - 0/1 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
- Diamond Turbot – 0/1 exceeded the NAS Endosulfan standard of 0.1 ug/g
- Barred Surfperch - 0/1 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
- Barred Surfperch – 0/1 exceeded the NAS Endosulfan standard of 0.1 ug/g
- Diamond Turbot – 0/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg

- Walleye Surfperch – 1/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg
- Diamond Turbot – 0/2 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg
- Barred Surfperch – 1/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg

- Potential Sources: Unknown at this time

- Recommendation: More monitoring due to not enough data points available per parameter to reach a conclusion for impairment and insufficient data to back up results.

- TMDL Priority: none at this time

- TMDL Start Date: not applicable at this time

- TMDL End Date: not applicable at this time

9. Newport Bay Beaches:

- Beneficial Uses: REC 1 AND REC 2, MAR
- Hydrologic Unit: 801.11
- Total Water Body Size:
- Size Impaired: Unknown at this time
- Extent of Impairment: Unknown at this time
- Data Analyses:
  - *Coastal Fish Contamination Data:*
    - Walleye Surfperch 1/1 exceeded the MTRL Hg standard of 0.00037 ug/g
    - Barred Surfperch – 2/2 exceeded the MTRL Hg standard of 0.00037 ug/g
    - California Corbina – 1/1 exceeded the MTRL Hg standard of 0.00037 ug/g
    - California Corbina – 0/1 exceeded the NAS Hg standard of 0.5 ug/g
    - California Corbina – 0/1 exceeded the FDA Hg standard of 1.0 ug/g
    - White Croaker – 1/1 exceeded the MTRL Hg standard of 0.00037 ug/g
    - Walleye Surfperch – 1/1 exceeded the MTRL Ocean Waters dield_w standard of 0.2 ug/kg
    - Walleye Surfperch – 1/1 exceeded the MTRL Bays and Estuaries dield_w standard of 0.7 ug/kg
    - Walleye Surfperch – 0/1 exceeded the NAS dield_w standard of 0.1 ug/g
    - Walleye Surfperch – 0/1 exceeded the FDA dield_w standard of 0.3 ug/g
    - Walleye Surfperch – 1/1 exceeded the ddepp_w standard of 32.0 ug/kg
    - Barred Surfperch – 1/2 exceeded the MTRL ddepp_w standard of 32.0 ug/kg
    - Shiner Surfperch – 1/1 exceeded the MTRL ddepp_w standard of 32.0 ug/kg
    - White Croaker - 1/1 exceeded the MTRL ddepp_w standard of 32.0 ug/kg
    - Walleye Surfperch – 0/1 exceeded the NAS Hg standard of 0.5 ug/g
    - Walleye Surfperch – 0/1 exceeded the FDA Hg standard of 1.0 ug/g

- Barred Surfperch – 0/2 exceeded the NAS Hg standard of 0.5 ug/g
- Barred Surfperch – 0/2 exceeded the FDA Hg standard of 1.0 ug/g
- Shiner Surfperch – 0/1 exceeded the MTRL Hg standard of 0.00037 ug/g
- Shiner Surfperch – 0/1 exceeded the NAS Hg standard of 0.5 ug/g
- Shiner Surfperch – 0/1 exceeded the FDA Hg standard of 1.0 ug/g
- White Croaker – 0/1 exceeded the NAS Hg standard of 0.5 ug/g
- White Croaker - 0/1 exceeded the FDA Hg standard of 1.0 ug/g
- Walleye Surfperch - 0/1 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
- Walleye Surfperch – 0/1 exceeded the NAS Endosulfan standard of 0.1 ug/g
- Barred Surfperch - 0/2 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
- Barred Surfperch – 0/2 exceeded the NAS Endosulfan standard of 0.1 ug/g
- California Cobrina - 0/1 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
- California Cobrina – 0/1 exceeded the NAS Endosulfan standard of 0.1 ug/g
- Shiner Surfperch - 0/1 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
- Shiner Surfperch – 0/1 exceeded the NAS Endosulfan standard of 0.1 ug/g
- White Croaker - 0/1 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
- White Croaker – 0/1 exceeded the NAS Endosulfan standard of 0.1 ug/g
- California Corbina – 0/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg

- *Orange County Health Care Agency data:*

BAY
- Newport Beach 38th Street Beach posted 5 times in 3 years during the wet and dry season. Heal the Bay grade is D for dry season and F for wet season.

BAY
- Newport Beach 43rd Street Beach posted 1 time in 3 years during the dry season and Heal the Bay grade is F during the dry and F during the wet season.

OCHCA
- Newport Beach 52-53rd Street Beach posted 0 times in 3 years. Heal the Bay Grade not available.

BAY

- Newport Beach 19th Street Beach posted 2 times in 3 years during the dry and wet seasons. Heal the Bay grade is A during the dry and F during the wet season.

OCEAN

- Newport Beach 1000 feet down coast of Santa Ana River posted 1 time in 3 years during the wet season.
- Newport Beach 300 feet down coast of Santa Ana River posted 0 times in 3 years.
- Newport Beach 10th Street Beach posted 0 times in 3 years and Heal the Bay grade is A in dry season and F in the wet season.
- Newport Beach 15th Street Beach posted 0 times in 3 years. Heal the Bay grade is A in the dry season and F in the wet season.
- Corona del Mar Beach posted 0 times in 3 years. Heal the Bay grade is A in the dry season and F in the wet season.
- Little Corona Beach posted 1 time in 3 years. Heal the Bay grade is B for the dry season and F in the wet season.

- Potential Sources: Unknown at this time

- Recommendation:

  - Place Little Corona Beach on the Priority 1 monitoring category due to recommendation from the Orange County Health Care Agency that the most recent data shows that the beach does not meet the 7 day criteria used to determine impairment.
  - No action recommended for Newport Beach from 19th Street to 43rd Street because this beach is on the Newport Bay side and not on the ocean side.
  - List Newport Beach segment that stretches from the Santa Ana River to 1000 feet down coast from Santa Ana River on 303(d) list for impairment of REC 1, 2 beneficial uses due to bacterial contamination

  - Overall, more fish tissue monitoring due to not enough data points available per parameter to reach a conclusion for impairment and insufficient data to back up results.

- TMDL Priority: High

- TMDL Start Date: 2005

- TMDL End Date: 2009

10. Ocean Waters

- Beneficial Uses: REC 1, REC 2, NAV, MAR, COMM, WILD, RARE, SPWN, SHEL
- Hydrologic Unit: 801.11
- Total Water Body Size:
- Size Impaired: Unknown at this time
- Extent of Impairment: Unknown at this time

Emma Oil Platform

- *Coastal Fish Contamination Data:*
- Data Analyses:
  - Black Surfperch – 1/1 exceeded the MTRL Hg standard of 0.00037 ug/g
  - Black Surfperch – 0/1 exceeded the NAS Hg standard of 0.5 ug/g
  - Black Surfperch – 0/1 exceeded the FDA Hg standard of 1.0 ug/g
  - Kelp Bass - 1/1 exceeded the MTRL Hg standard of 0.00037 ug/g
  - Kelp Bass – 0/1 exceeded the NAS Hg standard of 0.5 ug/g
  - Kelp Bass - 0/1 exceeded the FDA Hg standard of 1.0 ug/g
  - Opaleye – 1/1 exceeded the MTRL Hg standard of 0.00037 ug/g
  - Opaleye – 0/1 exceeded the NAS Hg standard of 0.5 ug/g
  - Opaleye - 0/1 exceeded the FDA Hg standard of 1.0 ug/g
  - Black Surfperch – 0/1 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
  - Black Surfperch – 0/1 exceeded the NAS Endosulfan standard of 0.1 ug/g
  - Kelp Bass - 0/1 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
  - Kelp Bass – 0/1 exceeded the NAS Endosulfan standard of 0.1 ug/g
  - Opaleye - 0/1 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
  - Opaleye – 0/1 exceeded the NAS Endosulfan standard of 0.1 ug/g
  - Black Surfperch – 0/2 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg
  - Kelp Bass - exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg

Esther Oil Platform

- *Coastal Fish Contamination Data:*

- Data Analyses:
  - Kelp Bass – 1/1 exceeded the MTRLs in Ocean Waters dield_w standard of 0.2 ug/kg
  - Kelp Bass – 1/1 exceeded the MTRLs in Bays and Estuaries dield_w standard of 0.7 ug/kg
  - Kelp Bass – 0/1 exceeded the NAS dield_w standard of 0.1 ug/g
  - Kelp Bass – 0/1 exceeded the FDA dield_w standard of 0.3 ug/g
  - Black Surfperch – 1/1 exceeded the MTRL Hg standard of 0.00037 ug/g
  - Black Surfperch – 0/1 exceeded the NAS Hg standard of 0.5 ug/g
  - Black Surfperch – 0/1 exceeded the FDA Hg standard of 1.0 ug/g
  - Kelp Bass – 1/1 exceeded the MTRL Hg standard of 0.00037 ug/g
  - Kelp Bass – 0/1 exceeded the NAS Hg standard of 0.5 ug/g
  - Kelp Bass – 0/1 exceeded the FDA Hg standard of 1.0 ug/g
  - Black Surfperch – 1/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg
  - Kelp Bass – 1/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg

- Potential Sources: Unknown at this time

- Recommendation: More monitoring due to not enough data points available per parameter to reach a conclusion for impairment and insufficient data to back up results.

- TMDL Priority: None at this time

- TMDL Start Date: Not applicable at this time

- TMDL End Date: Not applicable at this time

11. Pelican Point Creek

- Beneficial Uses: MUN, REC 1 AND REC 2, WARM
- Hydrologic Unit: 801.11
- Total Water Body Size:
- Size Impaired: entire creek
- Extent of Impairment: Unknown at this time
- Data Analyses:

Mouth of Creek

- Data Analyses:
  Orange County Health Care Agency data;
  - 225/230 exceeded the 1995 Basin Plan MUN< 100 orgs/100 mL Total Coliform standard
  - 31/55 (30 day periods) exceeded the 1995 Basin Plan REC 2 Fecal Coliform standard
  - 1/56 30 day log means exceeded the 1995 Basin Plan REC 1 standard for Fecal Coliform and 48/56 exceeded but do not have enough samples
- Potential Sources: unknown at this time. Possible urban runoff
- Recommendation: List creek only on the 303 (d) List of impaired water bodies due to REC 1, REC 2, and MUN beneficial use impairments
- TMDL Priority: Medium
- TMDL Start Date: 2008
- TMDL End Date: 2011

12. Pelican Point Middle Creek

- Beneficial Uses: MUN, REC 1 AND REC 2, WARM
- Hydrologic Unit: 801.11
- Total Water Body Size:
- Size Impaired: entire creek
- Extent of Impairment: Unknown at this time
- Data Analyses:
  Orange County Health Care Agency data:
  - 126/133 exceeded the 1995 Basin Plan MUN< 100 orgs/100 mL Total Coliform standard
  - 12/50 30 day log means exceeded the 1995 Basin Plan REC 1 standard for Fecal coliform and 12/50 exceeded but do not have enough samples
  - 11/50 30 day periods exceeded the 1995 Basin Plan REC 2 standard for Fecal coliform
- Potential Sources: unknown at this time. Possible urban runoff
- Recommendation: List creek only on the 303 (d) List of impaired water bodies due to REC 1, REC 2, and MUN beneficial use impairments
- TMDL Priority: Medium
- TMDL Start Date: 2008
- TMDL End Date: 2011

13. Pelican Hill Waterfall

- Beneficial Uses: MUN, REC 1 AND REC 2, WARM
- Hydrologic Unit: 801.11
- Total Water Body Size:
- Size Impaired: entire creek
- Extent of Impairment: Unknown at this time
- Data Analyses:
  Orange County Health Care Agency data:
  - 14/64 (30 day periods) exceeded the 1995 Basin Plan REC 2 Fecal Coliform standard
  - 208/220 exceeded the 1995 Basin Plan MUN< 100 orgs/100 mL Total Coliform standard
  - 11/56 30 day log means exceeded the 1995 Basin Plan REC 1 standard for Fecal Coliform and 17/56 exceeded but do not have enough samples
  - Pelican Point Beach posted 0 times in 3 years and Heal the Bay grade is A for dry season and B during wet season.
- Potential Sources: unknown at this time. Possible urban runoff
- Recommendation: List creek only on the 303 (d) List of impaired water bodies due to REC 1, REC 2, and MUN beneficial use impairments
- TMDL Priority: Medium
- TMDL Start Date: 2008
- TMDL End Date: 2011

14. San Diego Creek

- Beneficial Uses: REC 1 and REC 2
- Hydrologic Unit: 801.11
- Total Water Body Size:
- Size Impaired: All of reach 1
- Extent of Impairment: Unknown at this time
- Data Analyses:
  Regional Water Quality Control Board Report:
  - November 24, 1998 TMDL report for Newport Bay indicates that 22 times /22 weeks of sampling, the creek exceeded the total and fecal coliform standards for rec 1 and rec 2.
- Potential Sources: All sources unknown. Potential urban run-off source.
- Recommendation: List Reach 1 on 303 d list for impairment of Rec 1 and Rec 2 beneficial uses
- TMDL Priority: High
- TMDL Start Date: 2010
- TMDL End Date: 2015

15. Santa Ana Delhi Channel

- Beneficial Uses: REC 1, REC 2,
- Hydrologic Unit: 801.11
- Total Water Body Size:
- Size Impaired: Unknown at this time
- Extent of Impairment: Unknown at this time
- Data Analyses:
  Orange County Health Care Agency Data:
  - 11/11 times exceeded the Basin Plan MUN< 100 orgs/100 mL Total Coliform standard.

  Regional Water Quality Control Board Report:
  - November 24, 1998 TMDL report for Newport Bay indicates that 22 times /22 weeks of sampling, the creek exceeded the total and fecal coliform standards for rec 1 and rec 2.
- Potential Sources: All sources unknown. Potential urban run-off source.
- Recommendation: List Reach 1 on 303 d list for impairment of Mun, Rec 1 and Rec 2 beneficial uses
- TMDL Priority: High
- TMDL Start Date: 2010
- TMDL End Date: 2015

16. Seal Beach:

- Beneficial Uses: REC 1 and REC 2
- Hydrologic Unit: 801.11
- Total Water Body Size: 1 mile
- Size Impaired: Unknown at this time
- Extent of Impairment: Unknown at this time
- Data Analyses:

Coastal Fish Contamination Data:

- White Croaker – 0/3 exceeded the NAS Endosulfan standard of 0.1 ug/g
- White Croaker – 0/3 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
- Yellowfin Croaker – 0/2 exceeded the NAS Endosulfan standard of 0.1 ug/g
- Yellowfin Croaker – 0/2 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
- White Croaker – 1/3 exceeded the "MTRLs for Carcinogens in Ocean Waters" Hg standard of 0.00037 ug/g
- White Croaker – 0/3 exceeded the NAS Hg standard of 0.5 ug/g
- White Croaker – 0/3 exceeded the FDA Hg standard of 1.0 ug/g
- Yellowfin Croaker – 2/2 exceeded the MTRL's Hg standard of 0.00037 ug/g
- Yellowfin Croaker – 0/2 exceeded the NAS Hg standard of 0.5 ug/g
- Yellowfin Croaker – 0/2 exceeded the FDA Hg standard of 1.0 ug/g
- White Croaker – 0/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg
- Yellowfin Croaker – 0/2 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg
- White Croaker-off – 0/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg
- White Croaker-on – 1/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg

- *Orange County Health Care Agency Data:*

  - 1St Street Beach posted 1 time in 3 years during the wet season. Heal the Bay grade is B during the dry season and F during the wet season.

- 8th Street Beach posted 1 time in 3 years during the wet season. Heal the Bay grade is B during the dry season and F during the wet season.
- 14th Street Beach posted 0 times in 3 years. Heal the Bay grade is A during the dry season and C during the wet season.
- State Beach posted 0 times in 3 years. Heal the Bay grade unavailable.
- Breakwater posted 2 times in 3 years during the wet season. Heal the Bay grade not available.

- Potential Sources: Unknown at this time

- Recommendation:

  - List Seal Beach from San Gabriel River breakwater (1st Street) to Main Street on 303(d) list for impairment of REC 1, 2 and MUN beneficial uses due to bacterial contamination

  - More fish tissue monitoring due to not enough data points available per parameter to reach a conclusion for impairment and insufficient data to back up results.

- TMDL Priority: High

- TMDL Start Date: 2007

- TMDL End Date: 2011

Inland Water Bodies

1. Canyon Lake:

- Beneficial Uses: MUN, AGR, GWR, REC1, REC2, WARM, WILD
- Hydrologic Unit: 802.11
- Total Water Body Size: 600 acres
- Size Impaired: 52 acres
- Extent of Impairment: Unknown at this time
- Data Analyses: Independent study on East Bay indicates bottom depth rising rapidly due to sedimentation
- Potential Sources: urban runoff, non point source, agricultural runoff
- Recommendation: List East Bay of Canyon Lake on 303(d) list as impaired for REC 1, REC 2 and WARM beneficial uses
- TMDL Priority: Medium
- TMDL Start Date: 2008
- TMDL End Date: 2011

2. Cucamonga Creek:

- Beneficial Uses: MUN, IND, PROC, GWR, POW, REC1, REC2, LWRM, COLD, WILD, SPWN
- Hydrologic Unit: 801.24
- Total Water Body Size: 13 miles
- Size Impaired: Unknown at this time
- Extent of Impairment: Unknown at this time
- Data Analyses:
  Orange County Water District Data:
  - 0/1 (1/year) - exceeded the "CTR for Inorganic Freshwater Aquatic Life Protection" Cd standard of 5.7 ug/L
  - 0/1 (1/year) - exceeded the "CTR for Inorganic Freshwater Aquatic Life Protection" Cu standard of 17.0 ug/L
  - 0/1 (1/year) - exceeded the "CTR for Inorganic Freshwater Aquatic Life Protection" Pb standard of 86.0 ug/L
  - 0/1 (1/year) - exceeded the "CTR for Inorganic Freshwater Aquatic Life Protection" Ni standard of 580 ug/L
  - 0/1 (1/year) - exceeded the "CTR for Inorganic Freshwater Aquatic Life Protection" Se standard of 20 ug/L
  - 0/1 (1/year) - exceeded the "CTR for Inorganic Freshwater Aquatic Life Protection" Zn standard of 150 ug/L
- Potential Sources: Unknown at this time
- Recommendation: More monitoring due to not enough data points available per parameter to reach a conclusion for impairment and insufficient data to back up results.
- TMDL Priority: None at this time
- TMDL Start Date: Not applicable at this time
- TMDL End Date: Not applicable at this time

3. Chino Creek:

- Beneficial Uses: REC1, REC2, WARM, LWRM, WILD, RARE
- Hydrologic Unit: 801.21
- Total Water Body Size: 2 miles
- Size Impaired: Unknown at this time
- Extent of Impairment: Unknown at this time
- Data Analyses:

  Orange County Water District Data:

  - Reach 1 – 0/1 exceeded the "Avg CTR Contin. Conc. (4-day avg)" Arsenic standard of 150 ug/L
  - Reach 1 – 0/1 exceeded the "Avg CTR Contin. Conc. (4-day avg)" Cadmium standard of 2.4 ug/L
  - Reach 1 – 0/1 exceeded the "Avg CTR Contin. Conc. (4-day avg)" Lead standard of 2.8 ug/L
  - Reach 1 – 0/1 exceeded the "Avg CTR Contin. Conc. (4-day avg)" Copper standard of 9.7 ug/L
  - Reach 1 – 0/1 exceeded the Cal EPA Tox Rule Criteria Max. Conc. 1 hr Avg nickel standard of 430 ug/L (Based on hardness = 92.6)
  - Reach 1 – 0/1 exceeded the Cal EPA Tox Rule Criteria Max. Conc. 1 hr Avg nickel standard of 950 ug/L (Based on hardness = 235)
  - Reach 1 – 0/1 exceeded the Cal EPA Tox Rule Criteria Max. Conc. 1 hr Avg nickel standard of 950 ug/L (Based on hardness = 234)
  - Reach 1 – 0/1 exceeded the Cal EPA Tox Rule Criteria Max. Conc. 1 hr Avg nickel standard of 910 ug/L (Based on hardness = 220)
  - Reach 1 – 0/1 exceeded the Cal EPA Tox Rule Criteria Max. Conc. 1 hr Avg nickel standard of 510 ug/L (Based on hardness = 113)
  - Reach 1 – 0/1 exceeded the Cal EPA Tox Rule Criteria Max. Conc. 1 hr Avg cadmium standard of 3.8 ug/L (Based on hardness = 92.6)
  - Reach 1 – 0/1 exceeded the Cal EPA Tox Rule Criteria Max. Conc. 1 hr Avg cadmium standard of 11 ug/L (Based on hardness = 235)
  - Reach 1 – 0/1 exceeded the Cal EPA Tox Rule Criteria Max. Conc. 1 hr Avg cadmium standard of 11 ug/L (Based on hardness = 234)

- Reach 1 – 0/1 exceeded the Cal EPA Tox Rule Criteria Max. Conc. 1 hr Avg cadmium standard of 10 ug/L (Based on hardness = 220)
- Reach 1 – 0/1 exceeded the Cal EPA Tox Rule Criteria Max. Conc. 1 hr Avg cadmium standard of 4.7 ug/L (Based on hardness = 113)
- Reach 1 – 0/1 exceeded the Cal EPA Tox Rule Criteria Max. Conc. 1 hr Avg lead standard of 58 ug/L (Based on hardness = 92.6)
- Reach 1 – 0/1 exceeded the Cal EPA Tox Rule Criteria Max. Conc. 1 hr Avg lead standard of 160 ug/L (Based on hardness = 235)
- Reach 1 – 0/1 exceeded the Cal EPA Tox Rule Criteria Max. Conc. 1 hr Avg lead standard of 160 ug/L (Based on hardness = 234)
- Reach 1 – 0/1 exceeded the Cal EPA Tox Rule Criteria Max. Conc. 1 hr Avg lead standard of 150 ug/L (Based on hardness = 220)
- Reach 1 – 0/1 exceeded the Cal EPA Tox Rule Criteria Max. Conc. 1 hr Avg lead standard of 72 ug/L (Based on hardness = 113)

- Potential Sources: Unknown at this time

- Recommendation: More monitoring due to not enough data points available per parameter to reach a conclusion for impairment and insufficient data to back up results.

- TMDL Priority: None at this time

- TMDL Start Date: Not applicable at this time

- TMDL End Date: Not applicable at this time

4. City Creek:

- Beneficial Uses: MUN (applies upstream of Orange Ave (Redlands); downstream, water is exempted from MUN), AGR, GWR, REC1, REC2, WARM, WILD, RARE

- Hydrologic Unit:

- Total Water Body Size:

- Size Impaired: Unknown at this time

- Extent of Impairment: Unknown at this time

- Data Analyses:
  San Bernardino Co. NPDES Stormwater Monitoring Program Data:
  - (wet weather) 3/13 exceed the Basin Plan COD objective of 25 mg/L
  - (dry weather) 0/2 exceed the Basin Plan COD objective of 25 mg/L
  - (wet weather) 0/13 exceed the Basin Plan TDS objective of 300 mg/L
  - (dry weather) 0/2 exceed the Basin Plan TDS objective of 300 mg/L
  - (wet weather) 0/13 exceed the Basin Plan Na objective of 30 mg/L
  - (dry weather) 0/2 exceed the Basin Plan Na objective of 30 mg/L
  - (wet weather) 0/13 exceed the Basin Plan SO4 objective of 60 mg/L
  - (dry weather) 0/2 exceed the Basin Plan SO4 objective of 60 mg/L
  - (wet weather) 0/13 exceed the Basin Plan Cl objective of 20 mg/L
  - (dry weather) 0/2 exceed the Basin Plan Cl objective of 20 mg/L
  - (wet weather) 1/13 exceed the Basin Plan total N objective of 5 mg/L
  - (dry weather) 0/2 exceed the Basin Plan total N objective of 5 mg/L
  - (wet weather) 1/13 exceed the Basin Plan hardness objective of 190 mg/L
  - (dry weather) 0/2 exceed the Basin Plan hardness objective of 190 mg/L

- Potential Sources: Unknown at this time

- Recommendation: More monitoring due to not enough data points available per parameter to reach a conclusion for impairment and insufficient data to back up results.

- TMDL Priority: None at this time

- TMDL Start Date: Not applicable at this time

- TMDL End Date: Not applicable at this time

5. Mill Creek (Prado Area):

- Beneficial Uses: REC1, REC2, WARM, WILD, RARE
- Hydrologic Unit: 801.58
- Total Water Body Size: 4 miles
- Size Impaired:
- Extent of Impairment:
- Data Analyses:
  Orange County Water District Data:
  - 0/8 exceeded the "August CTR Continuous Cocn. 4 Day Avg" antimony standard of 14 ug/L
  - 0/8 exceeded the "August CTR Continuous Cocn. 4 Day Avg" copper standard of 13000 ug/L
  - 0/8 exceeded the "August CTR Continuous Cocn. 4 Day Avg" mercury standard of 0.05 ug/L
  - 0/8 exceeded the "August CTR Continuous Cocn. 4 Day Avg" nickel standard of 610 ug/L
- Potential Sources: Unknown at this time
- Recommendation: More monitoring due to not enough data points available per parameter to reach a conclusion for impairment and insufficient data to back up results.
- TMDL Priority: None at this time
- TMDL Start Date: Not applicable at this time
- TMDL End Date: Not applicable at this time

6. San Timoteo Creek:

- Beneficial Uses: GWR, REC1, REC2, WARM, WILD
- Hydrologic Unit: 801.60
- Total Water Body Size:
- Size Impaired: Unknown at this time
- Extent of Impairment: Unknown at this time
- Data Analyses: no ambient water quality data submitted
- Potential Sources: Unknown at this time
- Recommendation: More monitoring due to not enough data points available per parameter to reach a conclusion for impairment and insufficient data to back up results.
- TMDL Priority: None at this time
- TMDL Start Date: Not applicable at this time
- TMDL End Date: Not applicable at this time

7. Santa Ana River, Reaches 2 & 3:

- Beneficial Uses: AGR, GWR, REC1, REC2, WARM, WILD, RARE
- Hydrologic Unit: 801.21 AND 801.21
- Total Water Body Size: 18 and 19 miles
- Size Impaired: Unknown at this time
- Extent of Impairment: Unknown at this time
- Data Analyses:

  Orange County Water District Data:

  - Reach 3 – 0/6 exceeded the CTR for Inorganic Constituents Fresh Water Aquatic Life Protection 1-hr avg arsenic standard of 340 ug/L
  - Reach 3 – 0/6 exceeded the CTR for Inorganic Constituents Fresh Water Aquatic Life Protection 1-hr avg copper standard of 29-36 ug/L
  - Reach 3 – 0/1 exceeded the CTR for Inorganic Constituents Fresh Water Aquatic Life Protection (1/yr) lead standard of 190 ug/L
  - Reach 3 – 0/6 exceeded the CTR for Inorganic Constituents Fresh Water Aquatic Life Protection 1-hr avg nickel standard of 934-1100 ug/L
  - Reach 3 – 0/1 exceeded the CTR for Inorganic Constituents Fresh Water Aquatic Life Protection (1/yr) silver standard of 14 ug/L
  - Reach 3 - 0/1 exceeded the CTR for Inorganic Constituents Fresh Water Aquatic Life Protection (1/yr)" arsenic standard of 340 ug/L (1-hr avg)
  - Reach 3 - 0/1 exceeded the CTR for Inorganic Constituents Fresh Water Aquatic Life Protection (1/yr)" copper standard of 16 ug/L (1-hr avg)
  - Reach 3 - 0/1 exceeded the CTR for Inorganic Constituents Fresh Water Aquatic Life Protection (1/yr)" nickel standard of 559 ug/L (1-hr avg)
  - Reach 3 - 0/3 exceeded the CTR for Inorganic Constituents Fresh Water Aquatic Life Protection (1/yr)" arsenic standard of 340 ug/L (1-hr avg)

- Reach 3 - 0/3 exceeded the CTR for Inorganic Constituents Fresh Water Aquatic Life Protection (1/yr)" copper standard of 28-33 ug/L (1-hr avg)
- Reach 3 - 0/3 exceeded the CTR for Inorganic Constituents Fresh Water Aquatic Life Protection (1/yr)" nickel standard of 900-1100 ug/L (1-hr avg)
- Reach 3 - 0/1 exceeded the "CTR for Inorganic Constituents Fresh Water Aquatic Life Protection (1/yr)" selenium standard of 20 ug/L (1-hr avg)
- Reach 2 - 0/18 exceeded the "CTR for Inorganic Constituents Fresh Water Aquatic Life Protection" arsenic standard of 340 ug/L (1-hr avg)
- Reach 2 - 0/19 exceeded the "CTR for Inorganic Constituents Fresh Water Aquatic Life Protection" copper standard of 13-35 ug/L (1-hr avg)
- Reach 2 - 0/1 exceeded the "CTR for Inorganic Constituents Fresh Water Aquatic Life Protection (1/yr)" cyanide standard of 22 ug/L (1-hr avg)
- Reach 2 - 0/3 exceeded the "CTR for Inorganic Constituents Fresh Water Aquatic Life Protection (1/yr)" lead standard of 140-154 ug/L (1-hr avg)
- Reach 2 - 0/17 exceeded the "CTR for Inorganic Constituents Fresh Water Aquatic Life Protection" nickel standard of 161-274 ug/L (1-hr avg)
- Reach 2 - 0/1 exceeded the "CTR for Inorganic Constituents Fresh Water Aquatic Life Protection (1/yr)" selenium standard of 20 ug/L (1-hr avg)
- Reach 2 - 0/1 exceeded the "CTR for Inorganic Constituents Fresh Water Aquatic Life Protection (1/yr)" zinc standard of 226 ug/L (1-hr avg)
- Reach 3 – 0/4 (1/yr) exceeded the CTR for Inorganic Constituents Fresh Water Aquatic Life Protection 1-hr avg arsenic standard of 340 ug/L
- Reach 3 – 0/4 (1/yr) exceeded the CTR for Inorganic Constituents Fresh Water Aquatic Life Protection 1-hr avg copper standard of 29-36 ug/L
- Reach 3 – 0/1 (1/yr) exceeded the CTR for Inorganic Constituents Fresh Water Aquatic Life Protection 1-hr avg lead standard of 190 ug/L
- Reach 3 - 0/4 (1/yr) exceeded the CTR for Inorganic Constituents Fresh Water Aquatic Life Protection 1-hr avg nickel standard of 935-1100 ug/L

Regional Board Compliance Monitoring Data:

- Reach 3 - 1/18 data points exceed the Basin Plan TDS objective of 700 mg/L

- Reach 3 - 1/55 data points exceed the Basin Plan Total Nitrogen objective of 10 mg/L

San Bernardino Co. NPDES Stormwater Monitoring Program Data:

- Reach 3 – (wet weather) 6/8 exceed the Basin Plan COD objective of 30 mg/L
- Reach 3 – (dry weather) 0/2 exceed the Basin Plan COD objective of 30 mg/L
- Reach 3 – (wet weather) 0/8 exceed the Basin Plan TDS objective of 700 mg/L
- Reach 3 – (dry weather) 0/2 exceed the Basin Plan TDS objective of 700 mg/L
- Reach 3 – (wet weather) 0/8 exceed the Basin Plan Na objective of 110 mg/L
- Reach 3 – (dry weather) 0/2 exceed the Basin Plan Na objective of 110 mg/L
- Reach 3 – (wet weather) 0/8 exceed the Basin Plan SO4 objective of 150 mg/L
- Reach 3 – (dry weather) 0/2 exceed the Basin Plan SO4 objective of 150 mg/L
- Reach 3 – (wet weather) 0/8 exceed the Basin Plan Cl objective of 140 mg/L
- Reach 3 – (dry weather) 0/2 exceed the Basin Plan Cl objective of 140 mg/L
- Reach 3 – (wet weather) 0/8 exceed the Basin Plan TIN objective of 10 mg/L
- Reach 3 – (dry weather) 0/2 exceed the Basin Plan TIN objective of 10 mg/L
- Reach 3 – (wet weather) 0/8 exceed the Basin Plan hardness objective of .50 mg/L
- Reach 3 – (dry weather) 0/2 exceed the Basin Plan hardness objective of .50 mg/L
- Reach 3 – (wet weather) 0/8 exceed the Basin Plan boron objective of 0.75 mg/L
- Reach 3 – (dry weather) 0/2 exceed the Basin Plan boron objective of 0.75 mg/L

- Potential Sources: Unknown at this time

- Recommendation:

  - Delist for TDS and Total Nitrogen

  - More monitoring for other constituents due to not enough data points available per parameter to reach a conclusion for impairment and insufficient data to back up results.

- TMDL Priority: None at this time
- TMDL Start Date: Not applicable at this time
- TMDL End Date: Not applicable at this time

8. Santa Ana River, Reach 4:

- Beneficial Uses: GWR, REC1, REC2, WARM, WILD
- Hydrologic Unit: 801.27
- Total Water Body Size: 12 miles
- Size Impaired: Unknown at this time
- Extent of Impairment: Unknown at this time
- Data Analyses:
  Orange County Water District Data:
  - 0/1 exceeded the "CTR for Inorganic Constituents Fresh Water Aquatic Life Protection (1/yr)" arsenic standard of 340 ug/L (1-hr avg)
  - 0/1 exceeded the "CTR for Inorganic Constituents Fresh Water Aquatic Life Protection (1/yr)" copper standard of 26 ug/L (1-hr avg)
  - 0/1 exceeded the "CTR for Inorganic Constituents Fresh Water Aquatic Life Protection (1/yr)" nickel standard of 834 ug/L (1-hr avg)
- Potential Sources: Unknown at this time
- Recommendation: More monitoring due to not enough data points available per parameter to reach a conclusion for impairment and insufficient data to back up results.
- TMDL Priority: None at this time
- TMDL Start Date: Not applicable at this time

- TMDL End Date: Not applicable at this time

9. Santa Ana River, Reach 5:

- Beneficial Uses: MUN (applies upstream of Orange Ave (Redlands); downstream, water is exempted from MUN), AGR, GWR, REC1, REC2, WARM, WILD, RARE
- Hydrologic Unit: 801.52
- Total Water Body Size: 17 miles
- Size Impaired: Unknown at this time
- Extent of Impairment: Unknown at this time
- Data Analyses:

  Orange County Water District Data:

  - 0/3 exceeded the "CTR for Inorganic Constituents Fresh Water Aquatic Life Protection (1/yr)" copper standard of 13-28 ug/L (1-hr avg)
  - 0/1 exceeded the "CTR for Inorganic Constituents Fresh Water Aquatic Life Protection (1/yr)" lead standard of 130 ug/L (1-hr avg)
  - 0/1 exceeded the "CTR for Inorganic Constituents Fresh Water Aquatic Life Protection (1/yr)" nickel standard of 810 ug/L (1-hr avg)
  - Reach 5 – (wet weather) 2/13 exceed the Basin Plan COD objective of 25 mg/L
  - Reach 5 – (dry weather) 0/2 exceed the Basin Plan COD objective of 25 mg/L
  - Reach 5 – (wet weather) 13/13 exceed the Basin Plan TDS objective of 30 mg/L
  - Reach 5 – (dry weather) 2/2 exceed the Basin Plan TDS objective of 30 mg/L
  - Reach 5 – (wet weather) 0/13 exceed the Basin Plan Na objective of 30 mg/L
  - Reach 5 – (dry weather) 1/2 exceed the Basin Plan Na objective of 30 mg/L
  - Reach 5 – (wet weather) 0/13 exceed the Basin Plan SO4 objective of 60 mg/L
  - Reach 5 – (dry weather) 1/2 exceed the Basin Plan SO4 objective of 60 mg/L
  - Reach 5 – (wet weather) 0/13 exceed the Basin Plan Cl objective of 20 mg/L

- Reach 5 – (dry weather) 0/2 exceed the Basin Plan Cl objective of 20 mg/L
- Reach 5 – (wet weather) 1/13 exceed the Basin Plan TIN objective of 5 mg/L
- Reach 5 – (dry weather) 0/2 exceed the Basin Plan TIN objective of 5 mg/L
- Reach 5 – (wet weather) 2/13 exceed the Basin Plan hardness objective of 190 mg/L
- Reach 5 – (dry weather) 0/2 exceed the Basin Plan hardness objective of 190 mg/L

- Potential Sources: Unknown at this time
- Recommendation: More monitoring due to not enough data points available per parameter to reach a conclusion for impairment and insufficient data to back up results.
- TMDL Priority: None at this time
- TMDL Start Date: Not applicable at this time
- TMDL End Date: Not applicable at this time

10. Temescal Creek:

- Beneficial Uses: AGR, IND, GWR, REC1, REC2, WARM, WILD, RARE, SPWN, LWRM
- Hydrologic Unit: 801.25
- Total Water Body Size:
- Size Impaired: Unknown at this time
- Extent of Impairment: Unknown at this time
- Data Analyses:

Orange County Water District Data

- 0/1 exceeded the CTR "max. conc. 1-hr avg" arsenic standard of 150 ug/L (based on hardness = 285 mg/L)
- 0/1 exceeded the CTR "max. conc. 1-hr avg" cadmium standard of 13 ug/L (based on hardness = 285 mg/L)
- 0/1 exceeded the CTR "max. conc. 1-hr avg" copper standard of 36 ug/L (based on hardness = 285 mg/L)
- 0/1 exceeded the CTR "max. conc. 1-hr avg" lead standard of 190 ug/L (based on hardness = 285 mg/L)
- 0/1 exceeded the CTR "max. conc. 1-hr avg" nickel standard of 1100 ug/L (based on hardness = 285 mg/L)
- 0/1 exceeded the CTR "max. conc. 1-hr avg" zinc standard of 280 ug/L (based on hardness = 285 mg/L)
- Reach 1A – 0/1 exceeded the "Cal Toxics Rule Max Conc 1 hr Avg" cadmium standard of 8.5 ug/L (Based on hardness = 194)
- Reach 1A – 0/1 exceeded the "Cal Toxics Rule Max Conc 1 hr Avg" cadmium standard of 13 ug/L (Based on hardness = 284)
- Reach 1A – 0/1 exceeded the "Cal Toxics Rule Max Conc 1 hr Avg" cadmium standard of 11 ug/L (Based on hardness = 238)
- Reach 1A – 0/1 exceeded the "Cal Toxics Rule Max Conc 1 hr Avg" copper standard of 25 ug/L (Based on hardness = 194)
- Reach 1A – 0/1 exceeded the "Cal Toxics Rule Max Conc 1 hr Avg" copper standard of 36 ug/L (Based on hardness = 284)
- Reach 1A – 0/1 exceeded the "Cal Toxics Rule Max Conc 1 hr Avg" copper standard of 31 ug/L (Based on hardness = 238)
- Reach 1A – 0/1 exceeded the "Cal Toxics Rule Max Conc 1 hr Avg" nickel standard of 810 ug/L (Based on hardness = 194)
- Reach 1A – 0/1 exceeded the "Cal Toxics Rule Max Conc 1 hr Avg" nickel standard of 1100 ug/L (Based on hardness = 284)
- Reach 1A – 0/1 exceeded the "Cal Toxics Rule Max Conc 1 hr Avg" nickel standard of 980 ug/L (Based on hardness = 238)
- Reach 1A – 0/1 exceeded the "Cal Toxics Rule Max Conc 1 hr Avg" lead standard of 130 ug/L (Based on hardness = 194)
- Reach 1A – 0/1 exceeded the "Cal Toxics Rule Max Conc 1 hr Avg" lead standard of 190 ug/L (Based on hardness = 284)
- Reach 1A – 0/1 exceeded the "Cal Toxics Rule Max Conc 1 hr Avg" lead standard of 170 ug/L (Based on hardness = 238)
- Reach 1A – 0/1 exceeded the "Cal Toxics Rule Max Conc 1 hr Avg" selenium standard of 20 ug/L (Based on hardness = 194)
- Reach 1A – 0/1 exceeded the "Cal Toxics Rule Max Conc 1 hr Avg" selenium standard of 20 ug/L (Based on hardness = 284)
- Reach 1A – 0/1 exceeded the "Cal Toxics Rule Max Conc 1 hr Avg" selenium standard of 20 ug/L (Based on hardness = 238)
- Reach 1A – 0/1 exceeded the "Cal Toxics Rule Max Conc 1 hr Avg" zinc standard of 200 ug/L (Based on hardness = 194)

- Reach 1A – 0/1 exceeded the "Cal Toxics Rule Max Conc 1 hr Avg" zinc standard of 280 ug/L (Based on hardness = 284)
- Reach 1A – 0/1 exceeded the "Cal Toxics Rule Max Conc 1 hr Avg" zinc standard of 250 ug/L (Based on hardness = 238)

- Potential Sources: Unknown at this time
- Recommendation: More monitoring due to not enough data points available per parameter to reach a conclusion for impairment and insufficient data to back up results.
- TMDL Priority: None at this time
- TMDL Start Date: Not applicable at this time
- TMDL End Date: Not applicable at this time

Mountain Area Water Bodies

1. Big Bear Lake:

- Beneficial Uses: MUN, AGR, GWR, REC1, REC2, WARM, COLD, WILD, RARE
- Hydrologic Unit: 801.71
- Total Water Body Size: 2970 acres
- Size Impaired: Unknown at this time
- Extent of Impairment: Unknown at this time
- Data Analyses:
  Big Bear Municipal Water District Data:

- Station 1 – 0/8 exceeded the Basin Plan Objective total phosphorus standard of 0.15 mg/L
- Station 2 – 1/5 exceeded the Basin Plan Objective total phosphorus standard of 0.15 mg/L
- Station 3 – 0/5 exceeded the Basin Plan Objective total phosphorus standard of 0.15 mg/L
- Station 4 – 0/5 exceeded the Basin Plan Objective total phosphorus standard of 0.15 mg/L
- Station 5 – 0/8 exceeded the Basin Plan Objective total phosphorus standard of 0.15 mg/L
- Station 1 – 8/8 exceeded the Basin Plan Objective total nitrogen standard of 0.15 mg/L
- Station 2 – 5/5 exceeded the Basin Plan Objective total nitrogen standard of 0.15 mg/L
- Station 3 – 5/5 exceeded the Basin Plan Objective total nitrogen standard of 0.15 mg/L
- Station 4 – 5/5 exceeded the Basin Plan Objective total nitrogen standard of 0.15 mg/L
- Station 5 – 8/8 exceeded the Basin Plan Objective total nitrogen standard of 0.15 mg/L

- Recommendation: None, TMDL development in progress
- Potential Sources: Unknown at this time
- TMDL Priority: High
- TMDL Start Date: 2002
- TMDL End Date: 2005

2. Boulder Creek:

- Beneficial Uses: MUN, GWR, REC1, REC2, COLD, WILD, SPWN
- Hydrologic Unit: 801.71
- Total Water Body Size: 2 miles
- Size Impaired: Unknown at this time
- Extent of Impairment: Unknown at this time
- Data Analyses:
  Big Bear Municipal Water District Data:

- 4/4 exceeded the Basin Plan TIN objective (for Big Bear Lake) of 0.15 mg/l
- 0/4 exceeded the Basin Plan Objective total phosphorus (for Big Bear Lake) of 0.15 mg/L
- 4/4 exceeded the Basin Plan TIN Objective (for Big Bear Lake) of 0.15 mg/L

- Potential Sources: Unknown at this time
- Recommendation: To be addressed by TMDL for Big Bear Lake that is already underway.
- TMDL Priority: Not applicable
- TMDL Start Date: Not applicable
- TMDL End Date: Not applicable

3. Grout Creek:

- Beneficial Uses: MUN, GWR, REC1, REC2, COLD, WILD, SPWN
- Hydrologic Unit: 801.71
- Total Water Body Size: 2 miles
- Size Impaired: Unknown at this time
- Extent of Impairment: Unknown at this time
- Data Analyses:
  Big Bear Municipal Water District Data:

- 1/2 samples exceeded the Basin Plan TIN objective (for Big Bear Lake) of 0.15 mg/l
- 0/2 exceeded the Basin Plan total phosphorus objective (for Big Bear Lake) of 0.15 mg/L
- 1/2 exceeded the Basin Plan TIN objective (for Big Bear Lake) of 0.15 mg/L

- Potential Sources: Unknown at this time
- Recommendation: already on 303(d) list as impaired for nutrients; TMDL development underway
- TMDL Priority: high
- TMDL Start Date: 2002
- TMDL End Date: 2005

4. Knickerbocker Creek:

- Beneficial Uses: MUN, GWR, REC1, REC2, COLD, WILD (all are intermittent beneficial uses)
- Hydrologic Unit: 801.71
- Total Water Body Size: 2 miles
- Size Impaired: Unknown at this time
- Extent of Impairment: Unknown at this time
- Data Analyses:

Big Bear Municipal Water District Data:

- 4/4 samples in one location exceeded Basin Plan TIN objective (for Big Bear Lake) of 0.15 mg/l
- 1/4 exceeded the Basin Plan total phosphorus objective (for Big Bear Lake) of 0.15 mg/L
- 4/4 exceeded the Basin Plan objective (for Big Bear Lake) of total nitrogen standard of 0.15 mg/L

- Potential Sources: Unknown at this time.
- Recommendation: To be addressed by TMDL for Big Bear Lake that is already underway.
- TMDL Priority: Not applicable
- TMDL Start Date: Not applicable
- TMDL End Date: Not applicable

5. Metcalf Creek:

- Beneficial Uses: MUN, GWR, REC1, REC2, COLD, WILD, SPWN
- Hydrologic Unit: 801.71
- Total Water Body Size: 2 miles
- Size Impaired: Unknown at this time
- Extent of Impairment: Unknown at this time
- Data Analyses:

  Big Bear Municipal Water District Data:

- 4/4 exceeded the Basin Plan TIN objective (for Big Bear Lake) of 0.15 mg/l
- 0/4 exceeded the Basin Plan total phosphorus objective (for Big Bear Lake) of 0.15 mg/L
- 4/4 exceeded the Basin Plan TIN objective (for Big Bear Lake) of 0.15 mg/l

- Potential Sources: Unknown at this time
- Recommendation: To be addressed by the Big Bear Lake TMDL already underway.
- TMDL Priority: Not applicable
- TMDL Start Date: Not applicable
- TMDL End Date: Not applicable

6. Rathbun Creek:

- Beneficial Uses: MUN, GWR, REC1, REC2, COLD, WILD
- Hydrologic Unit: 801.71
- Total Water Body Size: 2 miles
- Size Impaired: Unknown at this time
- Extent of Impairment: Unknown at this time
- Data Analyses:
  Big Bear Municipal Water District Data:

- 0/5 exceeded the Basin Plan TIN objective (for Big Bear Lake) of 0.15 mg/L
- 2/2 exceeded the Basin Plan TIN objective (for Big Bear Lake) of 0.15 mg/L
- 0/2 exceeded the Basin Plan total phosphorus objective of 0.15 mg/L
- 2/2 exceeded the Basin Plan TIN objective (for Big Bear Lake) of 0.15 mg/L

- Recommendation: already on 303(d) list as impaired for nutrients; TMDL development underway
- TMDL Priority: high
- TMDL Start Date: 2002
- TMDL End Date: 2005

7. San Jacinto River North Fork (Reach 7):

- Beneficial Uses: MUN, AGR, GWR, REC1, REC2, COLD, WILD
- Hydrologic Unit: 802.21
- Total Water Body Size:
- Size Impaired: Unknown at this time
- Extent of Impairment: Unknown at this time
- Data Analyses:

Lake Hemet Municipal Water District Data:

- 1/4 samples in one location exceeded the aluminum primary MCL (1000 ug/L) and secondary MCL (200 ug/L) for drinking water.
- 0/4 exceeded the antimony primary MCL (6 ug/L) and no secondary MCL for drinking water
- 0/4 exceeded the arsenic primary MCL (50 ug/L) for drinking water
- 0/4 exceeded the barium primary MCL (1000 ug/L) for drinking water
- 0/4 exceeded the beryllium primary MCL (4 ug/L) for drinking water
- 0/4 exceeded the cadmium primary MCL (5 ug/L) for drinking water
- 0/4 exceeded the iron secondary MCL (300 ug/L) for drinking water
- 0/4 exceeded the Basin Plan Objective total hardness objective of 100 mg/L
- 3/4 exceeded the Basin Plan Objective sodium objective of 10 mg/L
- 0/4 exceeded the Basin Plan Objective sulfate objective of 20 mg/L
- 0/4 exceeded the Basin Plan Objective chloride objective of 15 mg/L
- 0/4 exceeded the Basin Plan Objective TDS objective of 150 mg/L

San Jacinto River South Fork (Reach 7):

Lake Hemet Water District Data:

- Reach 7 – 0/4 exceeded the primary (1000 ug/L) and secondary (200 ug/L) MCL DHS drinking water standards
- Reach 7 – 2/4 exceeded the Basin Plan Objective total hardness objective of 100 mg/L
- Reach 7 – 4/4 exceeded the Basin Plan Objective sodium objective of 10 mg/L
- Reach 7 – 0/4 exceeded the Basin Plan Objective sulfate objective of 20 mg/L
- Reach 7 – 3/4 exceeded the Basin Plan Objective chloride objective of 15 mg/L
- Reach 7 – 4/4 exceeded the Basin Plan Objective TDS objective of 150 mg/L

- Potential Sources: Unknown at this time
- Recommendation: More monitoring due to insufficient data points
- TMDL Priority: None at this time
- TMDL Start Date: Not applicable at this time

- TMDL End Date: Not applicable at this time

8. Strawberry Creek:

- Beneficial Uses: MUN, AGR, GWR, REC1, REC2, COLD, WILD
- Hydrologic Unit: 802.21
- Total Water Body Size: 9 miles
- Size Impaired: Unknown at this time
- Extent of Impairment: Unknown at this time
- Data Analyses:
  Lake Hemet Water District Data:

- 0/4 exceeded the Basin Plan Objective total hardness objective of 100 mg/L
- 4/4 exceeded the Basin Plan Objective sodium objective of 10 mg/L
- 0/4 exceeded the Basin Plan Objective sulfate objective of 20 mg/L
- 3/4 exceeded the Basin Plan Objective chloride objective of 15 mg/L
- 3/4 exceeded the Basin Plan Objective TDS objective of 150 mg/L

- Potential Sources: Unknown at this time
- Recommendation: More monitoring due to not enough data points available per parameter to reach a conclusion for impairment and insufficient data to back up results.
- TMDL Priority: None at this time
- TMDL Start Date: Not applicable at this time
- TMDL End Date: Not applicable at this time

PRELIMINARY DRAFT

California Regional Water Quality Control Board
Santa Ana Region

October 26, 2001

Item: 9

Subject: Update of the Clean Water Act Section 303(d) List of Impaired Waterbodies

INTRODUCTION

Section 303(d) of the Clean Water Act requires states to update the list of surface waterbodies for which water quality standards are not attained, or are not expected to be attained with the implementation of technology-based controls. These waterbodies are considered "impaired". The resulting 303(d) list of impaired waterbodies includes a description of the pollutants causing impairment and a schedule for developing a Total Maximum Daily Load (TMDL) for each pollutant. The TMDL is the maximum load of a pollutant that can be discharged and still ensure the attainment of applicable water quality standards. Placing a waterbody on the Section 303(d) list of impaired waterbodies requires the development of a TMDL(s) to address the source(s) of impairment. Federal TMDL regulations require states to update the Section 303(d) list of impaired waterbodies and submit the list to US Environmental Protection Agency (USEPA). The Santa Ana Regional Water Quality Control Board, on behalf of the State Water Resources Control Board (State Board), has compiled recommended changes to the 303(d) list. The State Board will review recommendations from all the Regional Boards, hold a public hearing to consider public comments, and adopt a statewide 303(d) list for submittal to the USEPA by April 2002.

The Santa Ana Region last reviewed and updated the 303(d) list in 1998. The proposed revised 303(d) list is shown in Attachment A.

WATERBODIES ASSESSED

To update the 303(d) list, staff solicited information from the public on the water quality condition of waterbodies within the Region and reviewed additional data from recent investigations. The waterbodies assessed thereby included coastal beaches, as well as coastal and inland rivers and streams. These waterbodies are shown in Table 1. The data obtained from the public and additional data reviewed are summarized in Worksheets prepared for each waterbody assessed. These waterbody Worksheets are contained in Attachment B.

Table 1
2001/2002 List of Waterbodies Assessed

Coastal Waterbodies
- Seal Beach
- Anaheim Bay
- Huntington Harbour
- Newport Bay
- San Diego Creek, Reach 1
- San Diego Creek, Reach 2
- Pelican Point Creek
- Los Trancos Creek (Crystal Cove Cr.)
- Muddy Canyon Creek
- Near-shore ocean waters
  - Crystal Cove Beaches
  - Huntington State/ City Beaches
  - Bolsa Chica State Beach
  - Corona State Beach
  - Newport Beaches
- Off-shore ocean waters

Inland Valley Waterbodies
- San Timoteo Creek
- Cucamonga Creek
- Chino Creek
- Mill Creek (Prado Area)
- Santa Ana River, Reaches 2 & 3
- Temescal Creek
- Canyon Lake

Mountain Area Waterbodies
- Big Bear Lake
- Metcalf Creek
- Boulder Creek
- Knickerbocker Creek
- Grout Creek
- San Jacinto River, Reaches 6 & 7
- Strawberry Creek

PROPOSED SECTION 303(d) LIST CHANGES

Listing/Delisting Strategy

State Board guidance to the Regional Boards on listing and delisting pursuant to Section 303(d) has changed over time. In 1998, the Santa Ana Regional Board staff participated on an interagency task force to develop new listing/delisting criteria for use by the State Board and Regional Boards. These criteria generally require more concrete, quantitative information for listing than past criteria (i.e., listing on the basis of "best professional judgment" or "estimated assessments"). The task force discussed but did not reach consensus on the number of samples, or the number of violations of standards, required in order to list a specific waterbody. In general, water bodies may be delisted from the 303(d) list if data demonstrate that the waterbody is not impaired, if there is a TMDL in place, or if there are specific and planned measures to be undertaken that will address the impairment (*e.g*, a Cleanup and Abatement Order). Specific delisting criteria were included as part of the 1998 Listing Guidance. The State Board has been making plans to revise the 1998 Guidance; however, no updated guidelines are available for use in this update of the 303(d) list.

Given the lack of specific State guidance on revising the 303(d) list, Board staff generally utilized an approach that consisted of evaluating available data and determining if the data were adequate to support a listing decision. Data types evaluated included numeric water column and/or sediment chemistry data, bioassessment data (*e.g.*, benthic infaunal richness and abundance), water column and/or sediment toxicity data. In addition to the numeric data, staff also reviewed other types of information that provide an indication of the status of a waterbody. Examples include a history of algal blooms and/or fish kills, and beach posting information. For this assessment, the majority of the data available were numeric water column chemistry data, numerical data from fish or mussel bioaccumulation studies, and information about beach or river reach closure or postings due to bacterial contamination. Numeric data were compared to an appropriate numeric standard for that waterbody; other information was evaluated to determine if there was clear information demonstrating impairment of a beneficial use. In many cases, the data that were submitted or available were insufficient, or

not conclusive as to whether an impairment exists. In this case, staff recommends implementing a prioritized monitoring program for those waterbodies.

In evaluating waterbodies, staff determined the water quality indicator (parameter or beneficial use) to be evaluated and the minimum required sample size per parameter (*e.g.*, comparison of the bacteriological data to the Basin Plan objective for the protection of swimming requires a minimum of 5 samples for fecal coliform to be taken during a 30-day period). Staff also determined the number of sampling locations for each waterbody and the number of times each location was sampled. Staff believes that, because of the implications of placing a waterbody on the 303(d) list, identifying a waterbody as impaired should not be based on a limited amount of data. Therefore, staff's approach was to define the minimum sample size requirement that would allow an assessment to be completed for a waterbody (including all locations) as 10 data points during the 1997-2001 time period (this requirement was based on USEPA 305(b) guidance, 1998). There was no standard "frequency of exceedance" that staff utilized to make a determination that a waterbody is impaired. For the most part, staff relied on a weight of evidence approach on a waterbody by waterbody basis that took into consideration the number of exceedances of the applicable objectives, the beneficial uses threatened or impaired, the magnitude of the exceedances from the numerical objective, knowledge of the land use history (as it affects water quality) and the quality of the data reviewed. Where the data were adequate to make a determination, staff also attempted to identify seasonal impairment, *e.g.*, whether the impairment occurs primarily during the rainy season. This will help to focus any subsequent TMDL development efforts.

Beach posting data, the only narrative information reviewed, were assessed in a different manner. Staff reviewed this information to determine the number of times a beach was posted by the Orange County Health Care Agency due to bacterial contamination. The Health Care Agency monitors bacterial quality of the beaches pursuant to the California Heath and Safety Code, Section 115880 (AB 411 requirements), and posts ocean waters when the bacteriological standards established by the Department of Health Services in the California Code of Regulations (Title 17, Section 7958) are exceeded. The Health Care Agency is required to apply these standards to determine whether it is necessary to restrict the use of public beaches (or portions thereof). Staff believes that posting of the ocean waters indicates at least the threat of impairment to recreation beneficial uses. If a beach was posted for more than one week (seven consecutive days) per year during the assessment period (1997-2001) for reasons other than a spill or illegal dumping, then the beach was included on the proposed list of impaired water bodies. Staff recognized that at times, beaches may have been posted for several days, then reopened for several days and then posted again, etc. Staff determined that this sporadic posting of a beach did not demonstrate a consistent exceedance, and thus the beach is not proposed to be included on the 303(d) list of impaired waterbodies. In addition to the beach posting information, staff also evaluated available bacteriological data for comparison with the California Ocean Plan bacteriological objectives. In most cases, however, the data were collected in a manner that is inconsistent with the Ocean Plan objectives. Therefore, staff only used the bacteriological data to support the beach posting information. Finally, staff also reviewed the environmental group Heal the Bay's Beach Report Card information to support 303(d) listing recommendations. Heal the Bay evaluated the bacteriological data from the Orange County Health Care Agency's monitoring program in comparison to the AB 411 bacteriological thresholds and the Santa Monica Bay Restoration Project's epidemiological study on swimmers at urban-runoff influenced beaches. The grading system of the Report Card takes into consideration the magnitude and frequency of exceedances of the thresholds during both the wet and dry season. Staff used the Report Card to confirm the beach posting information *i.e.*, beaches which have threatened or impacted recreation uses due to bacterial contamination.

As part of the toxic parameter TMDL development process for Newport Bay and its watershed, Regional Board staff reviewed available data and prepared a problem statement (December 2000). The intent was to identify the specific toxic pollutants for which TMDLs are required. (The 303(d) listing for Newport was too general,

broadly identifying metals, pesticides, etc., as the causes of impairment.) The specific pollutants identified included selenium, diazinon and chlorpyrifos. Board staff is developing TMDLs for those constituents now. The USEPA is also in the process of reviewing additional data sets as well as new data not available to Board staff at the time of the problem statement development. A final list of toxic substances requiring TMDLs has not yet been formulated. Once the list is finalized, USEPA will assure that TMDLs are developed for all the listed pollutants and will promulgate all the toxic substance TMDLs, including those for selenium, diazinon and chlorpyrifos, by April 15, 2002. Once the TMDLs are promulgated, the 303(d) list can be modified appropriately, i.e., Newport Bay and its watershed can be removed from the 303(d) list of impaired waters. This revision will be addressed in a future update of the 303(d) list.

To recommend delisting a waterbody from the 303(d) list, staff relied on the 1998 Listing/Delisting Guidance criteria that state that waterbodies may be removed from the 303(d) list if data (10 sample minimum) demonstrate that objectives are being met or if a TMDL has been developed and approved by USEPA.

Table 2 contains the list of waterbodies proposed to be delisted from the 303(d) list with a brief summary of the justification.

Table 3 contains the list of waterbodies proposed to be added to the 303(d) list with a brief summary of the justification.

For each proposed delisted and/or listed waterbody, staff has prepared Waterbody Worksheets that provide the data source, a summary of the data evaluated and justification for the proposed listing/delisting. The Worksheets are included in Attachment B .

Proposed TMDL Priorities

Pursuant to federal regulations (40 CFR 130.7), the Regional Board is required to provide priority rankings for the development of TMDLs for the Region's 303(d) listed waterbodies. To develop TMDL priorities, Board staff considered the 1998 Listing/Delisting Guidance, USEPA's "directive" to complete all TMDLs within the next 13 years (note that there is no specific time frame specified in either the statute or regulation), and the following criteria.

"High" priority waterbodies are targeted for TMDL development in the next 2 to 5 years. Waters are identified as "High" priority for TMDL development when one or more of the following criteria are met:

- there is current involvement in watershed planning activities affecting the waterbody, pursuant to the Watershed Management Initiative adopted by the Regional Board in March, 2001;
- TMDL development activities are currently underway;
- there is litigation that is driving the TMDL development process;
- the waterbody is of significant concern because of its regionally important beneficial uses, including municipal drinking water supply (MUN), habitat for rare or endangered species (RARE) or body contact recreation (REC1), one or more of which may be affected by the pollutant(s) of concern;
- there is a high degree of public concern;
- there is a high potential for beneficial use recovery upon implementation of the TMDL; and
- there is a high potential for state or federal funding or stakeholder funding to support TMDL development.

"Medium" priority waterbodies are targeted for TMDL development in the next 5 to 10 years. Waters are identified as "Medium" priority for TMDL development when one or more of the following criteria are met:

- Board staff is planning to conduct watershed planning activities involving the waterbody in the next 3 to 4 years, pursuant to the Watershed Management Initiative adopted by the Regional Board in March, 2001;
- there is a moderate potential for beneficial use recovery;
- there is a moderate degree of public concern; and
- there is a moderate potential for state or federal funding or stakeholder funding to support TMDL development in the future.

"Low" priority waterbodies are targeted for TMDL development in the next 9-11 years. Data collection efforts to be undertaken in these waterbodies and watersheds may ultimately result in the delisting of many of these waterbodies from the 303(d) list. Therefore, until a more thorough monitoring and assessment program is conducted, staff does not believe effort should be spent developing TMDLs for the "Low" priority waterbodies. Waterbodies are considered to be "Low" priority for TMDL planning because of the following:

- Board staff is not planning to conduct watershed planning activities affecting the waterbody until 7 to 10 years in the future, pursuant to the Watershed Management Initiative adopted by the Regional Board in March, 2001;
- there is minimal public concern;
- there is a low potential for beneficial use recovery upon implementation of the TMDL (the cost of developing TMDL would likely be greater than the expected benefit); and
- there is minimal potential for state or federal funding or stakeholder funding to support TMDL development.

TMDL priorities and schedules for new waterbodies proposed for inclusion on the 303(d) list are shown on Table 3. TMDL priorities and schedules for waterbodies already on the 303(d) list are shown on the proposed 303(d) list in Attachment A.

Priority Monitoring Strategy

In several cases, the data available for review were insufficient, or not conclusive as to whether impairment exists. In these cases, staff recommends implementing a prioritized monitoring program for those waterbodies and the parameters of concern. Two priority lists are proposed. Priority 1 waterbodies are those where the data assessed do not exceed a standard, but are close enough to the standard to be of concern, or where the data assessed occasionally exceed a standard, but there are not enough data points to indicate consistent exceedances. For Priority 1 waterbodies, additional data or information are needed to confirm an impaired water status. Focused monitoring for these waterbodies will take place sooner than for other waterbodies.

Priority 2 waterbodies are those waterbodies where the data assessed do not exceed a standard and are not of concern at this time, or for which less than five data points exist and therefore there are not enough data available to conclude there is impairment or a threat of impairment. Monitoring for these waterbodies and parameters would likely be carried out as part of other agency monitoring programs. Board staff would utilize these data and information to make a determination on the waterbody status in a subsequent 303(d) list update.

Tables 4a and 4b contain the list of Priority 1 and Priority 2 waterbodies, the respective parameters of concern and the proposed monitoring schedule.

Table 2

Waterbodies Proposed to be Delisted from Section 303(d) List of Impaired Waters

Waterbody	Pollutant	Justification
San Diego Creek, Reach 1	Nutrients[1]	TMDL incorporated into the Basin Plan; TMDL approved by USEPA
	Siltation[2]	TMDL incorporated into the Basin Plan; TMDL approved by USEPA
San Diego Creek, Reach 2	Nutrients[1]	TMDL incorporated into the Basin Plan; TMDL approved by USEPA
	Siltation[2]	TMDL incorporated into the Basin Plan; TMDL approved by USEPA
Upper Newport Bay	Nutrients[1]	TMDL incorporated into the Basin Plan; TMDL approved by USEPA
	Siltation[2]	TMDL incorporated into the Basin Plan; TMDL approved by USEPA
	Fecal coliform[3]	TMDL incorporated into the Basin Plan; TMDL approved by USEPA
Lower Newport Bay	Nutrients[1]	TMDL incorporated into the Basin Plan; TMDL approved by USEPA
	Siltation[2]	TMDL incorporated into the Basin Plan; TMDL approved by USEPA
	Fecal coliform[3]	TMDL incorporated into the Basin Plan; TMDL approved by USEPA
Santa Ana River, Reach 3	Total Dissolved Solids[4]	Data demonstrate objective being met
	Nitrogen[5]	TMDL incorporated into the Basin Plan; TMDL approved by USEPA Data demonstrate objective being met

[1] Resolution No. 98-100
[2] Resolution No. 98-101
[3] Resolution No. 99-10
[4] See Attachment B for Worksheet
[5] Resolution No. 91-125

Table 3
Waterbodies Proposed to be Added to the Section 303(d) List of Impaired Waters

Waterbody	Pollutant	TMDL Priority	TMDL Development	
			Start Date	End Date
San Diego Creek, Reach 1	Fecal coliform	Medium	2010	2015
Pelican Point Creek	Total/Fecal Coliform	Medium	2009	2011
Buck Gully Creek	Total/ Fecal coliform	Medium	2008	2011
Los Trancos Creek (Crystal Cove Cr.)	Total /Fecal coliform	Medium	2008	2011
Muddy Creek	Total/ Fecal coliform	Medium	2008	2011
Seal Beach 1st Street to Main Street Pier	Bacteria (wet season)*	High	2007	2011
Seal Beach Breakwater	Bacteria (wet season) *	High	2007	2011
Huntington Beach – Dog Beach	Bacteria (wet season) *	High	2007	2011
Huntington State Beach – from Newland Avenue to Santa Ana River	Bacteria (wet and dry seasons) *	High	2005	2009
Newport Beach 19th Street to 43 rd Street Beach	Bacteria (wet and dry seasons) *	High	2005	2009
Newport Beach 1000 feet down coast of Santa Ana River	Bacteria (wet season) *	High	2007	2011
Little Corona Beach	Bacteria (wet season) *	High	2007	2011
Canyon Lake – East Bay	Sediment	medium	2008	2011

*** Orange County Health Care Agency bases beach postings on the following bacterial indicators: total coliform, fecal coliform and enterococcus. Wet season extends from October to April.**

Table 4a

Monitoring Priority 1 Water Bodies

Waterbody	Parameter of Concern	Monitoring Schedule (year) [1]
Ocean Waters	Dieldrin, mercury, p,pDDE (fish tissue)	2004
Seal Beach	Mercury, p,pDDE(fish tissue)	2004
Huntington Beach State Park	Mercury, p,pDDE (fish tissue)	2004
Anaheim Bay	Mercury, p,pDDE, nickel, copper, dieldrin, PCB	2001[2]
Huntington Harbour	Copper, Nickel, dieldrin, toxaphene	2001[2]
Bolsa Chica	Copper, Nickel	2004
San Jacinto River, Reaches 6 and 7	Hardness, TDS, Chloride, aluminum , sodium	2004
Strawberry Creek	General mineral constituents	2004
Big Bear Lake	Inorganic nitrogen, phosphorus	2002[3]
Knickerbocker Creek	Inorganic nitrogen	2002[3]
Metcalf Creek	Inorganic nitrogen	2002[3]
Boulder Creek	Inorganic nitrogen	2002[3]
Knickerbocker Creek	Inorganic nitrogen	2002[3]

Table 4b

Monitoring Priority 2 Water bodies

Waterbody	Parameter of Concern	Monitoring Schedule (year) [1]
Anaheim Bay	Zinc, Nickel, Lead, Chromium, Cadmium	2001[2]
San Timoteo Creek	General water quality parameters	2006
Temescal Creek	Metals	2007
Cucamonga Creek	Metals	2006
Chino Creek Reach 1	Metals	2006
Mill Creek (Prado area)	Metals	2006
Santa Ana River Reaches 3, 4 and 5	Metals	2006

1 monitoring schedule is contingent upon funding availability
2 these waterbodies will be assessed as part of the current Anaheim Bay/Huntington Harbour Water Quality Assessment study
3 these waterbodies will be assessed as part of the current studies being conducted to develop TMDLs for the Big Bear Lake watershed.

STAFF RECOMMENDATION

Direct staff to transmit this report, comments received and all other relevant materials to the State Water Resources Control in support of the Statewide Section 303(d) list adoption.

ATTACHMENTS

Attachment A: Santa Ana Region 2001/2002 Section 303(d) List

Attachment B: Data Analyses, Summary and Waterbody Worksheets

Attachment A - Proposed 2002 303(d) List of Impaired Waterbodies for the Santa Ana Region

Attachment B – Data Analyses Summary and Waterbody Worksheets

List of Abbreviations/Acronyms

Ag	Silver
Hg	Mercury
Cu	Copper
Ni	Nickel
Cd	Cadmium
Cr	Chromium
TDS	Total dissolved solids
TIN	Total inorganic nitrogen
TN	Total nitrogen
Zn	Zinc
MCL	Maximum contaminant level
MTRL	Maximum Tissue Residence Level
DHS	CA Department of Health Services
NAS	National Academy of Science
FDA	Food and Drug Administration
EBE	Enclosed Bays and Estuaries (Cal Toxics Rule)
CTR	California Toxics Rule
REC1	Water contact recreation beneficial use
REC2	Non-water contact recreation beneficial use
MUN	Municipal drinking water supply beneficial use
IND	Industrial service supply beneficial use
PROC	Industrial process supply beneficial use
GWR	Groundwater recharge
COMM	Commercial and sport fishing beneficial use
NAV	Navigation beneficial use
BIOL	Biological habitat beneficial use
RARE	Habitat for rare or endangered species (beneficial use)
WILD	Wildlife habitat beneficial use
EST	Estuarine habitat beneficial use
SPWN	Spawning, reproduction, development habitat beneficial use
SHEL	Shellfish harvesting beneficial use
MAR	Marine aquatic habitat beneficial use
WARM	Warm water aquatic habitat beneficial use
LWRM	Limited warm water aquatic habitat beneficial use
COLD	Cold water aquatic habitat beneficial use

California Regional Water Quality Control Board
Santa Ana Region

December 19, 2001

ITEM: 7

SUBJECT: Staff Report on the Update of the Clean Water Act Section 303(d) List of Impaired Waterbodies within the Santa Ana Region

DISCUSSION

Section 303(d) of the Clean Water Act requires states to update the list of surface waterbodies for which water quality standards are not attained, or are not expected to be attained with the implementation of technology-based controls. These waterbodies are considered "impaired". The resulting 303(d) list of impaired waterbodies includes a description of the pollutants causing impairment and a schedule for developing a Total Maximum Daily Load (TMDL) for each pollutant. The TMDL is the maximum load of a pollutant that can be discharged and still ensure the attainment of applicable water quality standards. Placing a waterbody on the Section 303(d) list of impaired waterbodies requires the development of a TMDL(s) to address the source(s) of impairment. Federal TMDL regulations require states to update the Section 303(d) list of impaired waterbodies and submit the list to US Environmental Protection Agency (USEPA). On behalf of the State Water Resources Control Board (State Board), all the Regional Boards are in the process of compiling recommended changes to the current 303(d) list. The State Board will review recommendations from all the Regional Boards, hold a public hearing to consider public comments, and adopt an updated statewide 303(d) list for submittal to the USEPA by April 2002.

At the October 26, 2001 Regional Board meeting, Board staff presented recommended revisions to the existing 1998 303(d) list for the Region, including additions and deletions. Staff also provided Waterbody Worksheets that summarized the data reviewed and staff's recommendation for each waterbody.

At the October 26, 2001 meeting, Orange County Health Care Agency (OCHCA) staff indicated the desire to meet with Board staff to review the proposed listings for beaches and coastal creeks, which were based on bacterial contamination data. On November 1, 2001, Board staff met with OCHCA staff to review the proposed list of waterbodies. Based on this discussion, additional changes to the revised 303(d) list recommended by Board staff on October 26 are now proposed. These include the addition of certain water bodies and deletion of certain waters that staff had proposed be added to the 1998 list. Other minor modifications are also appropriate. These changes and the rationale for these changes are provided in Attachment A. The data reviewed to support these changes are summarized in the Waterbody Worksheets in Attachment E.

Board staff received written comments on the October 26, 2001 staff report from the US Environmental Protection Agency (USEPA). These comments raised questions on the process and methodology staff utilized to identify waterbodies as impaired. Staff discussed the comments with USEPA, and as result of that discussion, USEPA has revised the comment letter. No changes to the 303(d) list as recommended on October 26, 2001 are proposed based upon USEPA comments. Attachment B contains USEPA's comment letter and staff's responses to USEPA comments.

Comments were also received from the Southern California Alliance of Publicly Owned Treatment Works (SCAP). These comments are included in Attachment C. SCAP's comments raise issues with the process for adoption of a statewide 303(d) list. Because the issues SCAP raises pertain to the statewide process and are not specific to the Regional Board review process, Board staff conferred with State Board staff on how best to address these comments. State Board staff have indicated that given the relevance of SCAP's comments to the statewide process, the responses are best prepared by State Board staff. Therefore, Regional Board staff have forwarded these comments to the State Board.

STAFF RECOMMENDATION

Direct staff to transmit the revised 303(d) list as shown in Attachment D, comments received and all other relevant materials to the State Water Resources Control in support of the Statewide Section 303(d) list adoption.

ATTACHMENTS

Attachment A: Proposed revisions to the recommended October 26, 2001 Santa Ana Region 2001/2002 Section 303(d) List of Impaired Waterbodies

Attachment B: Comment Letter from the US Environmental Protection Agency.
Response to US Environmental Protection Agency comments.

Attachment C: Comment Letter from the Southern California Alliance of Publicly Owned Treatment Works (SCAP)

Attachment D: Santa Ana Region 2001/2002 Section 303(d) List (incorporates all proposed changes)

Attachment E: (Revised) Waterbody Worksheets

ATTACHMENT A

PROPOSED REVISIONS TO THE RECOMMENDED OCTOBER 26, 2001 SANTA ANA REGION 2001/2002 SECTION 303(D) LIST

Proposed Additions to the Recommended 303(d) List

Waterbody	Pollutant	TMDL Priority	TMDL Development	
			Start Date	End Date
Santa Ana Delhi Channel	Fecal coliform	Medium	2010	2015
Pelican Point Middle Creek	Total/Fecal Coliform	Medium	2008	2011
Pelican Hill Waterfall	Total/Fecal Coliform	Medium	2008	2011

Santa Ana Delhi Channel: Santa Ana Delhi Channel is tributary to Upper Newport Bay and drains parts of the Cities of Santa Ana and Costa Mesa. Based on the fecal coliform data collected by OCHCA, OCHCA staff recommended that Santa Ana Delhi Channel be added to the 303(d) list of impaired waterbodies. In addition, during the development of the Newport Bay Coliform TMDL in 1999, Regional Board staff reviewed the fecal coliform data for Santa Ana Delhi Channel that indicated non-compliance with the Basin Plan fecal coliform standard (see the accompanying Waterbody Worksheet in Attachment E for a summary of the data). Therefore, staff concurs with OCHCA that it is appropriate to include the Santa Ana Delhi Channel on the 303(d) list of impaired waterbodies. The TMDL development schedule proposed is consistent with that specified for San Diego Creek since it is likely that these TMDLs would be developed in concert.

Pelican Point Middle Creek and Pelican Hill Waterfall: In the October 26, 2001 staff report, Regional Board staff proposed adding Pelican Point Creek as impaired due to bacterial contamination (based on OCHCA data). OCHCA staff indicated that Board staff had incorrectly combined three separate creeks, Pelican Point Creek, Pelican Point Middle Creek and Pelican Hill Waterfall, into the single Pelican Point Creek. OCHCA staff advised that it is appropriate to distinguish each of these waters individually. Furthermore, based on upon an evaluation of the data, Pelican Point Middle Creek and Pelican Hill Waterfall are proposed to be included on the 303(d) list due to bacterial contamination, as well as Pelican Point Creek. Staff is proposing that the TMDL development start and end dates be consistent with the other coastal creeks (Muddy Creek, Los Trancos Creek and Buck Gully Creek).

Proposed Modifications to the Recommended 303(d) List

Waterbody	Pollutant	TMDL Priority	TMDL Development	
			Start Date	End Date
Pelican Point Creek	Total/Fecal Coliform	Medium	~~2009~~ 2008	2011
Seal Beach ~~1~~1st ~~Street~~ San Gabriel River Mouth to Main Street Pier	Bacteria (wet season)	High	2007	2011

Pelican Point Creek: The tentative TMDL development start date should be 2008 instead of 2009 to be consistent with the TMDL development start dates for the other coastal creeks.

Seal Beach from San Gabriel River Mouth to Main Street Pier: Based on input from OCHCA staff, the listing should be revised to reflect that the actual beach area that is impaired due to bacterial contamination extends from the San Gabriel River Mouth (not 1st Street) to the Main Street Pier.

Proposed Deletions to the Recommended 303(d) List

Waterbody	Pollutant	TMDL Priority	TMDL Development	
			Start Date	End Date
Seal Beach Breakwater	Bacteria (wet season)	High	2007	2011
Huntington Beach – Dog Beach	Bacteria (wet season)	High	2007	2011
Newport Beach – 19th Street to 43rd Street	Bacteria (wet and dry seasons)	High	2005	2009
Little Corona Beach	Bacteria (wet season)	High	2007	2011

Seal Beach Breakwater: OCHCA staff clarified that the area of Seal Beach at the Breakwater is within the same area as "Seal Beach – San Gabriel River Mouth to Main Street Pier that is proposed for inclusion on the 303(d) list. Therefore, there is no for this separate listing.

Huntington Beach – Dog Beach: Dog Beach area was proposed to be listed based on the criteria staff utilized (7 consecutive days of beach posting during the 3 year assessment period). Based on discussions with OCHCA staff and a review of the beach posting information, it was determined that Dog Beach had only 1 occurrence in 1999 of 7 consecutive days of posting. There have been no postings since that time. Furthermore, the posting resulted from rainfall events and because of OCHCA's monitoring schedule, monitoring after the initial posting did not occur prior to the 7th day. OCHCA staff believes that if they had been performing the follow-up testing on a daily basis, the posting would likely have been lifted before the 7th day. Therefore, staff is proposing that Dog Beach be removed from the 303(d) list and instead added to the Priority 1 monitoring list. OCHCA staff believes that this is appropriate.

Newport Beach 19th Street to 43rd Street Beach: This beach location is not on the ocean front, but rather within Newport Bay. The Newport Bay Coliform TMDL in the Basin Plan and approved by USEPA addresses the bacterial contamination at this location.

Little Corona Beach: Like Huntington Beach – Dog Beach, Little Corona Beach was also proposed to be listed based on having 7 consecutive days of the beach posting in 1999. Again, there have been no postings at Little Corona Beach since that time. The 1999 posting occurred as a result of rainfall. Follow-up monitoring after the initial posting did not occur prior to the 7th day. OCHCA staff believes that if they had been performing the follow-up testing on a daily basis, the posting would likely have been lifted before the 7th day. Therefore, staff concurs with OCHCA recommendation to remove Little Corona Beach from the 303(d) list and to add the Beach to the Priority 1 monitoring list.

ATTACHMENT B

USEPA COMMENTS

REGIONAL BOARD STAFF RESPONSES TO USEPA COMMENTS

INTERAGENCY MEMO

TO: HOPE SMYTHE, SANTA ANA REGIONAL WATER BOARD

from: Peter Kozelka, USEPA Region 9
subject: comments on draft update of the 303(d) list
date: ~~12/05/01~~ 11/26/01
CC: PAVLOVA VITALE

EPA Region 9 has received the staff report, *draft Update of the 303(d) List* for Santa Ana RWQCB. This staff report makes a good start at presenting water quality assessment results; however, the *draft Update* is not complete and requires more thorough and transparent explanation of the decision process/methodology for listing or de-listing waterbodies. For example we cannot determine the weight of evidence approach used by Regional Board staff. Nor is it clearly articulated how staff interpreted numeric monitoring results against narrative water quality objectives. Regional Board staff has recommended that some waterbodies require further monitoring based upon few exceedances and/or limited data sets.

~~Also, it is uncertain if there is sufficient cause to warrant delisting waterbodies or "off ramping" from 1998 303(d) list based on actions other than establishing a TMDL~~. RB8 appears to have sufficient data to support delisting Santa Ana River. Chino Creek, Cucamonga Creek and XXX(Mill?) Creek may be removed from future lists due to improvements in water quality arising from permit related actions.

Here are some specific comments or other areas for revision.

1. The *draft Update* does not include a complete listing of data sources considered for this *Update*. It does provide a generic description of data sources yet it is difficult to determine which data sets were considered as part of waterbody assessments. As outlined in 40 CFR 130.7 (b)(5), EPA expects States to consider <u>all</u> existing and readly available (water, sediment, toxicity and tissue) data and other information as part of the assessment. Certainly this includes NPDES data included in DMR reports and academic research results, just to name a few. The staff report does not provide sufficient rationale (e.g., data quality, sample size, etc.) for deciding to exclude data and information from consideration as required in 40 CFR 130.7 (b)(6). Please attach a complete list of data sources actively solicited, submitted and those disregarded (with rationale) in the *Update*. Any data not listed is presumed to have not been used during this assessment, e.g., sediment monitoring data.

2. It is unclear why Regional Board staff believe that identifying a waterbody as impaired should not be based on a limited amount of data. The 1997 EPA 305(b) Guidance outlines some important considerations for making Aquatic Life Use Support determinations. Section 3 of the Guidance describes determinations for toxicants (page 3-18) and states partial support "for any one pollutant, acute or chronic criteria exceeded more than once within a 3-year period, but in <10% of samples." Further along in section 3 (3-22), there is a decision tree depicting partial support <u>within</u> nonattainment of beneficial uses and therefore monitoring data indicates the waterbody should be listed as impaired. The Guidance discusses minimum sample size only within toxicant assessments, so it does <u>not</u> apply to conventional, toxicity and biological data sets. Also, the draft Update neglects to mention the "magnitude of exceedance" of water/sediment/tissue results in its listing methodology. We recommend Regional Board staff list waterbodies with extremely high pollutant levels even if limited data are available. This is consistent with the Guidance, which implies that determinations can be made using smaller sample sets (3-18).

3. The *draft Update* states Regional Board staff used a weight of evidence approach in their determinations for each waterbody. This catch-all-phrase implies that multiple data sets were assessed for each waterbody, yet the decision process is not clearly described as it should be. In essence, staff need to provide more complete explanation of their determination. If staff have applied a universal weight of evidence approach then several examples may suffice to explain how it was applied to several waterbodies and yielded different results, much like case studies presented in 305(b) Guidance (3-24 to 3-26). However, if staff have applied their best professional judgment on a case-by-case basis then rationale must be more clearly articulated for assessment of each and every waterbody.

4. The *draft Update* describes some aspects of Beach closures due to bacteriological contamination. We are uncertain as to why only "narrative information" was reviewed. Any reason why Heal the Bay report card information could not be used independently to assess beach water quality? Just how are bacteriological data collected "in a manner inconsistent with the Ocean Plan objectives? It is not clear if beach posting for seven consecutive days for each and every year or just one year in four years) was required for inclusion on 303(d) list. The 305(b) Guidance suggests that less than one week's beach closure per year is sufficient for partial support; more than one week's duration does not support primary contact recreation use. EPA requests better articulation of assessment metholodogy and more consistency with 305(b) guidelines for beach closures (3-33 to 3-35).

EPA acknowledges the draft Update had listed two separate beaches and will now use only one name, Seal Beach. This renaming is not considered a movement to delist, simply a clarification issue.

5. The *draft Update* includes Water Quality Assessment worksheets outlining monitoring results per waterbody. It is uncertain as to why these worksheets have fish tissue results compared with several different tissue screening values. We recommend Regional Board staff make comparisons against just one value (presumably the most protective tissue value). Other aspects of tissue assessments need to be stated clearly for all to understand the rationale (see item 3 above).

6. Please modify Water Quality Assessment worksheets should be verified to be consistent with statements in *draft Update*. Some worksheets have stated Big Bear Lake and in-flowing creeks should be added to 303(d) list and yet these waterbodies appear in Table 4 describing Monitoring priority waterbodies. ~~Also, was there supposed to be Table 1 in the *draft Update*?~~

7. Newport Bay has been previously listed in 1998 for metals, pesticides and priority organics. Pursuant to consent decree, EPA and Regional Board staff are developing TMDLs for a limited suite of toxicants. Region 9 encourages Regional Board staff to continue to review data relevant to all potential contaminants within San Diego Creek, Upper and Lower Bay including Rhine Channel. For example, staff should complete assessments for nickel, polyaromatic hydrocarbons (PAHs), dioxins and other potential toxicants outside those cited in the consent decree. Per phone discussion (11/15/01) with EPA Region 9 staff and Santa Ana Regional Board staff, there will be no changes in draft Update for Newport Bay impairments due to "metal, pesticides and priority organics." Revisions can be completed once consent decree modifications or settlement issues have been finalized in writing.

8. Recent evidence of aquatic invasive species, *Caulerpa*, has been of concern, thus Regional Board staff have inquired about including this algae as part of 2002 list. To date, EPA feels invasive species are probably not included in pollutants as defined in section 303(d) of Clean Water Act.

EPA Region 9 Water Division staff recognize the complexities of assessing water quality data and the obvious implications and consequences when waterbodies are placed on the 303(d) list. We look forward to reviewing the next draft Update list prior to sharing this report with Regional Board, so we all can feel confident the list and methodologies are transparent and comprehensible. We suggest sharing the revised draft with us by Dec. 12, one week prior to Regional Board meeting on Dec. 19.

RESPONSE TO USEPA COMMENTS

Comment
USEPA supports delisting the Santa Ana River for total dissolved solids and nitrogen. USEPA recognizes that considering delisting Chino Creek, Cucamonga Creek/Mill Creek in the future may occur if water quality improvement are made as a result of implementing applicable permits (dairy general and stormwater permits).

Staff Response
Comment noted.

Comment
USEPA cannot determine the "weight of evidence" approach used by Board staff .

Staff Response
The weight of evidence approach applies to the use of 3 types of data to determine impairment: water column chemistry, sediment chemistry and benthic biology. Typically, impairment of a waterbody is defined if all three types of data show exceedances.

In the case of the Santa Ana Region, this information was not available for all waterbodies assessed. As summarized in the October 26, 2001 staff report, most of the data reviewed by staff were water column data. No sediment or biological community data were submitted or available for review.

Comment
USEPA is unclear how staff interpreted numeric monitoring results against water quality objectives.

Staff Response
For each waterbody assessed, Board staff first identified the applicable beneficial uses for that waterbody as specified in the Basin Plan or based on Best Professional Judgement (BPJ) for those waterbodies not specifically listed in the Basin Plan. Staff then identified water quality objectives intended to protect identified beneficial uses. Narrative and numeric water quality objectives specified in the Basin Plan, statewide water quality objectives (California Toxics Rule) or other regulatory objectives (FDA Action Levels) were identified. Staff determined if a minimum of 10 data points of a particular parameter were available for that waterbody (10 data points across the 3 year period or 10 sampling locations within a waterbody). The data were then compared to the applicable water quality objective to identify if the appropriate objective was being exceeded. If there was an exceedance of an objective, the appropriate beneficial use(s) were noted as being not supported. The waterbody was then recommended for inclusion on the 303(d) list. Board staff did not require a certain percentage of exceedances (*i.e.,* 10% of values needed to exceed the objective) for staff to consider a listing. Staff recommended listing if any of the 10 minimum required data points exceeded an objective.

Staff believes that any inherent conservatism in specifying a minimum of 10 data points is balanced by a very conservative approach of proposing a 303(d) listing if <u>any</u> of the data exceeded an objective.

Comment
USEPA believes that staff has not provided a complete listing of all data considered for the update. Specifically, USEPA is concerned that NPDES discharge data and academic research data were not reviewed.

Staff Response
The October 26, 2001 staff report contained a list of waterbodies assessed and a general description of the types of data reviewed. In addition, the Waterbody Worksheets provide a complete description of data reviewed for each waterbody assessed. Nonetheless, a complete list of all data received and reviewed is provided in an attachment to these responses.

With respect to NPDES and Waste Discharge data, Board staff did solicit input from the Regional Board's Surveillance and Enforcement section on data submitted pursuant to permit requirements. Staff believes, however that exceedances of NPDES permit limits should not serve as the basis for identifying waterbodies as impaired. Presumably any exceedance of a permit condition (technology based controls) would be short-term and addressed through the Board's regulatory program. Board staff did review receiving water data submitted pursuant to the Orange County stormwater permit. However, because of time constraints, Regional Board staff has not completed the review of the San Bernardino County stormwater quality data. In addition, stormwater quality data collected by Riverside County is not in an electronic format. Therefore, Regional Board staff will continue to review both the San Bernardino and Riverside County stormwater quality data. If the data support any changes to the 303(d) list, Board staff will provide any recommendations to the State Board for inclusion in the Statewide 303(d) list submittal

Comment
USEPA does not believe that staff have provided adequate justification for relying on a minimum of 10 data points to make impairment decisions. USEPA comments that the 305(b) Assessment guidance recommends additional considerations for determining Aquatic Life Support determinations.

Staff Response
Regional Board staff believe that because of the variability associated with environmental data, at least 10 data points are needed to make a judgement about the status of a waterbody. In fact, staff would definitely prefer more than 10 data points. Staff recognizes that the 305(b) Assessment Guidance is more complex than explained in the October 26, 2001 staff report. The 305(b) guidance recommends a minimum of 10 data points (for toxicants) to make "fully-supporting" or "not-supporting" decisions. When less than 10 data are available (and again, this is for toxicants), the 305(b) guidance recommends that states use discretion and consider other factors (such as magnitude of exceedance and if there are multiple numbers of pollutants with exceedances). Given that the 305(b) report is silent on the recommended number of samples for conventional or other pollutants, and given the lack of specific state guidance, Board staff felt it was appropriate to use a consistent methodology for all parameters and therefore, utilized a minimum of 10 data points.

Staff believes that the fact that the guidance recommends a minimum data set of 10 (along with other considerations) indicates that staff's approach is reasonable. Furthermore, as explained above, staff believes that the 10 data point "rule" combined with any noted exceedance resulting in a 303(d) listing, produces a supportable 303(d) listing. Also, USEPA needs to keep in mind that, as explained in the October 26, 2001 staff report, the "10 data points" could be 1 station in a waterbody with 10 data points or it could be several stations sampled throughout a waterbody with a total of 10 data points.

Finally, staff would also like to emphasize that for those waterbodies and pollutants where there are fewer than 10 data points, staff recognizes the need to obtain the data to make an impairment decision. Staff is working on a long term monitoring strategy that will result in the collection of the needed data for the next 303(d) listing cycle.

Comment
The October 26, 2001 staff report does not take into account the "magnitude of exceedance" for deciding a listing decision. USEPA recommends that waterbodies with extremely high pollutant levels (even if less than 10 data points are available) be placed on the 303(d) list.

Staff Response
USEPA fails to specify what they consider "extremely high" exceedances, and therefore staff believes that taking USEPA's approach would not be consistent for all parameters and all waterbodies. As previously explained, staff first looked to determine if there were a minimum of 10 data points. If so, then staff determined if there were any exceedances of applicable standards regardless of the magnitude of exceedance. If so, then the waterbody was proposed for listing. In order to be consistent, staff does not believe that waterbodies should be considered for listing because of an "extremely high" magnitude of exceedance where the minimum data set requirement was not met.

Comment
USEPA believes that additional detail needs to be provided on how the case-by-case decisions were made for each waterbody.

Staff Response
A 303(d) Listing Decision Flow Chart is attached to these responses. Furthermore, the Waterbody Worksheets contain a summary of the data, the waterbody beneficial uses and applicable water quality objectives, the number of exceedances of objectives, and staff's recommendation for that waterbody. Staff believes that this is adequate for providing the case-by-case rationale for each waterbody.

Comment
USEPA questions why only beach posting information (narrative information) was used for evaluating the beach status. USEPA also questioned how the bacterial data were inconsistent with Ocean Plan objective, as stated in the October 26, 2001 staff report. USEPA questions if the 7 consecutive days of beach closure was for a 1year period or the 3-year assessment period. USEPA mentions that the 305(b) guidance suggests partial support of beneficial uses for beaches closed less than 7 days a week in a year's period and loss of beneficial uses for beach closed more than 7 days in a year (both constitute impairment). USEPA recommends that the Regions' beach assessment be more consistent with the 305(b) guidance.

Staff Response
Narrative information for beaches was reviewed because there were many cases for which the appropriate number of samples to determine compliance with the Ocean Plan standard (5 samples per 30 day period) were not collected. However, it is important to emphasize that beach postings for bacterial contamination are based on bacterial data collected pursuant to the California Health and Safety Code (AB411).

Staff agrees that the October 26, 2001 staff report was unclear as to what time period the 7 consecutive days of posting constituted. Staff's criteria for considering listing a beach was that there had to be 7 consecutive days of beach posting during the 3 year assessment period. While the time frame differs

between staff's methodology and the 305(b) guidance, staff believes that our approach is more clearly defined and specific than outlined in the 305(b) guidance. The 305(b) guidance specifies that less than 1 week of closure (during a year) indicates non-support. It is not clear what constitutes less than 1 week:; 1 day, 3 days or up to 6 days. In many cases in the Region, beaches are closed due to sewage spills. These events are transitory in nature and are addressed through the implementation of technology based controls. Staff believes that the methodology and criteria that staff used are clear and result in a 303(d) listing that reflects real water quality problems.

Comment
USEPA questions why fish tissue data are compared to several tissue screening values. USEPA recommends that staff evaluate the data against the most stringent standard.

Staff Response
Because of the lack of adequate fish tissue data, no 303(d) listing recommendations were made based on fish tissue data, Staff believes that it is appropriate to consider all standards and screening values that may be applicable since the various screening values address different impacts to applicable beneficial uses. For example, the FDA action levels address impacts to human health (through fish consumption), while the NAS guidelines address impacts to wildlife. .

Comment
USEPA notes that the Waterbody Worksheets for Big Bear Lake and some of the tributaries to the Lake are inconsistent with the staff recommendation in the Staff Report.

Staff Response
Comment noted. Staff will revise the Waterbody Worksheets where appropriate.

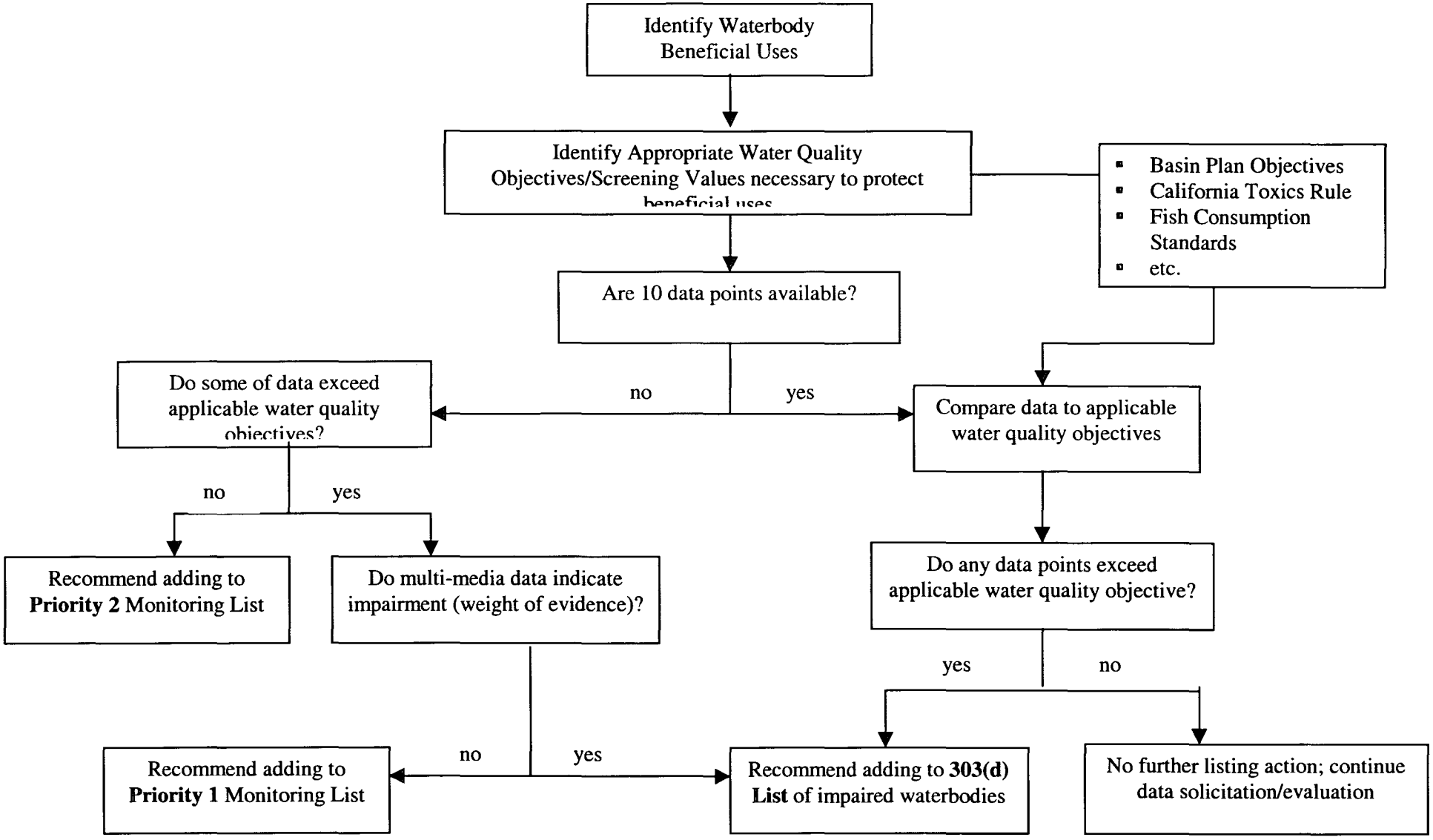
Comment
USEPA requested that additional assessment of Newport Bay watershed waterbodies for toxics be conducted (outside of the USEPA development of the list of toxic constituents for which TMDLs are to be developed).

Staff Response
As noted in USEPA's revised comments, USEPA recognizes that staff is not proposing any deletions or changes to the current listing for toxics for waterbodies in the Newport Bay watershed. Therefore, if individual constituents are determined to be causing impairment in the future, staff can modify the 303(d) listing as appropriate.

Comment
USEPA is not recommending listing a waterbody as impaired for the invasive algae *Caulerpa.*

Staff Response
Comment noted.

Santa Ana Region
303(d) Listing Decision Flow Chart



Data Sources Table

WATER BODY NAME	TYPE OF DATA REVIEWED	SOURCE	YEARS/ SEASON
Anaheim Bay	Fish Tissue	• Coastal Fish Contamination Program - State Water Resources Control Board	**1999, 2000 Season not applicable**
	Water Column Chemistry	• Orange County Public Facilities Resource Dept	**1999,2000 Wet & Dry**
Bolsa Chica	Water Column Chemistry	• Orange County Public Facilities Resource Dept	**1999,2000 Wet & Dry**
Buck Gully Creek	Water Column Chemistry	• Orange County Health Care Agency	**1997-2001 Wet & Dry**
Huntington Harbour	Water Column Chemistry	• Orange County Public Facilities Resource Dept	**1999,2000 Wet & Dry**
	Mussel Tissue	• Mussel Watch - State Water Resources Control Board	**1998-2000 Season not applicable**
Huntington Beach State Park	Fish Tissue	• Coastal Fish Contamination Program – State Water Resources Control Board	**1999, 2000 Season not applicable**
	Water Column Chemistry	• Orange County Health Care Agency	**1999-2001 Wet & Dry**
Los Trancos Creek	Water Column Chemistry	• Orange County Health Care Agency • The Irvine Company	**1997-2001 Wet & Dry**
Muddy Creek	Water Column Chemistry	• Orange County Health Care Agency • The Irvine Company	**1997-2001 Wet & Dry**
Newport Bay	Fish Tissue	• Coastal Fish Contamination Program – State Water Resources Control Board	**1999, 2000 Season not applicable**

WATER BODY NAME	TYPE OF DATA REVIEWED	SOURCE	YEARS/ SEASON
Newport Beaches	Fish Tissue	• Coastal Fish Contamination Program – State Water Resources Control Board	**1999, 2000 Season not applicable**
	Water Column Chemistry	• Orange County Health Care Agency	**1999-2001 Wet Only**
Ocean Waters (oil platforms)	Fish Tissue	• Coastal Fish Contamination Program – State Water Resources Control Board	**1999, 2000 Season not applicable**
Pelican Point Creek	Water Column Chemistry	• Orange County Health Care Agency	**1997-2001 Wet & Dry**
Pelican Point Middle Creek	Water Column Chemistry	• Orange County Health Care Agency	**1997-2001 Wet & Dry**
Pelican Hill Waterfall	Water Column Chemistry	• Orange County Health Care Agency	**1997-2001 Wet & Dry**
San Diego Creek	Water Column Chemistry	• RWQCB 8 Nov 24, 1998 Newport Bay TMDL Problem Statement	**1997,1998 Wet & Dry**
Santa Ana Delhi Channel	Water Column Chemistry	• Orange County Health Care Agency • RWQCB 8 Nov 24, 1998 Newport Bay TMDL Problem Statement	**1997,1998 Wet & Dry**
Seal Beach	Water Column Chemistry	• Orange County Health Care Agency	**1999-2001 Wet & Dry**
	Fish Tissue	• Coastal Fish Contamination Program – State Water Resources Control Board	**1999,2000 Season not applicable**
Canyon Lake	Sediment	• City of Canyon Lake	**1986-1997 Season not applicable**
Cucamonga Creek	Water Column Chemistry	• Orange County Water District	**1998,2000,2001 Wet Only**
Chino Creek	Water Column Chemistry	• Orange County Water District	**1997-2000 Wet & Dry**

WATER BODY NAME	TYPE OF DATA REVIEWED	SOURCE	YEARS/ SEASON
Mill Creek	Water Column Chemistry	• Orange County Water District	**1997-2000 Wet & Dry**
San Timoteo Creek	No ambient data received only outfall data	• Yucaipa Valley Municipal Water District	**Not applicable**
Santa Ana River Reaches 2, 3, 4, 5	Water Column Chemistry	• Orange County Water District • RWQCB 8 Monitoring data	**1997-2000 Wet & Dry**
Temescal Creek	Water Column Chemistry	• Orange County Water District	**1997-2000 Dry Only**
Big Bear Lake	Water Column Chemistry	• Big Bear Lake Municipal Water District	**2000 Wet & Dry**
Boulder Creek	Water Column Chemistry	• Big Bear Lake Municipal Water District	**2000 Wet & Dry**
Grout Creek	Water Column Chemistry	• Big Bear Lake Municipal Water District	**2000 Wet & Dry**
Knickerbocker Creek	Water Column Chemistry	• Big Bear Lake Municipal Water District	**2000 Wet & Dry**
Metcalf Creek	Water Column Chemistry	• Big Bear Lake Municipal Water District	**2000 Wet & Dry**
Rathbun Creek	Water Column Chemistry	• Big Bear Lake Municipal Water District	**2000 Wet & Dry**
San Jacinto Creek	Water Column Chemistry	• Lake Hemet Municipal Water District	**1998-2001 Wet Only**
Strawberry Creek	Water Column Chemistry	• Lake Hemet Municipal Water District	**1998-2001 Wet Only**
Varies throughout the Region	Water Column Chemistry	• NPDES/WDR discharger monitoring data	**1998-2000 Wet & Dry**

ATTACHMENT C

COMMENT LETTER FROM THE

SOUTHERN CALIFORNIA ALLIANCE OF PUBLICLY OWNED TREATMENT WORKS (SCAP)

ATTACHMENT D

SANTA ANA REGION 2001/2002
PROPOSED SECTION 303(D)LIST

ATTACHMENT E

(REVISED) WATERBODY WORKSHEETS

Huntington Beach

BEACH NAME	SOURCE OF DATA	# OF ~~posting~~ CLOSURES (date)	REASON FOR ~~CLOSURE~~ Posting	~~HEAL THE BAY GRADE~~ (# of days posted)	RECOMMENDATION
~~300' upcoast of SAR, Hunt St Bch, Hbr Bch & Newport Bch~~	OCHCA	~~2-19-01~~	P		
Hunt Harbour Mothers Beach	OCHCA	7.29.99		5	
		10.29.99		4	
		7.18.00		2	
		8.3.00		2	
		10.17.00		2	
		3.22.01		2	
		7.4.01		2	
Hunt. St. Bch. SLG7 #15 (OCSD in)		9.4.99		1	
Hunt. Harb. Trinidad		11 4.99		3	
		1.2.00		2	
		4.21.00		2	
		11.21.00		3	
		3.15.01		2	
		5.17.01		2	
		5.24.01		3	

2001 Water Quality Assessment Worksheets

Coastal Water Bodies

1. Anaheim Bay:

- Beneficial Uses: REC1, REC 2, NAV, BIOL, RARE, WILD, SPWN, MAR
- Hydrologic Unit: 801.11
- Total Water Body Size: 180 acres
- Size Impaired: Unknown at this time
- Extent of Impairment: Unknown at this time
- Data Analyses:
  Coastal Fish Contamination Data:
  - Shiner Surfperch – 1/1 exceeded the MTRL ddepp_w standard of 32.0 ug/kg
  - Yellow Croaker - 1/1 exceeded the MTRL ddepp_w standard of 32.0 ug/kg
  - Yellowfin Croaker – 1/1 exceeded the MTRL Hg standard of 0.00037 ug/g
  - Diamond Turbot – 1/1 exceeded the MTRL Hg standard of 0.00037 ug/g
  - 2/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Dieldrin standard of 0.7 ug/kg
  - 2/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" total PCB standard of 5.3 ug/kg
  - Diamond Turbot – 0/1 exceeded the NAS Hg standard of 0.5 ug/g
  - Diamond Turbot – 0/1 exceeded the FDA Hg standard of 1.0 ug/g
  - Black Surfperch - 0/1 exceeded the NAS Hg standard of 0.5 ug/g
  - Black Surfperch – 0/1 exceeded the FDA Hg standard of 1.0 ug/g
  - Yellowfin Croaker – 0/1 exceeded the NAS Hg standard of 0.5 ug/g
  - Yellowfin Croaker – 0/1 exceeded the FDA Hg standard of 1.0 ug/g
  - Diamond Turbot - 0/1 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
  - Diamond Turbot – 0/1 exceeded the NAS Endosulfan standard of 0.1 ug/g
  - Black Surfperch - 0/1 exceeded the MTRL Endosulfan standard of 64.8 mg/kg
  - Black Surfperch – 0/1 exceeded the NAS Endosulfan standard of 0.1 ug/g

- Diamond Turbot – 0/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg
- Black Surfperch – 0/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg
- Shiner Surfperch – 0/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg
- Yellow Croaker – 0/1 exceeded the "MTRLs in Enclosed Bays" ddepp_w standard of 32.0 ug/kg

Orange County PFRD data:

- 0/1 exceeded the "EBE 4-Day Average" Cd standard of 9.3 ug/L
- 0/1 exceeded the "EBE 4-Day Average" Cr standard of 50 ug/L
- 1/1 exceeded the "EBE 4-Day Average" Cu standard of 3.1 ug/L
- 0/1 exceeded the "EBE 4-Day Average" Pb standard of 8.1 ug/L
- 1/1 exceeded the "EBE 4-Day Average" Ni standard of 8.2 ug/L
- 0/1 exceeded the "EBE 4-Day Average" Zn standard of 81 ug/L

Anaheim Bay / Navy Marsh

- Data Analyses:

Coastal Fish Contamination Data:

- 0/1 exceeded the FDA Hg standard of 1.0 ppm wet weight
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Aldrin standard of 0.33 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Endosulfan I standard of 64,800 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Endosulfan II standard of 64,800 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Endosulfan Sulfate standard of 64,800 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" alpha HCH standard of 1.7 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" beta HCH standard of 6.0 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" gamma HCH standard of 8.2 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" helptachlor standard of 2.3 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" heptachlor epoxide standard of 1.2 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" heptachlorobenzene standard of 6.7 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" toxaphene standard of 9.8 ug/kg

Orange County PFRD data

- 0/2 exceeded the "EBE 4-Day Average" Cd standard of 9.3 ug/L
- 0/2 exceeded the "EBE 4-Day Average" Cr standard of 50 ug/L
- 2/2 exceeded the "EBE 4-Day Average" Cu standard of 3.1 ug/L
- 0/2 exceeded the "EBE 4-Day Average" Pb standard of 8.1 ug/L
- 2/2 exceeded the "EBE 4-Day Average" Ni standard of 8.2 ug/L
- 0/2 exceeded the "EBE 4-Day Average" Zn standard of 81 ug/L

- Potential Sources: Unknown at this time

- Recommendation: More monitoring due to not enough data points available per parameter to reach a conclusion for impairment and insufficient data to back up results. Water quality assessment study currently underway

- TMDL Priority: None at this time

- TMDL Start Date: Not applicable at this time

- TMDL End Date: Not applicable at this time

Sample ID	NewStation Number	NEWSTATION NAME	MISC STATION INFO	Data Reporting Year	SPECIES CODE	SPECIES NAME	SKIN PREP	NEW LAT	NEW LONG	COLLECTION DATE	Special Treatment	N (Number per sample)	>25%	Length (1) mm
99-0532-t	8020	Huntington Beach Pier		Year1	YC	Yellowfin Croaker	N	33 39.42	118 00.22	30-Mar-99		5.00		207
99-1467-t	8030	Huntington Beach		Year2	BRS	Barred Surfperch	N	33 39.86	118 01.34	20-Oct-99		10.00		133
99-1468-t	8030	Huntington Beach		Year2	SHS	Shiner Surfperch	S	33 39.86	118 01.34	20-Oct-99		10.00		109
99-0821-t	8040	Newport Beach		Year1	WSP	Walleye Surfperch	S	33 36.10	117 55.20	22-Jun-99		3.00		183
99-0948-t	8040	Newport Beach		Year1	BRS	Barred Surfperch	N	33 36.10	117 55.20	4-Aug-99		5.00		125
99-0949-t	8040	Newport Beach		Year1	CC	California Corbina	N	33 36.10	117 55.20	4-Aug-99		5.00		173
99-1994-t	8040	Newport Beach		Year2	BRS	Barred Surfperch	N	33 36.10	117 55.20	11-Nov-99		10.00		143
99-1995-t	8040	Newport Beach		Year2	SHS	Shiner Surfperch	S	33 36.10	117 55.20	11-Nov-99		10.00		110
99-1993-t	8040	Newport Beach		Year2	WC	White Croaker	N	33 36.10	117 55.20	11-Nov-99		5.00		172
99-0774-t	8050	Newport Pier		Year1	STR	Spotted Turbot	S	33 36.35	117 55.95	16-Jun-99		3.00		223
99-0950-t	8050	Newport Pier		Year1	BRS	Barred Surfperch	N	33 36.35	117 55.95	4-Aug-99		5.00		125
99-0951-t	8050	Newport Pier		Year1	CC	California Corbina	N	33 36.35	117 55.95	4-Aug-99		5.00		184
99-0952-t	8050	Newport Pier		Year1	YC	Yellowfin Croaker	N	33 36.35	117 55.95	4-Aug-99		3.00		150
99-1998-t	8050	Newport Beach Pier		Year2	BRS	Barred Surfperch	N	33 36.29	117 55.73	11-Nov-99		10.00		146
99-1996	8050	Newport Beach Pier		Year2	WC	White Croaker	N	33 36.29	117 55.73	11-Nov-99		5.00		169
99-0764-t	8060	Balboa Pier		Year1	WSP	Walleye Surfperch	S	33 36.05	117 54.07	9-Jun-99		5.00		160
99-0773-t	8060	Balboa Pier		Year1	DT	Diamond Turbot	S	33 36.05	117 54.07	15-Jun-99		5.00		261
00-0449-t	8060	Balboa Pier		Year2	BRS	Barred Surfperch	N	33 35.89	117 54.13	6-Apr-00		3.00	Y	179
00-0453-t	8060	Balboa Pier		Year2	DT	Diamond Turbot	S	33 35.89	117 54.13	6-Apr-00		4.00		246
99-0729-t	8070	Newport Jetty		Year1	SSF	Spotted Scorpionfish	N	33 35.52	117 52.83	19-May-99		5.00		135
99-0730-t	8070	Newport Jetty		Year1	STR	Spotted Turbot	S	33 35.52	117 52.83	19-May-99		5.00		190
99-1268-t	8070	Newport Jetty		Year2	BLS	Black Surfperch	N	33 35.84	117 52.82	14-Oct-99		5.00		120
99-1269-t	8070	Newport Jetty		Year2	SHS	Shiner Surfperch	S	33 35.84	117 52.82	14-Oct-99		10.00		97
99-1266-t	8070	Newport Jetty		Year2	STR	Spotted Turbot	S	33 35.84	117 52.82	14-Oct-99		5.00		183
99-0725-t	8080	Newport Bay/above PCH Br		Year1	DT	Diamond Turbot	S	33 37.26	117 53.84	19-May-99		5.00		200
99-0749-t	8080	Newport Bay/above PCH Br		Year1	SHS	Shiner Surfperch	N	33 37.26	117 53.84	27-May-99		5.00		126
99-1265-t	8080	Newport Bay/above PCH Br		Year2	SHS	Shiner Surfperch	S	33 36.48	117 54.04	13-Oct-99		10.00		101
99-1264-t	8080	Newport Bay/above PCH Br		Year2	STR	Spotted Turbot	S	33 36.48	117 54.04	13-Oct-99		5.00		206
99-1263-t	8080	Newport Bay/above PCH Br		Year2	YC	Yellowfin Croaker	N	33 36.48	117 54.04	13-Oct-99		4.00		252
99-1215-t	8100	Emma Oil Platform		Year2	BLS	Black Surfperch	N	33 39.75	118 02.71	5-Oct-99		4.00		267
99-1214-t	8100	Emma Oil Platform		Year2	KB	Kelp Bass	N	33 39.75	118 02.71	5-Oct-99		5.00		325
99-1217-t	8100	Emma Oil Platform		Year2	OPE	Opaleye	N	33 39.75	118 02.71	5-Oct-99		5.00		311
99-0765-t	8110	Anaheim Bay		Year1	DT	Diamond Turbot	S	33 43.90	118 04.22	8-Jun-99		5.00		235
99-1260-t	8110	Anaheim Bay		Year2	BLS	Black Surfperch	N	33 43.73	118 04.65	13-Oct-99		5.00		148
99-1262-t	8110	Anaheim Bay		Year2	SHS	Shiner Surfperch	S	33 43.73	118 04.65	13-Oct-99		10.00		106
99-1259-t	8110	Anaheim Bay		Year2	YC	Yellowfin Croaker	N	33 43.73	118 04.65	13-Oct-99		4.00		242
00-0672-t	8130	Esther Oil Platform		Year2	BLS	Black Surfperch	N	33 43.16	118 06.81	17-May-00		5.00		260
00-0673-t	8130	Esther Oil Platform		Year2	KB	Kelp Bass	N	33 43.16	118 06.81	17-May-00		5.00		312

Sample ID	Length (2) mm	Length (3) mm	Length (4) mm	Length (5) mm	Length (6) mm	Length (7) mm	Length (8) mm	Length (9) mm	Length (10) mm	Length (11) mm	Length (12) mm	Length (13) mm	Length (14) mm	Length (15) mm	Length (16) mm	Length (17) mm	Length (18) mm	Length (19) mm	Length (20) mm	Weight (1) g
99-0532-t	208	209	258	267																99.21
99-1467-t	134	134	135	136	138	138	140	144	144											31.62
99-1468-t	111	112	113	113	116	117	118	119	121											12.41
99-0821-t	168	161																		108.39
99-0948-t	135	135	138	147																31.14
99-0949-t	187	188	189	190																38.02
99-1994-t	146	149	152	153	156	158	159	160	162											41.54
99-1995-t	115	116	116	117	117	118	119	119	121											13.85
99-1993-t	173	175	176	179																53.50
99-0774-t	217	215																		145.90
99-0950-t	128	130	133	135																28.92
99-0951-t	184	195	204	213																58.89
99-0952-t	155	147																		35.00
99-1998-t	147	147	148	148	149	152	152	153	153											45.67
99-1996	174	179	181	183																43.20
99-0764-t	164	165	167	205																64.31
99-0773-t	216	230	236	225																217.50
00-0449-t	170	264																		76.80
00-0453-t	242	234	222																	176.00
99-0729-t	140	155	165	175																45.48
99-0730-t	195	205	225	225																99.97
99-1268-t	127	129	130	139																23.00
99-1269-t	98	99	101	102	103	103	105	107	108											9.51
99-1266-t	194	202	227	230																65.10
99-0725-t	200	210	220	220																109.69
99-0749-t	133	135	137	148																24.84
99-1265-t	102	102	103	103	104	105	105	105	106											10.24
99-1264-t	208	209	210	234																99.60
99-1263-t	259	300	320																	149.00
99-1215-t	284	290	298																	439.00
99-1214-t	326	334	336	338																445.00
99-1217-t	331	334	341	380																557.00
99-0765-t	237	240	245	261																165.00
99-1260-t	154	156	157	162																65.50
99-1262-t	110	110	110	112	113	114	115	118	120											12.69
99-1259-t	295	299	300																	155.00
00-0672-t	262	270	286	290																378.00
00-0673-t	316	324	336	356																342.00

Sample ID	Weight (2) g	Weight (3) g	Weight (4) g	Weight (5) g	Weight (6) g	Weight (7) g	Weight (8) g	Weight (9) g	Weight (10) g	Weight (11) g	Weight (12) g	Weight (13) g	Weight (14) g	Weight (15) g	Weight (16) g	Weight (17) g	Weight (18) g	Weight (19) g	Weight (20) g	Total Weight g	Ag_w µg/g
99-0532-t	104.35	106.32	163.33	197.86																	NA
99-1467-t	33.21	33.85	37.13	37.65	38.57	39.47	42.31	42.84	50.77												NA
99-1468-t	12.51	13.99	15.03	15.35	17.04	17.58	17.70	19.56	21.56												NA
99-0821-t	74.24	68.62																			NA
99-0948-t	34.68	37.20	39.30	45.60																	NA
99-0949-t	48.81	49.18	51.33	57.97																	NA
99-1994-t	45.52	47.42	49.88	51.49	51.96	54.99	55.77	55.83	60.45												NA
99-1995-t	14.11	14.50	14.94	15.09	15.52	16.03	18.13	20.06	20.28												NA
99-1993-t	54.30	57.90	58.00	63.00																	NA
99-0774-t	126.00	124.00																			NA
99-0950-t	30.68	33.90	34.82	38.06																	NA
99-0951-t	59.92	60.45	70.45	83.41																	NA
99-0952-t	45.95	29.00																			NA
99-1998-t	46.40	46.56	47.03	47.80	48.70	50.01	53.20	54.97	55.66												NA
99-1996	50.20	52.70	56.60	60.90																	NA
99-0764-t	68.49	68.52	68.69	136.99																	NA
99-0773-t	165.26	157.22	146.88	156.54																	NA
00-0449-t	53.40	303.00																			NA
00-0453-t	170.00	166.00	122.00																		NA
99-0729-t	49.69	68.89	77.36	85.08																	NA
99-0730-t	103.72	135.35	142.00	174.18																	NA
99-1268-t	31.20	33.30	36.40	44.10																	NA
99-1269-t	10.59	10.73	11.16	11.90	12.06	13.57	13.73	14.05	14.23												NA
99-1266-t	84.10	119.00	143.00	143.00																	NA
99-0725-t	123.80	124.82	125.99	139.26																	NA
99-0749-t	35.85	35.98	36.83	47.85																	NA
99-1265-t	11.20	11.45	11.49	11.77	11.77	11.94	12.18	12.33	12.39	15.56	16.06	16.10									NA
99-1264-t	105.00	118.00	139.00	149.00																	NA
99-1263-t	183.00	261.00	337.00																		NA
99-1215-t	508.00	511.00	599.00																		NA
99-1214-t	497.00	507.00	507.00	574.00																	NA
99-1217-t	574.00	627.00	771.00	1020.00																	NA
99-0765-t	187.86	190.02	196.06	233.71																	NA
99-1260-t	70.20	73.20	77.80	79.70																	NA
99-1262-t	14.00	14.24	14.45	15.20	15.30	18.13	21.97	22.34	23.60												NA
99-1259-t	314.00	340.00	413.00																		NA
00-0672-t	406.00	415.00	517.00	569.00																	NA
00-0673-t	386.00	497.00	542.00	729.00																	NA

Sample ID	As_w µg/g	Cd_w µg/g	Cr_w µg/g	Cu_w µg/g	Hg_w µg/g	Ni_w µg/g	Pb_w µg/g	Se_w µg/g	Zn_w µg/g	% Moisture MLML	ANALYSES	PWATF	PLIPF	aldrn_w ng/g	ccdan_w ng/g	tcdan_w ng/g
99-0532-t	0.3860	-0.0010	NA	NA	0.0826	NA	NA	0.3110	NA	78.54	M	79.30	0.50	-1.00	-2.00	-2.00
99-1467-t	0.9033	-0.0020	NA	NA	0.0315	NA	NA	0.2846	NA	78.25	MO	78.80	0.66	-1.00	-2.00	-2.00
99-1468-t	0.7873	0.0062	NA	NA	-0.0150	NA	NA	0.3671	NA	74.99	MO	75.00	3.07	-1.00	-2.00	-2.00
99-0821-t	0.6180	0.0042	NA	NA	0.0984	NA	NA	0.4060	NA	74.97	M	76.60	3.48	-1.00	-2.00	-2.00
99-0948-t	0.8110	-0.0010	NA	NA	0.0400	NA	NA	0.4970	NA	77.29	M	78.50	1.34	-1.00	-2.00	-2.00
99-0949-t	0.4490	-0.0010	NA	NA	0.0316	NA	NA	0.3500	NA	78.39	M	79.60	0.60	-1.00	-2.00	-2.00
99-1994-t	0.6011	-0.0020	NA	NA	0.0317	NA	NA	0.3333	NA	77.53	MO	77.50	1.33	-1.00	-2.00	-2.00
99-1995-t	1.1298	0.0072	NA	NA	-0.0150	NA	NA	0.4035	NA	74.48	MO	75.30	4.18	-1.00	2.35	-2.00
99-1993-t	0.7783	-0.0020	NA	NA	0.0223	NA	NA	0.3110	NA	77.65	MO	78.30	1.16	-1.00	-2.00	-2.00
99-0774-t	2.6900	0.0040	NA	NA	0.0420	NA	NA	0.3230	NA	78.47	M	76.60	0.29	-1.00	-2.00	-2.00
99-0950-t	1.0600	-0.0010	NA	NA	0.0388	NA	NA	0.4570	NA	77.05	M	78.10	1.86	-1.00	-2.00	-2.00
99-0951-t	0.4110	-0.0010	NA	NA	0.0247	NA	NA	0.2750	NA	78.48	M	79.60	0.64	-1.00	-2.00	-2.00
99-0952-t	0.5290	0.0045	NA	NA	0.0565	NA	NA	0.2940	NA	80.12	M	80.10	0.45	-1.00	-2.00	-2.00
99-1998-t	0.5771	-0.0020	NA	NA	0.0298	NA	NA	0.2763	NA	77.28	MO	77.70	1.06	-1.00	-2.00	-2.00
99-1996	0.6680	-0.0020	NA	NA	0.0316	NA	NA	0.3314	NA	77.11	MO	77.90	1.67	-1.00	-2.00	-2.00
99-0764-t	0.5870	-0.0010	NA	NA	0.1280	NA	NA	0.2880	NA	78.00	M	77.70	2.75	-1.00	-2.00	-2.00
99-0773-t	4.0000	-0.0010	NA	NA	0.0817	NA	NA	0.3750	NA	77.56	M	78.90	0.31	-1.00	-2.00	-2.00
00-0449-t	0.9109	0.0038	NA	NA	0.0483	NA	NA	0.3744	NA	78.53	MO	79.10	0.75	-1.00	-2.00	-2.00
00-0453-t	3.0943	0.0020	NA	NA	0.0646	NA	NA	0.5890	NA	80.72	MO	80.40	0.36	-1.00	-2.00	-2.00
99-0729-t	0.2020	-0.0010	NA	NA	0.0449	NA	NA	0.1060	NA	79.21	MO	81.40	0.21	-1.00	-2.00	-2.00
99-0730-t	3.1200	-0.0010	NA	NA	0.0383	NA	NA	0.2570	NA	78.75	M	78.50	0.46	-1.00	-2.00	-2.00
99-1268-t	0.7736	-0.0020	NA	NA	0.0223	NA	NA	0.3312	NA	78.81	MO	79.70	0.85	-1.00	-2.00	-2.00
99-1269-t	0.9065	0.0053	NA	NA	-0.0150	NA	NA	0.3442	NA	76.92	MO	77.40	2.37	-1.00	-2.00	-2.00
99-1266-t	3.6733	-0.0020	NA	NA	0.0459	NA	NA	0.3189	NA	76.08	MO	77.30	0.73	-1.00	-2.00	-2.00
99-0725-t	1.8800	-0.0010	NA	NA	-0.0150	NA	NA	0.9310	NA	78.45	M	79.60	0.33	-1.00	-2.00	-2.00
99-0749-t	0.6720	-0.0010	NA	NA	-0.0150	NA	NA	0.2500	NA	81.88	M	78.40	0.86	-1.00	2.08	-2.00
99-1265-t	0.9693	0.0079	NA	NA	0.0420	NA	NA	0.4953	NA	73.45	MO	73.30	3.17	-1.00	4.37	-2.00
99-1264-t	1.7747	-0.0020	NA	NA	-0.0150	NA	NA	0.8655	NA	77.06	MO	76.80	0.55	-1.00	-2.00	-2.00
99-1263-t	0.5851	-0.0020	NA	NA	0.1040	NA	NA	0.4394	NA	77.69	MO	77.70	0.57	-1.00	-2.00	-2.00
99-1215-t	1.3151	-0.0020	NA	NA	0.0545	NA	NA	0.2566	NA	73.78	MO	75.10	3.82	-1.00	-2.00	-2.00
99-1214-t	0.7769	-0.0020	NA	NA	0.0941	NA	NA	0.3487	NA	76.47	MO	77.70	1.14	-1.00	-2.00	-2.00
99-1217-t	2.1609	-0.0020	NA	NA	0.0874	NA	NA	0.4087	NA	76.31	MO	77.40	0.75	-1.00	-2.00	-2.00
99-0765-t	3.0900	-0.0010	NA	NA	0.0561	NA	NA	0.3020	NA	78.42	M	78.50	0.26	-1.00	-2.00	-2.00
99-1260-t	0.3229	-0.0020	NA	NA	-0.0150	NA	NA	0.2483	NA	77.20	MO	77.70	0.91	-1.00	-2.00	-2.00
99-1262-t	1.0856	-0.0020	NA	NA	-0.0150	NA	NA	0.3142	NA	74.65	MO	75.40	4.36	-1.00	5.74	3.20
99-1259-t	0.8110	-0.0020	NA	NA	0.1074	NA	NA	0.2997	NA	77.10	MO	77.30	0.70	-1.00	-2.00	-2.00
00-0672-t	0.5954	-0.0020	NA	NA	0.0831	NA	NA	0.1948	NA	77.23	MO	77.20	1.25	-1.00	-2.00	-2.00
00-0673-t	0.6009	-0.0020	NA	NA	0.1019	NA	NA	0.3217	NA	76.62	MO	76.30	1.28	-1.00	-2.00	-2.00

Sample ID	acden_w ng/g	gcden_w ng/g	clpyr_w ng/g	dacth_w ng/g	dddop_w ng/g	dddpp_w ng/g	ddeop_w ng/g	ddepp_w ng/g	ddmupp_w ng/g	ddtop_w ng/g	ddtpp_w ng/g	diazn_w ng/g	dield_w ng/g	endo1_w ng/g	endo2_w ng/g	endos_w ng/g	endrn_w ng/g	ethion_w ng/g	hcha_w ng/g	hchb_w ng/g	hchd_w ng/g	hchg_w ng/g	hep_w ng/g	hepox_w ng/g	hcb_w ng/g
99-0532-t	-1.00	-1.00	-2.00	-2.00	-2.00	-2.00	-2.00	87.10	4.43	-3.00	-5.00	-20.00	-2.00	-2.00	-5.00	-20.00	-2.00	-10.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-1467-t	-1.00	-1.00	-2.00	-2.00	-2.00	-2.00	-2.00	15.80	-3.00	-3.00	-5.00	-20.00	-2.00	-2.00	NA	NA	-2.00	-6.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-1468-t	-1.00	-1.00	-2.00	-2.00	-2.00	4.42	-2.00	117.00	7.41	-3.00	-5.00	-20.00	-2.00	-2.00	NA	NA	-2.00	-6.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-0821-t	-1.00	-1.00	-2.00	-2.00	-2.00	3.13	-2.00	92.30	8.96	-3.00	-5.00	-20.00	2.71	-2.00	-5.00	-20.00	-2.00	-10.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-0948-t	-1.00	-1.00	-2.00	-2.00	-2.00	-2.00	-2.00	38.70	-3.00	-3.00	-5.00	-20.00	-2.00	-2.00	-5.00	-20.00	-2.00	-10.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-0949-t	-1.00	-1.00	-2.00	-2.00	-2.00	-2.00	-2.00	18.50	-3.00	-3.00	-5.00	-20.00	-2.00	-2.00	-5.00	-20.00	-2.00	-10.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-1994-t	-1.00	-1.00	-2.00	-2.00	-2.00	-2.00	-2.00	27.10	-3.00	-3.00	-5.00	-20.00	-2.00	-2.00	NA	NA	-2.00	-6.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-1995-t	-1.00	-1.00	-2.00	-2.00	-2.00	11.50	2.11	172.00	9.32	-3.00	-5.00	-20.00	2.85	-2.00	NA	NA	-2.00	-6.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	0.34
99-1993-t	-1.00	-1.00	-2.00	-2.00	-2.00	-2.00	-2.00	40.20	-3.00	-3.00	-5.00	-20.00	-2.00	-2.00	NA	NA	-2.00	-6.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-0774-t	-1.00	-1.00	-2.00	-2.00	-2.00	-2.00	-2.00	9.79	-3.00	-3.00	-5.00	-20.00	-2.00	-2.00	-5.00	-20.00	-2.00	-10.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-0950-t	-1.00	-1.00	-2.00	-2.00	-2.00	-2.00	-2.00	47.70	3.72	-3.00	-5.00	-20.00	-2.00	-2.00	-5.00	-20.00	-2.00	-10.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-0951-t	-1.00	-1.00	-2.00	-2.00	-2.00	-2.00	-2.00	16.60	-3.00	-3.00	-5.00	-20.00	-2.00	-2.00	-5.00	-20.00	-2.00	-10.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-0952-t	-1.00	-1.00	-2.00	-2.00	-2.00	-2.00	-2.00	25.20	-3.00	-3.00	-5.00	-20.00	-2.00	-2.00	-5.00	-20.00	-2.00	-10.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-1998-t	-1.00	-1.00	-2.00	-2.00	-2.00	-2.00	-2.00	18.40	-3.00	-3.00	-5.00	-20.00	-2.00	-2.00	NA	NA	-2.00	-6.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-1996	-1.00	-1.00	-2.00	-2.00	-2.00	2.36	3.02	84.30	5.64	-3.00	-5.00	-20.00	-2.00	-2.00	NA	NA	-2.00	-6.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-0764-t	-1.00	-1.00	-2.00	-2.00	-2.00	3.21	-2.00	105.00	9.14	-3.00	-5.00	-20.00	-2.00	-2.00	-5.00	-20.00	-2.00	-10.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-0773-t	-1.00	-1.00	-2.00	-2.00	-2.00	-2.00	-2.00	3.93	-3.00	-3.00	-5.00	-20.00	-2.00	-2.00	-5.00	-20.00	-2.00	-10.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
00-0449-t	-1.00	-1.00	-2.00	-2.00	-2.00	-2.00	-2.00	34.50	-3.00	-3.00	-5.00	-20.00	-2.00	-2.00	NA	NA	-2.00	-6.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
00-0453-t	-1.00	-1.00	-2.00	-2.00	-2.00	-2.00	-2.00	22.30	-3.00	-3.00	-5.00	-20.00	-2.00	-2.00	NA	NA	-2.00	-6.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-0729-t	-1.00	-1.00	-2.00	-2.00	-2.00	-2.00	-2.00	8.76	-3.00	-3.00	-5.00	-20.00	-2.00	-2.00	-5.00	-20.00	-2.00	-10.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-0730-t	-1.00	-1.00	-2.00	-2.00	-2.00	-2.00	-2.00	12.60	-3.00	-3.00	-5.00	-20.00	-2.00	-2.00	-5.00	-20.00	-2.00	-10.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-1268-t	-1.00	-1.00	-2.00	-2.00	-2.00	-2.00	-2.00	27.50	-3.00	-3.00	-5.00	-20.00	-2.00	-2.00	NA	NA	-2.00	-6.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-1269-t	-1.00	-1.00	-2.00	-2.00	-2.00	7.38	-2.00	113.00	5.21	-3.00	-5.00	-20.00	-2.00	-2.00	NA	NA	-2.00	-6.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-1266-t	-1.00	-1.00	-2.00	-2.00	-2.00	-2.00	-2.00	25.40	-3.00	-3.00	-5.00	-20.00	-2.00	-2.00	NA	NA	-2.00	-6.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-0725-t	-1.00	-1.00	-2.00	-2.00	-2.00	-2.00	-2.00	17.60	-3.00	-3.00	-5.00	-20.00	-2.00	-2.00	-5.00	-20.00	-2.00	-10.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-0749-t	-1.00	-1.00	-2.00	-2.00	-2.00	12.60	-2.00	177.00	7.00	-3.00	-5.00	-20.00	-2.00	-2.00	-5.00	-20.00	-2.00	-10.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-1265-t	-1.00	-1.00	-2.00	-2.00	2.98	20.70	-2.00	239.00	9.33	-3.00	-5.00	-20.00	-2.00	-2.00	NA	NA	-2.00	-6.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-1264-t	-1.00	-1.00	-2.00	-2.00	-2.00	3.76	-2.00	49.30	-3.00	-3.00	-5.00	-20.00	-2.00	-2.00	NA	NA	-2.00	-6.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-1263-t	-1.00	-1.00	-2.00	-2.00	-2.00	-2.00	-2.00	46.50	-3.00	-3.00	-5.00	-20.00	-2.00	-2.00	NA	NA	-2.00	-6.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-1215-t	-1.00	-1.00	-2.00	-2.00	-2.00	5.22	2.21	175.00	11.90	-3.00	-5.00	-20.00	-2.00	-2.00	NA	NA	-2.00	-6.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-1214-t	-1.00	-1.00	-2.00	-2.00	-2.00	-2.00	-2.00	49.10	4.21	-3.00	-5.00	-20.00	-2.00	-2.00	NA	NA	-2.00	-6.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-1217-t	-1.00	-1.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-3.00	-3.00	-5.00	-20.00	-2.00	-2.00	NA	NA	-2.00	-6.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-0765-t	-1.00	-1.00	-2.00	-2.00	-2.00	-2.00	-2.00	13.50	-3.00	-3.00	-5.00	-20.00	-2.00	-2.00	-5.00	-20.00	-2.00	-10.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-1260-t	-1.00	-1.00	-2.00	-2.00	-2.00	2.70	-2.00	22.90	-3.00	-3.00	-5.00	-20.00	-2.00	-2.00	NA	NA	-2.00	-6.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
99-1262-t	-1.00	-1.00	-2.00	-2.00	5.54	20.20	3.83	229.00	14.50	-3.00	-5.00	-20.00	-2.00	-2.00	NA	NA	-2.00	-6.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	0.31
99-1259-t	-1.00	-1.00	-2.00	-2.00	-2.00	-2.00	-2.00	67.40	3.25	-3.00	-5.00	-20.00	-2.00	-2.00	NA	NA	-2.00	-6.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
00-0672-t	-1.00	-1.00	-2.00	-2.00	-2.00	3.51	-2.00	125.00	9.35	-3.00	-5.00	-20.00	2.70	-2.00	NA	NA	-2.00	-6.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30
00-0673-t	-1.00	-1.00	-2.00	-2.00	-2.00	-2.00	-2.00	92.40	8.10	-3.00	-5.00	-20.00	-2.00	-2.00	NA	NA	-2.00	-6.00	-1.00	-2.00	NA	-1.00	-2.00	-1.00	-0.30

Santa Ana Region 8
2001 WQA/303 D List Update
Supporting Data
Anaheim Bay
Page 8 of 16

Sample ID	mthox_w ng/g	mirex ng/g	CNONA_W ng/g	TNONA_W ng/g	oxadzn_w ng/g	ocdan_w ng/g	epara_w ng/g	mpara_w ng/g	tetra_w ng/g	toxap_w ng/g	pcb1248_w ng/g	pcb1254_w ng/g	pcb1260_w ng/g
99-0532-t	-10.00	-3.00	-2.00	2.84	-6.00	-1.00	-8.00	-6.00	-4.00	-50.00	-50.00	63.00	-10.00
99-1467-t	-5.00	-3.00	-2.00	-1.00	-3.00	-1.00	-2.00	-4.00	-2.00	-20.00	-50.00	12.00	-10.00
99-1468-t	-5.00	-3.00	-2.00	3.05	-3.00	-1.00	-2.00	-4.00	-2.00	-20.00	-50.00	75.00	10.00
99-0821-t	-10.00	-3.00	-2.00	1.84	-6.00	-1.00	-8.00	-6.00	-4.00	-50.00	-50.00	53.30	-10.00
99-0948-t	-10.00	-3.00	-2.00	1.05	-6.00	2.76	-8.00	-6.00	-4.00	-50.00	-50.00	28.30	-10.00
99-0949-t	-10.00	-3.00	-2.00	-1.00	-6.00	1.72	-8.00	-6.00	-4.00	-50.00	-50.00	-10.00	-10.00
99-1994-t	5.92	-3.00	-2.00	-1.00	-3.00	-1.00	-2.00	-4.00	-2.00	-20.00	-50.00	19.00	-10.00
99-1995-t	-5.00	-3.00	2.81	5.64	-3.00	-1.00	-2.00	-4.00	-2.00	-20.00	-50.00	86.00	11.00
99-1993-t	-5.00	-3.00	-2.00	-1.00	-3.00	-1.00	-2.00	-4.00	-2.00	-20.00	-50.00	21.00	-10.00
99-0774-t	-10.00	-3.00	-2.00	-1.00	-6.00	-1.00	-8.00	-6.00	-4.00	-50.00	-50.00	-10.00	-10.00
99-0950-t	-10.00	-3.00	-2.00	2.25	-6.00	6.19	-8.00	-6.00	-4.00	-50.00	-50.00	31.00	-10.00
99-0951-t	-10.00	-3.00	-2.00	1.70	-6.00	5.54	-8.00	-6.00	-4.00	-50.00	-50.00	-10.00	-10.00
99-0952-t	-10.00	-3.00	-2.00	1.49	-6.00	1.21	-8.00	-6.00	-4.00	-50.00	-50.00	16.00	-10.00
99-1998-t	-5.00	-3.00	-2.00	-1.00	-3.00	-1.00	-2.00	-4.00	-2.00	-20.00	-50.00	14.30	-10.00
99-1996	-5.00	-3.00	-2.00	1.42	-3.00	-1.00	-2.00	-4.00	-2.00	-20.00	-50.00	82.00	-10.00
99-0764-t	-10.00	-3.00	-2.00	2.06	1.56	-1.00	14.60	-6.00	-4.00	-50.00	-50.00	45.00	-10.00
99-0773-t	-10.00	-3.00	-2.00	-1.00	-6.00	-1.00	-8.00	-6.00	-4.00	-50.00	-50.00	-10.00	-10.00
00-0449-t	-5.00	-3.00	-2.00	-1.00	-3.00	-1.00	-2.00	-4.00	-2.00	-20.00	-50.00	23.00	-10.00
00-0453-t	-5.00	-3.00	-2.00	1.48	-3.00	-1.00	-2.00	-4.00	-2.00	-20.00	-50.00	-10.00	-10.00
99-0729-t	-10.00	-3.00	-2.00	-1.00	-6.00	-1.00	-8.00	-6.00	-4.00	-50.00	-50.00	-10.00	-10.00
99-0730-t	-10.00	-3.00	-2.00	-1.00	-6.00	-1.00	-8.00	-6.00	-4.00	-50.00	-50.00	-10.00	-10.00
99-1268-t	-5.00	-3.00	-2.00	-1.00	-3.00	-1.00	-2.00	-4.00	-2.00	-20.00	-50.00	14.00	-10.00
99-1269-t	-5.00	-3.00	-2.00	3.48	-3.00	-1.00	-2.00	5.03	-2.00	-20.00	-50.00	39.00	-10.00
99-1266-t	-5.00	-3.00	-2.00	-1.00	-3.00	-1.00	-2.00	-4.00	-2.00	-20.00	-50.00	14.00	-10.00
99-0725-t	-10.00	-3.00	-2.00	-1.00	-6.00	-1.00	-8.00	-6.00	-4.00	-50.00	-50.00	-10.00	-10.00
99-0749-t	-10.00	-3.00	-2.00	5.33	-6.00	-1.00	-8.00	-6.00	-4.00	-50.00	-50.00	48.00	-10.00
99-1265-t	-5.00	-3.00	3.37	8.20	-3.00	1.11	-2.00	-4.00	-2.00	-20.00	-50.00	80.00	14.00
99-1264-t	-5.00	-3.00	-2.00	1.34	-3.00	-1.00	-2.00	-4.00	-2.00	-20.00	-50.00	11.00	-10.00
99-1263-t	-5.00	-3.00	-2.00	1.34	-3.00	-1.00	-2.00	-4.00	-2.00	-20.00	-50.00	30.00	-10.00
99-1215-t	-5.00	-3.00	-2.00	2.53	-3.00	-1.00	-2.00	-4.00	2.50	-20.00	77.00	140.00	15.00
99-1214-t	-5.00	-3.00	-2.00	-1.00	-3.00	-1.00	-2.00	-4.00	-2.00	-20.00	-50.00	34.00	-10.00
99-1217-t	-5.00	-3.00	-2.00	-1.00	-3.00	-1.00	-2.00	-4.00	-2.00	-20.00	-50.00	17.00	-10.00
99-0765-t	-10.00	-3.00	-2.00	-1.00	-6.00	-1.00	-8.00	-6.00	-4.00	-50.00	-50.00	-10.00	-10.00
99-1260-t	-5.00	-3.00	-2.00	1.49	-3.00	-1.00	-2.00	-4.00	-2.00	-20.00	-50.00	28.00	-10.00
99-1262-t	-5.00	-3.00	5.89	10.20	-3.00	1.20	-2.00	11.00	-2.00	-20.00	-50.00	160.00	18.00
99-1259-t	-5.00	-3.00	-2.00	2.37	-3.00	-1.00	-2.00	-4.00	-2.00	-20.00	-50.00	49.00	-10.00
00-0672-t	-5.00	-3.00	-2.00	2.30	-3.00	-1.00	-2.00	-4.00	-2.00	-20.00	-50.00	105.00	-10.00
00-0673-t	-5.00	-3.00	-2.00	1.74	-3.00	-1.00	-2.00	-4.00	-2.00	-20.00	-50.00	52.00	-10.00

3. Huntington Harbour:

- Beneficial Uses: NAV, REC 1, REC 2, COMM, WILD, RARE, SPWN, MAR
- Hydrologic Unit: 801.11
- Total Water Body Size: 150 acres
- Size Impaired: Unknown at this time
- Extent of Impairment: Unknown at this time
- Data Analyses:
  Orange County PFRD data:
  - 0/4 exceeded the "EBE 4-Day Average" Cd standard of 9.3 ug/L
  - 0/4 exceeded the "EBE 4-Day Average" Cr standard of 50 ug/L
  - 4/4 exceeded the "EBE 4-Day Average" Cu standard of 3.1 ug/L
  - 0/4 exceeded the "EBE 4-Day Average" Pb standard of 8.1 ug/L
  - 3/4 exceeded the "EBE 4-Day Average" Ni standard of 8.2 ug/L
  - 0/4 exceeded the "EBE 4-Day Average" Zn standard of 81 ug/L

Huntington Harbor at Edinger Street

- Data Analyses:
  Statewide Mussel Watch data:
  - 2/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Dieldrin standard of 0.7 ug/kg
  - 2/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" total PCB standard of 5.3 ug/kg
  - 1/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" toxaphene standard of 9.8 ug/kg
  - 0/2 exceeded the FDA Hg standard of 1.0 ppm wet weight
  - 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Aldrin standard of 0.33 ug/kg
  - 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Endosulfan I standard of 64,800 ug/kg
  - 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Endosulfan II standard of 64,800 ug/kg
  - 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Endosulfan Sulfate standard of 64,800 ug/kg
  - 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" alpha HCH standard of 1.7 ug/kg
  - 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" beta HCH standard of 6.0 ug/kg

- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" gamma HCH standard of 8.2 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" helptachlor standard of 2.3 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" heptachlor epoxide standard of 1.2 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" heptachlorobenzene standard of 6.7 ug/kg

Huntington Harbor at Warner Ave. Bridge

- Data Analyses:

State Wide Mussel Watch Data

- 2/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Dieldrin standard of 0.7 ug/kg
- 1/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" toxaphene standard of 9.8 ug/kg
- 2/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" total PCB standard of 5.3 ug/kg
- 0/2 exceeded the FDA Hg standard of 1.0 ppm wet weight
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Aldrin standard of 0.33 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Endosulfan I standard of 64,800 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Endosulfan II standard of 64,800 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" Endosulfan Sulfate standard of 64,800 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" alpha HCH standard of 1.7 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" beta HCH standard of 6.0 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" gamma HCH standard of 8.2 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" helptachlor standard of 2.3 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" heptachlor epoxide standard of 1.2 ug/kg
- 0/2 exceeded the "MTRLs in Enclosed Bays and Estuaries" heptachlorobenzene standard of 6.7 ug/kg

Orange County PFRD data:

- 0/2 exceeded the "EBE 4-Day Average" Cd standard of 9.3 ug/L
- 0/2 exceeded the "EBE 4-Day Average" Cr standard of 50 ug/L
- 2/2 exceeded the "EBE 4-Day Average" Cu standard of 3.1 ug/L
- 0/2 exceeded the "EBE 4-Day Average" Pb standard of 8.1 ug/L
- 1/2 exceeded the "EBE 4-Day Average" Ni standard of 8.2 ug/L
- 0/2 exceeded the "EBE 4-Day Average" Zn standard of 81 ug/L

- Potential Sources: Urban runoff

- Recommendation: More monitoring due to not enough data points available per parameter to reach a conclusion for impairment and insufficient data to back up results. Water Quality Assessment study currently underway.

- TMDL Priority: None at this time

- TMDL Start Date: Not applicable at this time

- TMDL End Date: Not applicable at this time

Date # Days Posted

BEACH NAME	SOURCE OF DATA	# OF posting ~~CLOSURES~~	REASON FOR ~~CLOSURE~~ Posting	~~HEAL THE BAY GRADE~~	RECOMMENDATION
Hunt. St. Bch. SLGT #6	OCHCA	9.6.99		1	
		10.24.99		2	
Hunt. St/G Beach- Magnolia to Ute Pier		9.16.99		1	
Hunt. City Bch. Dog Beach		11.26.99		8 ★	
Hunt. Harbor Coral Clay		12.9.99		4	
(Beach)		1.2.00		2	
(Beach)		2.8.01		2	
Hunt. City Beach Bluffs		12.20.99		1	
		3.17.00		2	
		4.14.00		5	

BEACH NAME	SOURCE OF DATA	# OF ~~CLOSURES~~ Posting Date	REASON FOR ~~CLOSURE~~ Posting	~~HEAL THE BAY GRADE~~ # Days Posted	RECOMMENDATION
Hunt. City Bch. 17th St.	OCHCA	12.20.99		1	
		9.15.00		2	
		10.1.00		2	
Hunt. Harb. 11th St. Beach		12.23.99		6	
		3.21.00 4.21.00		3 2	
		10.12.00		54 ☆	
		12.12.00		2	
		12.21.00		80 ☆	
		6.1.01		6	
Hunt St. Bch. Brookhurst St.		1.18.00		3	
		3.19.00		2	
		3.26.00		10 ☆	
		4.7.00		16 ☆	

Date # of Days Posted

BEACH NAME	SOURCE OF DATA	# OF ~~CLOSURES~~ Posting	REASON FOR ~~CLOSURE~~ Posting	~~HEAL THE BAY GRADE~~	RECOMMENDATION
Hunt. St. Bch. Brookhurst St	OCHCA	5.3.00		9 ★	
		6 1.00		1	
		9.3.00		2	
		9.17.00		5	
		9.27.00		2	
		11.8.00		7 ★	
		11.16.00		1	
		11.27.00		2	
		12.10.00		4	
		1.7.01		11 ★	
		2.2.01		6	
		7.24.01		1	
		8.1.01		1	
		8.16.01		3	
		8.29.01		1	

BEACH NAME	SOURCE OF DATA	Date # OF ~~Posting CLOSURES~~	REASON FOR ~~CLOSURE~~ Posting	# of Days Posted ~~HEAL THE BAY GRADE~~	RECOMMENDATION
Hunt. City Beach Jacks Snack Bar	OCHCA	1.19.00		2	
		6.23.01		2	
Hunt. St. Bch. Magnolia st.		3.22.00		2	
		4.16.00		12 ✱	
		4.30.00		26 ✱	
		5.31.00		1	
		6.4.00		2	
		6.13.00		6	
		6.23.00		19 ✱	
		8.17.00		1	
		11.14.00		2	
		4.20.01		1	
		5 9.01		2	
		6.3.01		8 ✱	
		7 4.01		4	
		7.10.01		1	
		7.20.01		1	
		8.2.01		1	

~~6~~ 3+ 6 13

BEACH NAME	SOURCE OF DATA	# OF ~~CLOSURES~~ Postings	REASON FOR ~~CLOSURE~~ Posting	# of Days Posted ~~HEAL THE BAY GRADE~~	RECOMMENDATION
Hunt. St. Bch. SCE Plant	OCHCA	4.5.00		2	
Hunt. St/City Bch. SAR - CLGT #11 (3N)		9.7.99		30 ★	
Hunt City Bch. CLGT #9		9.10.99		1	
Hunt. City Bch. 150' D/C CLGT #	1-CLGT #6	9 10.99		1	
Hunt. City Bch. CLGT #1		9.15 99		1	
		9.27.99		1	
Hunt. City Bch. CLGT #11 - Pier	(increase)	9.12.99		3	
Hunt. St. Bch. - SLGT #2		10-15.99		1	
		12.20.99		4	

BEACH NAME	SOURCE OF DATA	Date # OF ~~Posting~~ ~~CLOSURES~~	REASON FOR ~~CLOSURE~~ Posting	# Days Posted ~~HEAL THE BAY GRADE~~	RECOMMENDATION
Hunt. St. Bch. – SLGT #2 – 6 (1N – 4N)	OCHCA	10.26.99		8	
Hunt. St. Bch. – SAR to 200 U/C (OCSD 8)		12.9.99		4	
Hunt. St. Bch. – SLGT #3		12.9.99		4	
		12.20.99		4	
Hunt. St. Bch – SLGT #7		12.18.99		2	
Hunt. St Bch – SLGT #4		12.20.99		1	
Hunt. St. Bch. – SAR to 300' U/C (OCSD 8)		12.30.99		5	
		10.6.00		2	
		12.17.01		3	

BEACH NAME	SOURCE OF DATA	DATES OF POSTINGS	REASON FOR POSTING	# OF DAYS POSTED	RI
Hunt. Harbor— Davenport Bch.	OCHCA	4.21.00	exceedences of ocean water contact sports std.	2	
		6.22.00		2	
		8.3.00		2	
		2.8.01		2	

Santa Ana Region 8
2001 WQA/303 D List Update
Supporting Data
Huntington Beach 57
Page 12 of 57

BEACH NAME	SOURCE OF DATA	DATES OF POSTINGS	REASON FOR POSTING	# OF DAYS POSTED	RI
Hunt. Harb.-	OCHCA	12.28.00	exceedences of ocean water contact sports std.	57 ~~[illegible]~~	
Admiralty Drive		3.29.01		2	
Channel					

BEACH NAME	SOURCE OF DATA	DATES OF POSTINGS	REASON FOR POSTING	# OF DAYS POSTED	RE
Hunt. Harb. –	OCHCA	4.17.00	exceedences of ocean water contact sports std.	2	
Peter's Landing					
Marina					
		5.25.00		43 ✱	
		7.18.00		7 ✱	
		7.12.01		7 ✱	
		8.2.01		14 ✱	
		8.30.01		5	

BEACH NAME	SOURCE OF DATA	DATES OF POSTINGS	REASON FOR POSTING	# OF DAYS POSTED	RE
Hunt. Harb.- Humboldt Bch.	OCHCA	2.8.01	exceedences of ocean water contact sports std.	2	
		6.14.01		2	
		7.26.01		2	

BEACH NAME	SOURCE OF DATA	DATES OF POSTINGS	REASON FOR POSTING	# OF DAYS POSTED	RI
Hunt. Harb–	OCHCA	5.25.00	exceedences of ocean water contact sports std.	6	
Sunset Aquatic					
" park		9.27.00		2	
" park		11.2/.00		3	
" park		11.16.00		2	
" marina		12.28.00		2	
" Marina		6.7.01		2	
" Marina		6.12.01		2	
" Marina		7.12.01		2	
" Marina		7.26.01		2	

BEACH NAME	SOURCE OF DATA	DATES OF POSTINGS	REASON FOR POSTING	# OF DAYS POSTED	RI
Hunt. Harb. -	OCHCA	7.4.00	exceedences of ocean water contact sports std.	3	
Sea Gate Lagun					
		7.18.00		2	
		5.8.01		3	

BEACH NAME	SOURCE OF DATA	DATES OF POSTINGS	REASON FOR POSTING	# OF DAYS POSTED	RE
Hunt. Harb. Clubhouse Marina	OCHCA	5.4.00	exceedences of ocean water contact sports std.	2	
		12.7.00		2	
		5.3.01		2	
		6.7.01		2	
		4.12.01		18 *	

BEACH NAME	SOURCE OF DATA	DATES OF POSTINGS	REASON FOR POSTING	# OF DAYS POSTED	RE
Hunt. Harb.–	OCHCA	3.29.01	exceedences of ocean water contact sports std.	2	
Hunt. Harb.		4.5.01		2	
Marina		6.21.01		2	
		8.16.01		2	

BEACH NAME	SOURCE OF DATA	DATES OF POSTINGS	REASON FOR POSTING	# OF DAYS POSTED	RI
Hunt. Harb- Anaheim Bay Gas Dock	OCHCA	3.29.01	exceedences of ocean water contact sports std.	2	
		8.16.01		2	

BEACH NAME	SOURCE OF DATA	DATES OF POSTINGS	REASON FOR POSTING	# OF DAYS POSTED	RE
Hunt. St. Bch. -	OCHCA	9.2.01	exceedences of ocean water contact sports std.	2	
150' U/C & D/C					
Magnolia St.					
(OCSD 6N)					

BEACH NAME	SOURCE OF DATA	DATES OF POSTINGS	REASON FOR POSTING	# OF DAYS POSTED	R
Hunt. St. Bch. -	OCHCA	8·17·01	exceedences of ocean water contact sports std.	2	
150' U/C + D/C		8·12·01		2	
of Beach Blvd.		8·15·01		1	
(OCSD 12N)		8·29·01		1	

BEACH NAME	SOURCE OF DATA	DATES OF POSTINGS	REASON FOR POSTING	# OF DAYS POSTED	RE[MARKS]
Hunt St Bch. - 150' U/C + D/C of 17th St, (OCSD 6N)	OCHCA	7.10.01	exceedences of ocean water contact sports std.	1	

BEACH NAME	SOURCE OF DATA	DATES OF POSTINGS	REASON FOR POSTING	# OF DAYS POSTED	RE
Hunt. St. Bch.-	OCHCA	7.8.01	exceedences of ocean water contact sports std.	3	
SAR to 300' U/C		8.23.01		1	
(OCSD 0)					

BEACH NAME	SOURCE OF DATA	DATES OF POSTINGS	REASON FOR POSTING	# OF DAYS POSTED	R
Hunt. Harb. – Harb. Chnl. @ Coral Cay	OCHCA	6.28.01	exceedences of ocean water contact sports std.	2	

BEACH NAME	SOURCE OF DATA	DATES OF POSTINGS	REASON FOR POSTING	# OF DAYS POSTED	RE
Hunt. St. Bch.	OCHCA		exceedences of ocean water contact sports std.		
1000' u/c of SAR					

BEACH NAME	SOURCE OF DATA	DATES OF POSTINGS	REASON FOR POSTING	# OF DAYS POSTED	RI
Hunt. Cty. Bch.- 500' U/C + D/C Dog Beach (OCSD 27N)	OCHCA	2.7.01	exceedences of ocean water contact sports std.	2.9.01	

BEACH NAME	SOURCE OF DATA	DATES OF POSTINGS	REASON FOR POSTING	# OF DAYS POSTED	RE
Hunt. Cty. Bch. -	OCHCA	11.15.00	exceedences of ocean water contact sports std.	2	
150' U/C + D/C		2.8.01		1	
Hunt. St.		6.29.01		2	
(OCSD 15N)					

BEACH NAME	SOURCE OF DATA	DATES OF POSTINGS	REASON FOR POSTING	# OF DAYS POSTED	RE
Hunt. St. Bch –	OCHCA	10.29.00	exceedences of ocean water contact sports std.	4	
500' U/C Beach		8.30.01		2	
Blvd. (OCSD 12N)					
TO SAR (OCSD8)					

BEACH NAME	SOURCE OF DATA	DATES OF POSTINGS	REASON FOR POSTING	# OF DAYS POSTED	R
Hunt. St. Bch. -	OCHCA	10.13.00	exceedences of ocean water contact sports std.	2	
500' U/C Magnolia					
to SAR (OCSD 3N)					
(OCSD 8)					

BEACH NAME	SOURCE OF DATA	DATES OF POSTINGS	REASON FOR POSTING	# OF DAYS POSTED	RI
Hunt. City Bch - 500' U/C LGT #24 - 500' D/C of 17th St (OCSD 27N) (OCSD 21N)	OCHCA	10·1·00	exceedences of ocean water contact sports std.	2	

BEACH NAME	SOURCE OF DATA	DATES OF POSTINGS	REASON FOR POSTING	# OF DAYS POSTED	RI
Hunt St. Bch.	OCHCA	9.8.00	exceedences of ocean water contact sports std.	7	
ISD U/C + D/C		9.27.00		4	
Newland (OCSD 9N)		10.6.00		2	
		10.11.00		2	
		6.6.01		1	
		6.19.01		6	
		8.28.01		1	

BEACH NAME	SOURCE OF DATA	DATES OF POSTINGS	REASON FOR POSTING	# OF DAYS POSTED	F
Hunt. St. Bch. -	OCHCA	8.29.00	exceedences of ocean water contact sports std.	6	
500' U/C Newland		4.8.01		7	
to 500' (OCSD 6N)		7.10.01		4	
D/C of Magnolia (OCSD 9N)		8.4.01		1	

BEACH NAME	SOURCE OF DATA	DATES OF POSTINGS	REASON FOR POSTING	# OF DAYS POSTED	RE
Hunt. City Bch. -	OCHCA	8.16.00	exceedences of ocean water contact sports std.	1	
500' U/C + D/C of					
Hunt St.					
(OCSD 15N)					

BEACH NAME	SOURCE OF DATA	DATES OF POSTINGS	REASON FOR POSTING	# OF DAYS POSTED	R
Hunt. City Bch. - CLGT # 15 (OCSD 12 N)	OCHCA	4.30.00	exceedences of ocean water contact sports std.	2	

BEACH NAME	SOURCE OF DATA	DATES OF POSTINGS	REASON FOR POSTING	# OF DAYS POSTED	RI
SAR-Warner Ave. (OCSD 8-39N)	OCHCA	4.19.00	exceedences of ocean water contact sports std.	4	
		3.26.00		10	

BEACH NAME	SOURCE OF DATA	DATES OF POSTINGS	REASON FOR POSTING	# OF DAYS POSTED	R
Hunt. Bch. - SAR (OCSD 0)	OCHCA	5.7.00	exceedences of ocean water contact sports std.	4	

1999-2001
POSTING LOG FOR AB411

only manual NOT comp'd

	DATE POSTED	AREA POSTED	DATE UNPOSTED	BACTERI TC	FC	
1	7/28/99	Doheny Beach - 250' U/C to 1000' D/C SJC (Ck. Release)	7/30/99	~	~	~
1	7/29/99	Newport Bay - 38th Street Beach	7/30/99	80	712	<10
2		Newport Bay - 43rd Street Beach	9/22/99 Long Term	500	>24192	31
3		Dana Point Harbor - Baby Beach (Buoy Line)	7/30/99	300	256	175
		Dana Point Harbor - Baby Beach (West End)	7/30/99	1100	408	173
4		Doheny Beach - North Beach	7/30/99	20	959	20
5		Huntington Harbour - Mother's Beach	8/3/99	20	419	134
6	7/30/99	Newport Beach - 52nd-53rd Street (OCSD 6S)	7/30/99	1700	1700	176
7		Doheny Beach - North Beach	8/6/99	20	959	20
1	8/3/99	Seal Beach - 8th Street	8/5/99	3000	3873	85
2	8/4/99	Dana Point Harbor - Baby Beach (Swim Area)	8/6/99	500	573	20
3	8/5/99	Newport Bay - Abalone Avenue (South Bayfront)	8/7/99	800	801	74
4		Newport Bay - Bayshore Beach	8/7/99	<20	31	185
5		Newport Bay - Newport Dunes (North Beach)	8/7/99	300	1631	10
6	8/9/99	Bolsa Chica State Beach -SLGT #18 (OCSD 33N)	8/12/99	500	300	128
7	8/10/99	Salt Creek Beach - D/C of Salt Creek	8/12/99	3000	146	158
8		Doheny Beach - North Beach	8/12/99	40	1134	31
9		Dana Point Harbor - Baby Beach (East End)	8/12/99	500	601	52
1	8/11/99	Newport Bay - Newport Dunes (North Beach)(Ck. Release)	8/13/99	~	~	~
10	8/12/99	South Laguna - Three Arch Bay (AWMA S3)	8/13/99	96	<2	110
11	8/13/99	Seal Beach - 1st Street	8/15/99	2400	1785	<10
12	8/17/99	Newport Bay - Newport Dunes (North Beach)	8/24/99	230	441	10
13	8/18/99	Salt Creek Beach - D/C of Salt Creek	8/20/99	1700	63	173
14	8/24/99	Bolsa Chica State Beach - SLGT #23 (OCSD 39N)	8/26/99	500	500	142
15	8/26/99	Dana Point Harbor - Baby Beach (All) (West End)	8/28/99	170	259	160
		Dana Point Harbor - Baby Beach (Swim Area)	~	230	882	10
2	8/27/99	Doheny Beach - 300' U/C to 1500' D/C SJC (Ck. Release)	9/1/99	~	~	~
16	8/31/99	Bolsa Chica State Beach - SLGT#23 (OCSD 39N)	9/1/99	230	230	112
1	9/1/99	Doheny Beach - South End of Campground (SERRA S5)	9/3/99	10	20	110
2		Newport Bay - 19th Street Beach	9/3/99	80	209	110
1	9/2/99	Doheny Beach - 300' U/C to 1500' D/C SJC (Ck. Release)	9/4/99	~	~	~
3		Dana Point Harbor - Baby Beach (West End)	9/4/99	1300	1722	41
4	9/4/99	Huntington State Beach - SLGT #15 (OCSD 11N)	9/4/99	300	594	<10
5	9/6/99	Huntington State Beach - SLGT #6 (OCSD 4N)	9/7/99	9000	17328	168
6	9/7/99	Huntington State/City Beach - SAR to CLGT #11 (3N)	*10/7/99	5000	340	215
		*9/17/99 - unposted CLGT #11-CLGT #15 (4N)	~	LA	LA	358
		*10/6/99 - unposted CLGT #15-SLGT #10 (5N)	~	LA	LA	128
		*10/7/99 - unposted SLGT #10-SAR (7N)	~	170	170	118
		(8N)	~	300	80	104

		(10N)	~	300	1	
		(11N)	~	300	1	
2	9/8/99	Doheny Beach - 300' U/C to 1000' D/C SJC (Ck. Release)	9/10/99	~	~	~
7	9/9/99	Doheny Beach - End of day use area (SERRA S7)	9/10/99	3700	3000	>2000
8		Poche Beach - U/C of Poche Creek (SERRA S15)	9/10/99	460	110	110
3		Doheny Beach - 300' U/C to 1500' D/C SJC (Ck. Release)	9/10/99	~	~	~
9	9/10/99	Huntington City Beach - CLGT #9 (OCSD 15N)	9/11/99	130	197	2098
10		Huntington City Beach - 150' D/C CLGT #1-CLGT #6 (15N)	9/11/99	<20	40	512
		(18N)	~	<20	<10	113
		(19N)	~	<20	20	1585
E	9/12/99	Huntington City Beach - CLGT #11 - Pier (increase) (16N)	9/15/99	20	20	>400
11	9/14/99	Newport Bay - 19th Street Beach	9/17/99	800	1187	573
12	9/15/99	Huntington City Beach - CLGT #1	9/16/99	<20	<10	158
4		Doheny Beach - 250" U/C to 1000' D/C SJC (Ck. Release)	9/17/99	~	~	~
13	9/16/99	Doheny Beach - SLGT #7 (SERRA S5)	10/7/99	50	50	130
14		Dana Point Harbor - Baby Beach (Swim Area)	9/19/99	130	408	10
-16	(needles)	Huntington State/City Beach - Magnolia to U/C of Pier	9/17/99	~	~	~
15	9/22/99	Dana Point Harbor - Baby Beach (Buoy Line)	9/28/99	300	959	31
16	9/23/99	Newport Bay - 38th Street Beach	10/27/99	20	594	<10
17	9/24/99	Aliso Beach - Camel Point to 300' U/C (AWMA S8)	9/30/99	14	8	110
18		Doheny Beach -SLGT #9 to 300' D/C (SERRA S1)	10/7/99	10	10	30
19		Doheny Beach - SLGT #6 (SERRA S3)	10/7/99	80	80	400
20	9/27/99	Poche Beach - U/C of Poche Creek (SERRA S15)	9/28/99	780	170	170
5		Aliso Beach-1000' U/C to 1000' D/C of Creek (Ck.Release)	*10/7/99	~	~	~
		*9/30/99 - reduced posting to 1000' U/C	~	~	~	~
21		Huntington City Beach - CLGT # 1 (OCSD 18N)	9/28/99	300	74	135
6	9/28/99	Doheny Beach - 250" U/C to 1000' D/C SJC (Ck. Release)	*10/7/99	~	~	~
		*9/30/99 - extended posting to 3500' D/C (see 9/24/99)	~	~	~	~
		*10/1/99 - reduced D/C 500'	~	~	~	~
22		Laguna Beach - Main Beach at Broadway Creek	9/30/99	230	52	134
23		Monarch Beach - 300' U/C of Salt Creek	9/30/99	230	41	109
24	9/29/99	Newport Bay - Sapphire Avenue	10/1/99	40	3076	413
1	10/1/99	Poche Beach - 300' U/C to 100' D/C of Poche Creek	10/7/99	700	120	120
2	10/7/99	Doheny Beach - 150' U/C SLGT #7 to 150'D/C SLGT #6	*10/8/99(S5	1100	670	960
		(SERRA S5 & S7) *all Doheny posted	~ (S7	780	670	960
E	10/8/99	Doheny Beach - San Juan Creek to Poche Creek	*10/14/99(S1	160	60	300
		*10/9/99 -reopened San Juan Ck to end of campground	~ (S3	440	330	670
		*10/14/99-reopened end of campground to end of park	~ (S9	260	270	530
		*10/14/99-reopened Poche	~ (S11	390	130	330
			~ (S13	350	230	200
3	10/10/99	Bolsa Chica State Beach - SLGT #23 (OCSD 39N)	10/13/99	1100	1100	>400
4	10/13/99	Laguna Beach - 1000 Steps Beach (AWMA S4)	10/14/99	2	<2	280

5	10/14/99	Dana Point Harbor - Baby Beach (Buoy Line)	see 10/27/99	80	78	
1		Doheny Beach - 250' U/C to 1000' D/C SJC (Ck. Release)	see 10/15/99	~	~	
6	10/15/99	Huntington State Beach - SLGT #2 (OCSD 1N)	10/16/99	130	13[illegible]	[illegible]
7		Newport Bay - 19th Street Beach	10/21/99	700	135	145
8		Newport Bay - Bayshore Beach	10/21/99	1300	644	391
E		Dana Point Harbor -Baby Beach (Swim Area)	see 10/27/99	500	520	98
9		Doheny Beach - 1000' - 3000' D/C of San Juan Creek	see 10/29/9(S1)	150	120	270
2		*10/18/99 - 250' U/C - 1000' D/C SJC closed (sewage)	see 10/22/99(S3)	90	70	160
		Creek Release	~ (S9)	150	140	270
10	10/21/99	Seal Beach - 1st Street	11/10/99	20	784	31
11	10/22/99	Newport Beach - 52nd-53rd Street (OCSD 6S)	10/24/99	20	20	150
12		Aliso Beach - Aliso Creek to 300' D/C (AWMA S9)	see 10/28/99	30	<10	170
E		Doheny Beach - 250' U/C to 1000' D/C San Juan Creek	see 11/15/99(S0)	160	110	250
13	10/24/99	Huntington State Beach - SLGT #6 (OCSD 4N)	10/26/99	500	500	240
14	10/26/99	Huntington State Beach - SLGT #4 (OCSD 3N)	see 10/27/99	40	62	121
15		Newport Bay - Garnet Avenue	10/28/99	<20	52	211
E	10/27/99	Huntington State Beach (OCSD 1N - 4N) (1N)	*10/28/99	230	230	>400
		*4N unposted 11/3/99 (2N)	~	500	500	>400
		(3N)	~	500	500	>400
		(4N)	~	130	8	>400
16		Newport Beach - Little Corona	10/30/99	500	933	74
17		Newport Beach - Corona Del Mar Beach (OCSD 29S)	10/29/99	130	80	106
E		Dana Point Harbor - Baby Beach (All)	11/18/99 Long Term	~	~	~
E	10/28/99	Aliso Beach - 300' D/C Creek to Camel Point (SERRA S8)	10/29/99	190	120	170
E	10/29/99	Huntington State Beach-1N-3N (4N posted-see 10/27) (1N)	11/3/99	300	300	270
		(3N)	~	300	300	>400
18		Huntington Harbour - Mother's Beach	11/2/99	500	341	223
E		Doheny Beach - add 500' U/C SJC to 250' U/C SJC	10/30/99	30	70	110
E		Doheny Beach - add 3000' to 4000' D/C SJC (SERRA S5)	1/3/00 Long Term	310	420	456
		(SERRA S7)	1/3/00 Long Term	70	40	140
19		San Clemente - North Beach @ Ave. Pico (SERRA S17)	11/3/99	360	110	1100
1	11/1/99	Surfside-Sunset Beach - breakwater to 24th St. (Dredging)	11/10/99	20	20	221
2		Newport Bay - Newport Dunes (North Beach)	11/23/99	500	145	228
3	11/3/99	Capistrano Beach - Poche Beach (SERRA S15)	11/5/99	900	130	120
4	11/4/99	Huntington Harbour - Mother's Beach	*11/30/99	130	272	185
		*changed from posting to closure due to sewage spill	~	~	~	~
5		Huntington Harbour - Trinidad Beach	11/7/99	2400	31	833
6	11/7/99	Newport Beach - Balboa Pier (OCSD 21S)	11/9/99	300	300	184
1	11/8/99	Rain Advisory - All Coastline	11/12/99	~	~	~
7	11/9/99	Newport Beach - Corona Del Mar Beach (OCSD 29S)	11/11/99	110	40	150
E	11/15/99	(Doheny Beach - 250' U/C to 1000' D/C SJC - Closed)	see 11/21/99	~	~	~
		(1000' D/C SJC to end of Park still posted)	~	~	~	~

1999-2001
POSTING LOG FOR AB411

8	11/16/99	Laguna Beach - So. End of Main Beach (AWMA S16)	11/18/99	41		
9		Laguna Beach - No. End of Victoria Beach (AWMA S14)	11/18/99	18		
10		Laguna Beach - Treasure Island Pier (AWMA S12)	11/18/99	16	2	220
11		Laguna Beach - 1000 Steps Beach (AWMA S4)	11/18/99	20	8	>400
12	11/17/99	San Clemente State Beach - Ave. Calafia (SERRA S21)	11/18/99	Cw/c	320	>400
13		Doheny Beach - North Beach	11/20/99	300	223	397
14	11/18/99	Salt Creek Beach - So. End Ritz Cove (AWMA S2)	11/21/99	1300	66	130
E	11/21/99	Doheny Beach - North Beach	1/3/00 Long Term	80	185	231
E		Doheny Beach-250' U/C to 1000' D/C SJC(Posting from SS)	1/3/00 Long Term	~	~	~
15	11/23/99	Laguna Beach - No. End of Victoria Beach (AWMA S14)	11/27/99	27	10	100
16		Laguna Beach - Bluebird Canyon (AWMA S15)	11/27/99	410	80	170
17		Newport Beach - 15th-16th Street (OCSD 15S)	11/25/99	230	230	368
18		Newport Bay - Newport Dunes (East Beach)	11/25/99	130	97	110
19		Newport Bay - Newport Dunes (West Beach)	11/25/99	1300	586	495
20		Newport Bay - 10th Street Beach	11/25/99	5000	4611	884
21		Newport Bay - 19th Street Beach	11/25/99	1300	2851	1223
22		Newport Bay - 38th Street Beach	11/25/99	500	142	228
23		Newport Bay - V ia Genoa	11/25/99	40	31	155
24		Newport Bay - N Street Beach	11/25/99	800	563	74
25	11/24/99	Aliso Beach - 300' D/C Creek to Camel Point (SERRA S8)	11/27/99	Cw/c	160	160
26		Doheny Beach - Mid North Beach (SERRA S2)	1/3/00 Long Term	120	80	1900
27		San Clemente State Beach - Ave. Calafia (SERRA S21)	11/27/99	780	500	610
28		Laguna Beach - Emerald Bay	11/27/99	<20	10	156
29	11/26/99	Huntington City Beach - Dog Beach (OCSD 27N)	12/4/99	800	800	16
1	12/1/99	Capistrano Beach-150' U/C-150" D/C Poche (Ck.release)	12/8/99	~	~	~
1		Laguna Beach - Crescent Bay	12/3/99	110	20	169
2	12/2/99	Seal Beach - 8th Street	12/4/99	>16000	130	393
3	12/8/99	Laguna Beach - So. End Main Beach (AWMA S16)	12/10/99	160	90	190
4	12/9/99	Capistrano Beach - Guard Shack (SERRA S9)	12/15/99	350	170	420
		Capistrano Beach - Mid (SERRA S11)	12/15/99	190	90	320
		Capistrano Beach - End (SERRA S13)	12/15/99	80	80	170
5		Huntington Harbour - Coral Cay	12/13/99	3000	4352	1223
6		Huntington State Beach - SAR to 200' U/C (OCSD 0)	12/13/99	40	41	158
7		Huntington State Beach - SLGT #3 (OCSD 2N)	12/13/99	520	368	990
8	12/18/99	Huntington State Beach - SLGT #7 (OCSD 5N)	12/20/99	40	20	110
9	12/20/99	Huntington City Beach - Bluffs (OCSD #27N)	12/21/99	<20	<20	122
10		Huntington City Beach - 17th Street (OCSD #21N)	12/21/99	80	80	168
11		Huntington State Beach - SLGT #2 (OCSD 1N)	12/24/99	70	70	166
		Huntington State Beach - SLGT #3 (OCSD 2N)	12/24/99	170	170	298
		Huntington State Beach - SLGT #4 (OCSD 3N)	12/24/99	130	130	212
12		Newport Beach - 15th-16th Street (OCSD 15S)	12/21/99	130	130	180
13	12/21/99	Laguna Beach - So. End of Main Beach (AWMA S16)	12/22/09	190	86	150

14		Laguna Beach - So. End of Victoria Beach (AWMA S13)	12/24/99	130	11	
15		Capistrano Beach - Guard Shack (SERRA S9)	12/24/99	90	6(	
16	12/22/99	Laguna Beach - No.End of Victoria Beach (AWMA S14)	12/24/99	130	110	110
17		Laguna Beach - Bluebird Canyon (AWMA S15)	12/24/99	110	100	130
18		Dana Point - Dana Strand (AWMA S1)	12/24/99	Cw/c	>400	120
19	12/23/99	Aliso Beach - Camel Point to 300' upcoast (AWMA S8)	12/28/99	42	34	120
20		Huntington Harbour - 11th Street Beach	12/29/99	220	4396	1153
21	12/28/99	Newport Bay - Harbor Patrol Beach	12/30/99	230	857	354
22	12/30/99	Huntington State Beach - SAR to 300' U/C (OCSD 0)	1/4/00	<20	<20	180
	1999 Summary	Postings Rain Advisories Creek Releases Misc.				
	July 28-31	7 1				
	August	16 2				
	September	24 6 1				
	October	19 2				
	November	29 1				
	December	22 1				
	Totals	117 1 12 1				
1	1/4/00	Aliso Beach - Aliso Creek to 300' downcoast (AWMA S9)	1/5/00	6200	440	960
2		Laguna Beach - No. End of Victoria Beach (AWMA S14)	1/5/00	100	40	430
3	1/5/00	San Clemente - North Beach @ Pico Avenue (SERRA 17)	1/6/00	390	540	330
4		Newport Bay - Sapphire Avenue	1/7/00	20	10	121
5		Seal Beach - 1st Street (SGR to Neptune Ave. posted)	1/7/00	1300	52	388
		Seal Beach - 8th Street "	"	500	51	491
		Seal Beach - 14st Street "	"	40	<10	134
6	1/7/00	Newport Beach - Balboa Pier (OCSD 21S)	1/10/00	80	20	300
7	1/11/00	Newport Bay - Newport Dunes (West Beach)	1/13/00	40	41	122
8	1/18/00	Huntington State Beach - Brookhurst Street (OCSD 3N)	1/21/00	200	140	208
9		Newport Beach - Orange Avenue (OCSD 3S)	1/19/00	170	170	110
10	1/19/00	Huntington City Beach - Jack's Snack Bar (OCSD 21N)	1/21/00	40	40	112
11		Newport Beach - 15th - 16th Street (OCSD15S)	1/21/00	110	80	230
12		Newport Bay - Newport Dunes (Middle Beach)	1/21/00	130	97	1092
13		Newport Bay - Newport Dunes (North Beach)	1/21/00	500	496	31
14		Laguna Beach - So. End of Main Beach (AWMA S16)	1/21/00	400	330	1500
15		Laguna Beach - Bluebird Canyon (AWMA S15)	1/21/00	990	120	140
16		Laguna Beach - No. End of Victoria Beach (AWMA S14)	1/21/00	130	110	220
17		Laguna Beach - So. End of Victoria Beach (AWMA S13)	1/21/00	200	200	260
18		Aliso Beach - 300' to 600' So. Of Aliso Creek (AWMA 8.5)	1/21/00	70	80	130
19	1/20/00	Huntington Harbour - Trinidad Beach	1/22/00	1300	985	63
20		Huntington Harbour - Coral Cay Beach	1/22/00	170	345	10
21		Laguna Beach - Aliso Creek to 300' D/C (AWMA S9)	1/22/00	20	40	150

1999-2001
POSTING LOG FOR AB411

22		Capistrano Beach - 7500' D/C Outfall @ Capo. (SERRA S11)	1/22/00	90	7	
		Capistrano Beach - 10000' D/C Outfall @ Capo. (SERRA S13)	1/22/00	70	2	
		Capistrano Beach - Poche Beach (SERRA S15)	1/21/00	<100	400	80
23		San Clemente - North Beach @ Pico Avenue (SERRA 17)	1/21/00	360	380	250
24	1/22/00	Laguna Beach - North Main Beach	1/24/00	80	52	171
25		Dana Point - Salt Creek to 300' D/C of Salt Creek	1/24/00	220	108	110
1	1/25/00	Rain Advisory - All Coastline	2/2/00	~	~	~
1	2/9/00	Capistrano Beach - Guardshack (SERRA S9)	3/16/00	340	550	900
		Capistrano Bay District (SERRA S11)	2/10/00	460	400	430
		Poche Beach (SERRA S15)	2/10/00	170	160	240
1	2/10/00	Rain Advisory - All Coastline	2/16/00	~	~	~
2	2/17/00	Rain Advisory - All Coastline	2/27/00	~	~	~
3	2/28/00	Rain Advisory - All Coastline	3/13/00	~	~	~
1	3/14/00	Newport Beach - N Street Beach	3/16/00		8164	216
2		Laguna Beach - Bluebird Canyon (AWMA S15)	3/16/00	1900	60	240
3		Laguna Beach - Three Arch Bay (SERRA S3)	3/16/00	60	40	3200
4	3/15/00	Laguna Beach - Main Beach	3/17/00	9000	8164	12033
5		Laguna Beach - Treasure Island Pier	3/16/00	2400	121	228
6	3/17/00	Huntington Beach - Bluffs (OCSD 27N)	3/19/00	230	230	288
7		Dana Point - Capistrano County Beach	4/28/00		213	345
8	3/19/00	Huntington State Beach - Brookhurst Street (OCSD 3N)	3/21/00	500	300	396
		upcoast to Newland Street (OCSD 6N)	~	220	110	226
		(OCSD 9N)	~	170	110	126
9		Newport Beach - Corona Del Mar State Beach (OCSD 29S)	3/21/00	20	20	142
10	3/21/00	Huntington Harbour - 11th Street Beach	3/24/00	2400	262	776
11		Capistrano Bay District (SERRA S11)	3/25/00	200	70	250
		(SERRA S13)	~	40	40	110
12	3/22/00	Huntington State Beach - Magnolia Street (OCSD 3N)	3/24/00	500	300	>400
		downcoast to Brookhurst Street (OCSD 6N)	~	<20	<20	150
13		Newport Bay - Newport Dunes West	3/24/00	2400	465	98
14	3/26/00	Huntington State Beach - Santa Ana River (OCSD 0)	4/5/00	70	40	174
		upcoast to Brookhurst Street (OCSD 3N)	~	70	70	156
15	3/29/00	Seal Beach - San Gabriel River downcoast to 2nd Street	3/31/00	40	20	169
16	3/30/00	Laguna Beach - Bluebird Canyon (AWMA S15)	3/31/00	170	13	530
17		Capistrano Bay District (SERRA S11)	4/11/00	90	140	180
		(SERRA S13)	~	90	70	150
18		Newport Bay - Via Genoa	4/2/00	500	1145	1296
1	4/4/00	Newport Bay - Harbor Patrol Beach	4/8/00	800	1989	31
2		Laguna Beach - Bluebird Canyon (AWMA S15)	4/5/00	>2000	290	>2000
3	4/5/00	Huntington State Beach - SCE Plant (OCSD 9N)	4/7/00	300	230	194
4	4/7/00	Huntington State Beach - Brookhurst Street (OCSD 3N)	see 4/16/00	40	30	122
5	4/12/00	Dana Point - Monarch Beach North	4/14/00	2400	31	160

6	4/13/00	Huntington Harbour - Peter's Landing	4/15/00	1300	22	
7	4/14/00	Huntington City Beach - Bluffs (OCSD 27N)	4/19/00	40	4	
E	4/16/00	Huntington State Beach - Magnolia Street (OCSD 6N)	see 4/19/00	500	50	
E		Huntington State Beach - Brookhurst Street (OCSD 3N)	~	130	80	156
1	4/17/00	Rain Advisory - All Coastline	4/23/00	~	~	~
8	4/18/00	Newport Bay - 19th Street Beach	4/20/00	800	638	12997
9	4/19/00	SAR to Warner Avenue (OCSD O)	4/23/00	>16000	16000	>600
		(OCSD 3N)	4/23/00	>16000	3000	>600
	(RAIN	(OCSD 6N)	4/28/00	>16000	2200	>600
	EVENT)	(OCSD 9N)	4/23/00	>16000	5000	>400
		(OCSD 12N)	4/21/00	16000	3000	>400
		(OCSD 15N)	4/21/00	5000	2400	>400
		(OCSD 21N)	4/21/00	>16000	1300	>400
		(OCSD 27N)	4/21/00	9000	500	840
		√ (OCSD 33N)	4/21/00	16000	500	>400
		(OCSD 39N)	4/21/00	3000	500	390
10		Newport Beach - Big Corona Beach (OCSD 29S)	4/20/00	1700	800	384
11		Crystal Cove - Los Trancos (OCSD 39S)	4/20/00	16000	3000	>240
12		Laguna Beach - No. End of Victoria Beach (AWMA S14)	4/22/00	950	120	190
13		Aliso Beach - Pillar House (AWMA S10)	4/20/00	>20000	4500	10000
		Aliso Beach - Treasure Island South Ramp (AWMA S11)	4/20/00	13000	2500	5200
14	4/20/00	Crystal Cove - Muddy Creek	4/22/00	<20	<10	>24192
15		Crystal Cove - El Morro	4/22/00	5000	1010	<10
16	4/21/00	Huntington Harbour - Trinidad Beach	4/23/00	16000	545	<10
17		Huntington Harbour -Davenport Beach	4/23/00	9000	683	10
18		Huntington Harbour - 11th Street Beach	4/23/00	3000	405	20
19	4/22/00	Newport Bay - 19th Street Beach	4/25/00	>16000	1424	10
20	4/25/00	Newport Bay - Bayshore Beach	4/27/00	300	31	122
21		Newport Bay - Newport Dunes North	4/27/00	170	240	132
22	4/27/00	Seal Beach - 1st Street	5/2/00	80	20	85
		Seal Beach - 8th Street	4/29/00	500	722	500
23	4/30/00	Huntington City Beach - CLGT #15 (OCSD 12N)	5/2/00	300	230	240
24		Huntington State Beach - Magnolia Street (OCSD 6N)	See 5/18/00	300	300	316
1	5/2/00	Newport Bay - Newport Dunes North	5/12/00	170	1224	<10
2	5/3/00	Huntington State Beach - Brookhurst Street (OCSD 3N)	5/12/00	1300	1300	130
3		Laguna Beach - Bluebird Canyon (AWMA S15)	5/4/00	12	2	>400
4		Laguna Beach - Laguna Avenue (AWMA S16)	5/4/00	20	12	>400
5	5/4/00	Aliso Beach - Creek to 300' Downcoast (AWMA S9)	5/5/00	80	60	190
6		Huntington Harbour - Clubhouse Marina	5/6/00	3000	4106	10
7	5/7/00	Huntington State Beach - SAR (OCSD 0)	5/11/00	1300	800	138
8	5/9/00	Newport Bay - Newport Dunes East	5/11/00	230	41	228
9		Newport Bay - Garnet Avenue	5/11/00	500	145	428

10		Dana Point - Capistrano County Beach (SERRA S9)	5/11/00	400		
11		Poche Beach -150' U/C and 150' D/C of Creek (SERRA S15)	7/6/00	CF	2	
12	5/11/00	Laguna Beach - Bluebird Canyon (AWMA S15)	5/13/00	>400	>400	25
13		Seal Beach -1st Street	5/13/00	300	62	153
14	5/17/00	Capistrano County Beach (dredging)	5/26/00	~	~	~
15	5/18/00	Huntington State Beach-500' U/C & D/C Magnolia Street (OCSD 6N)	See 5/19/00	800	800	164
E	5/19/00	Huntington State Beach - 500' U/C Magnolia St. (OCSD 6N)	5/26/00	40	20	14
		to Santa Ana River (OCSD 3N)	5/26/00	130	130	164
		(OCSD 0)	5/24/00	300	170	196
16	5/21/00	Bolsa Chica State Beach - Reserve (OCSD 33N)	5/23/00	110	110	128
17	5/23/00	Newport Bay - Dunes West	5/28/00	500	798	<10
18		Newport Bay - Promontory Bay	5/28/00	3000	8164	41
19	5/24/00	Laguna Beach - Treasure Island Pier (AWMA S12)	5/25/00	550	32	30
20	5/25/00	Huntington Harbour - Sunset Aquatic	5/31/00	>16000	379	512
21		Huntington Harbour - Peter's Landing	7/7/00	>16000	382	131
22	5/31/00	Huntington State Beach - Magnolia Street (OCSD 6N)	6/1/00	130	130	116
1	6/1/00	Huntington State Beach - Brookhurst Street (OCSD 3N)	6/2/00	500	300	164
2		Newport Bay - Harbor Patrol Beach	6/12/00	700	933	313
3	6/4/00	Huntington State Beach - Magnolia Street (OCSD 6N)	6/6/00	500	500	192
4	6/6/00	Newport Bay - Abalone Avenue	6/8/00	>16000	195	556
5		Newport Bay - Newport Dunes North	6/8/00	170	909	278
6	6/7/00	Crystal Cove State Beach - Pelican Point	6/9/00	70	<10	187
7	6/8/00	San Clemente - Avenida Calafia (SERRA S21)	6/11/00	<2	<2	400
8	6/13/00	Huntington State Beach - Magnolia Street (OCSD 6N)	see 6/17/00	1700	1700	>400
9		Newport Bay - Rhine Channel	6/19/00	500	307	794
10		Newport Bay - Sapphire Avenue	6/15/00	1300	2489	<10
11	6/16/00	Dana Point Harbor - Baby Beach Swim Area	see 6/22/00	800	538	20
R		Doheny State Bch - SJC to end of pk (update from perm. List)	6/30/00	~	~	~
E	6/17/00	Huntington State Beach - 500' U/C & D/C Magnolia Street	6/19/00	3000	3000	>400
12	6/20/00	Newport Bay -Garnet Avenue	6/22/00	20	10	2489
13		Newport Dunes - North End	6/22/00	170	1211	52
14	6/22/00	Huntington Harbour - Davenport Beach	6/24/00	<20	<10	135
15		Newport Beach - Balboa Pier (OCSD 21S)	6/23/00	40	40	154
16		Aliso Beach - North End (AWMA S10)	6/24/00	130	8	120
E		Dana Point Harbor - Baby Beach Swim Area to West End	6/30/00	80	145	216
17	6/23/00	Huntington State Beach - Magnolia Street (OCSD 6N)	see 7/12/00	~	~	log mean
18	6/27/00	Newport Bay- Promontory Point	6/29/00	230	181	134
19		Newport Bay - Bayshore Beach	6/29/00	9000	20	110
20		Newport Bay - 38th Street Beach	6/29/00	265	1956	10
21	6/30/00	Laguna Beach - Treasure Island Pier (AWMA S12)	7/4/00	2	<2	400
1	7/4/00	Bolsa Chica State Beach - SLGT #23 (OCSD 39N)	7/5/00	140	140	222
2		Huntington Harbour - Sea Gate Lagoon	7/7/00	<20	<10	171

1999-2001
POSTING LOG FOR AB411

3		Laguna Beach - 1000 Steps (AWMA S4)	7/5/00	2		
4		Dana Point Harbor - Baby Beach West End	7/13/00	~		
5	7/5/00	Laguna Beach - Blue Lagoon (AWMA S13)	7/6/00	4	<2	214
6		Aliso Beach-150'U/C to 150' D/C of Creek (AWMA S8.5)	7/9/00	240	70	460
		150'D/C to 300' D/C of Aliso Ck (AWMA S9)	7/6/00	100	30	130
7	7/6/00	Newport Bay - Newport Dunes North	7/9/00	70	1223	295
8		Newport Bay - Park Avenue Balboa Island	7/8/00	500	171	119
9		Newport Bay - 38th Street Beach	8/24/00	16000	2359	305
10		Dana Point Harbor - Guest Dock	7/11/00	230	<10	122
11	7/11/00	Newport Bay - Newport Dunes Middle	7/13/00	20	<10	256
12		Newport Bay - Rhine Channel	7/13/00	500	447	122
13		Newport Bay - Park Avenue Balboa Island	7/13/00	230	52	108
14		Doheny State Beach - 300' at Mouth SJC (SERRA 0)	see 7/13/00	2000	2000	540
15		Poche Beach -150' U/C and 150' D/C of Creek (SERRA S15)	7/19/00	730	500	470
E	7/12/00	Huntington State/City Beach - 500' U/C (OCSD 6N)	8/13/00*	230	230	152
4		Huntington Street to 500' Downcoast (OCSD 9N)	*8/16/00	230	230	246
		Magnolia Street * (7/13/00-500' U/C (OCSD 12N)	7/13/00	2400	2400	>400
		Newland to 500' D/C Magnolia) (OCSD 15N)	7/13/00	230	230	322
16		Newport Beach - Little Corona	7/14/00	90	63	301
1	7/13/00	Doheny Beach - 250' U/C to 1000' D/C SJC (Ck. Release)	7/15/00	~	~	~
17	7/18/00	Huntington Harbour - Mother's Beach	7/20/00	90	754	201
18		Huntington Harbour - Sea Gate Lagoon	7/20/00	130	74	135
19		Huntington Harbour - Peter's Landing	7/25/00	121	52	121
20		Newport Bay - Newport Dunes North	9/8/00	20	1086	20
21		Aliso Beach - Aliso Creek to 300' D/C Creek (AWMA S9)	7/20/00	47	8	130
22	7/19/00	Dana Point - Salt Creek to 300' D/C of Creek (AWMA S2)	7/20/00	200	26	180
23		Dana Point Harbor - Baby Beach West End	7/28/00	700	1250	<10
		Baby Beach Buoy Line	7/26/00	300	450	<10
24	7/20/00	Aliso Beach - Aliso Creek to 300' D/C Creek (AWMA S9)	7/23/00	47	8	130
25	7/23/00	Newport Beach - 38th Street (OCSD 9S)	7/25/00	<2	<2	272
26	7/25/00	Newport Bay - Lido Isle Yacht Club	7/27/00	230	<10	1137
27		Newport Bay - 15th Street Beach	7/29/00	1300	536	74
28		Aliso Beach - Aliso Creek to 300' D/C Creek (AWMA S9)	7/26/00	6	4	160
29	7/26/00	Doheny Beach - San Juan Creek to 300' D/C	7/28/00	110	<10	238
30	7/27/00	Laguna Beach - 1000 Steps (AWMA S4)	7/28/00	2	<2	>400
31		Monarch Beach - 300' U/C of Salt Creek	7/29/00	900	110	240
32	7/28/00	Doheny State Beach-150' U/C & 150'D/C SLGT#7 (SERRA S5)	7/29/00	250	120	600
1	8/1/00	Doheny Beach - 250' U/C to 1000' D/C of SJC (Ck.Release)	8/2/00	~	~	~
1		Dana Point - Capistrano County Beach to 500' (SERRA S9)	8/4/00	80	20	110
		D/C of Poche Creek (SERRA S11)	8/4/00	130	60	210
R		Poche Beach (8/4/00 150' U/C-150' D/C Creek) (SERRA S15)	9/21/00	1180	410	600
2		Newport Bay - Abalone Avenue	8/3/00	<20	41	119

3	8/3/00	Huntington Harbour - Mother's Beach	8/5/00	20	1	
4		Huntington Harbour - Davenport Beach	8/5/00	2400		
5		Aliso Beach - North End (AWMA S11)	8/4/00	50	28	140
6	8/8/00	Newport Bay - Bayshore Beach	8/18/00	5000	20	896
7	8/16/00	Huntington City Bch-500'U/C & D/C of Huntington St (OCSD 15N)	8/17/00	800	20	>400
8		Dana Point Harbor - West End Baby Beach	8/18/00	230	932	<10
9	8/17/00	Bolsa Chica State Beach - SLGT#23 (OCSD 39N)	8/18/00	40	40	162
10		Huntington State Beach - Magnolia Street (OCSD 6N)	8/18/00	130	130	106
11		Doheny State Beach - DPH Breakwater to 300' D/C	8/19/00	9000	3654	146
12	8/19/00	Newport Bay - Bayshore Beach	8/22/00	300	199	146
13	8/22/00	Newport Bay - Garnet Avenue	8/24/00	110	544	238
14		Newport Bay - Rhine Channel	8/24/00	1100	1191	275
15		Newport Bay - Harbor Patrol Beach	8/26/00	80	132	109
16		Newport Bay - Rocky Point Beach	8/24/00	20	350	122
17		Newport Bay - Newport Dunes West End	8/24/00	40	173	141
18	8/23/00	Dana Point Harbor - Baby Beach Swim Area	8/25/00	<20	52	134
		Dana Point Harbor - Baby Beach Buoy Line	8/25/00	40	185	2247
19		Doheny State Beach - SJC to 300' D/C	8/25/00	40	31	169
E	8/24/00	Doheny State Beach - 300' to 1000' D/C of SJC (SERRA S1)	8/25/00	170	80	260
1	8/28/00	Aliso Beach-250" U/C to 100' D/C of Aliso Creek (Ck. Release)	8/30/00	~	~	~
20	8/29/00	Huntington State Beach-500' U/C Newland to 500' (OCSD 6N)	see 9/1/00	5000	5000	>400
		D/C of Magnolia (OCSD 9N)	8/31/00	300	170	138
21		Newport Bay - 500' at north end of Dunes	see 9/6/00	130	645	20
22		Newport Bay - 38th Street	9/2/00	110	1039	20
23	8/30/00	Doheny State Park - SLGT #7 (SERRA S5)	9/6/00	180	160	170
24		Monarch Beach - 300' U/C of Salt Creek	9/3/00	900	109	231
25		Dana Point Harbor - Baby Beach Swim Area	9/9/00	500	3076	4611
		Dana Point Harbor - Baby Beach Buoy Line	9/1/00	70	512	<10
R	8/31/00	Huntington State Beach500' U/C & D/C of Newland (OCSD 9N)	see 9/1/00	5000	5000	>400
E	9/1/00	Huntington State Beach-500' U/C Newland to 500' (OCSD 6N)	9/3/00	9000	9000	>400
		D/C of Magnolia (9/3/00-1 50' U/C&D/C Newland) (OCSD 9N)	9/5/00	<20	<20	176
1	9/3/00	Huntington State Beach 150' U/C & D/C Brookhurst (OCSD 3N)	9/5/00	800	800	202
2	9/6/00	Newport Bay - Garnet Avenue	9/8/00	1700	1183	20
R	(R)	Newport Bay - 300' North end of Dunes (reduction)	9/8/00	20	<10	<10
3	9/7/00	Crystal Cove State Beach - 150' U/C & D/C of Treasure Cove	9/9/00	220	74	669
4		El Morro - 300' D/C of El Morro Creek	9/9/00	130	122	2014
5		Laguna Beach - 150' U/C & D/C of Broadway Street	9/9/00	20	10	379
6		Doheny State Park -SJC to 1500' D/C (SERRA 0)	see 9/13/00	70	80	570
		(9/8/00 - SJC to 300' D/C) (SERRA S1)	9/8/00	100	140	700
7	9/8/00	Huntington State Beach 150' U/C & D/C Newland (OCSD 9N)	see 9/10/00	130	130	124
E	9/10/00	Huntington State/City Beach-500' U/C Beach (OCSD 9N)	see 9/13/00	110	110	108
		to 500' D/C of Newland (OCSD 12N)	9/13/00	300	300	126

1999-2001
POSTING LOG FOR AB411

R	9/13/00	Huntington State Beach - 150' U/C & D/C Newland (OCSD 9N)	9/15/00	230	2	
		Newport Bay - Bayshore Beach	9/15/00	40		
E		Doheny State Beach - 500' U/C of SJC to (SERRA S0)	see 10/11/00	220	120	140
		end of Park (SERRA S1)	see 10/11/00	210	110	240
		(SERRA S3)	see 10/11/00	230	80	120
		(SERRA S5)	see 10/11/00	140	40	190
		(SERRA S7)	see 10/11/00	140	90	110
	9/14/00	Capistrano County Beach to 150' D/C of Poche (SERRA S11)	see 10/26/2000	70	60	150
		Creek (SERRA S13)	see 10/26/2000	80	250	210
		Poche Beach (SERRA S15)	9/21/00	940	580	680
8		Dana Point Harbor - Baby Beach Swim Area	see 9/20/00	20	1500	116
		Dana Point Harbor - Bouy Line	see 9/20/00	40	1607	132
9	9/15/00	Bolsa Chica State Beach-150' U/C & D/C SLGT 23(OCSD 39N)	9/17/00	170	170	178
10		Huntington City Beach - 150' U/C&D/C 17th St. (OCSD 21N)	9/17/00	<20	<20	>400
11	9/17/00	Huntington State Beach-150'U/C&D/C Brookhurst (OCSD 3N)	see 9/18/00	500	220	120
E	9/18/00	Huntington State Beach-500' U/C&D/C Brookhurst (OCSD 3N)	see 9/20/00	~	~	~
12	9/19/00	Seal Beach - Breakwater to 300' D/C of Breakwater	9/22/00	500	336	160
13		Newport Bay - Dunes North	9/21/00	20	496	185
14		Newport Bay - Alvarado and Bay Isle	9/21/00	130	907	<10
15	9/20/00	Huntington State Beach-150' U/C&D/C Brookhurst (OCSD 3N)	9/22/00	70	70	106
16		Crystal Cove State Beach - 300' U/C Los Trancos	9/22/00	<20	20	110
E		Dana Point Harbor - All of Baby Beach (West End)	10/12/00 Long Term	1700	1722	86
		(Buoy Line)	10/12/00 Long Term	1300	3255	11199
		(Swim Area)	10/12/00 Long Term	5000	1860	1012
		(East End)	10/12/00 Long Term	2400	5172	663
17	9/22/00	Newport Bay - Bayshore Beach Play Beach (from closure)	9/26/00	5000	<10	1021
1	9/23/00	Rain Advisory - All Coastline	9/25/00	~	~	
18	9/26/00	Newport Bay - Dunes East	9/28/00	16000	253	74
		Newport Bay - Dunes North	9/28/00	5000	1106	63
19		Newport Bay - 15th Street	9/28/00	110	882	20
20		Newport Bay - 10th Street	9/28/00	>16000	627	183
21		Monarch Beach - 300' D/C of Salt Creek	11/4/00	>16000	12033	4884
22	9/27/00	Huntington State Beach-150' U/C&D/C Brookhurst (OCSD 3N)	9/29/00	1700	500	250
23		Huntington State Beach - 150' U/C&D/C Newland St. (OCSD9N)	10/1/00	40	<20	14
24		Huntington Harbour - Sunset Aquatic Park	9/29/00	3000	1250	20
25		Dana Point - Poche Beach 150' U/C&D/C Creek (SERRA S15)	see 10/26/00	630	180	130
26	9/30/00	San Clemente - 150' U/C&D/C of Pier	10/2/00	5000	161	109
1	10/1/00	Huntington City Beach - 500'U/C LGT#24-500 ' (OCSD 27 N)	10/3/00	40	20	276
		D/C of 17th Steet (OCSD 21N)	10/3/00	<20	<20	324
2	10/3/00	Seal Beach - Breakwater to 300' D/C of Breakwater	see 10/11/00	80	185	214
3		Newport Bay - Harbor Patrol Beach	10/5/00	220	158	331
4		Newport Bay - Dunes North	see 10/18/00	230	256	158

1999-2001
POSTING LOG FOR AB411

5		Three Arch Bay - 150'U/C&D/C of Access Stairs (AWMA S3)	10/5/00	74	11	
1	10/4/00	Aliso Beach - 150' U/C&D/C of Aliso Creek (Creek Release)	10/6/00	~	~	
6	10/6/00	Huntington State Beach - 150'U/C&D/C Newland St.(OCSD 9N)	10/8/00	20	20	136
7		Huntington State Beach - Santa Ana River to 300'U/C (OCSD 0)	10/8/00	<20	<20	>400
1	10/11/00	Rain Advisory - All Coastline	10/15/00	~	~	~
8		Seal Beach - San Gabriel River Breakwater to Pier (1st St.)	see 10/13/00	800	332	10
		(8th Street)	see 10/13/00	3000	496	10
9		Surfside - 150' U/C&D/C of Seaway	10/13/00	<20	31	121
10		Huntington State Beach - 150' U/C&D/C Newland St. (OCSD9N)	10/13/00	230	230	110
E		*All of Doheny (added Breakwater to 500' U/C of SJC)*	*see 1/11/01*	*5000*	776	2613
11	10/12/00	Huntington Harbour - 11th Street Beach	12/5/00	800	637	350
12		Newport Bay - Dunes East	10/15/00	9000	265	131
13		Newport Beach - Little Corona Beach	10/15/00	300	122	243
14		Crystal Cove State Beach - 300' U/C Los Trancos	10/15/00	80	41	107
15		Laguna Beach - Main Beach	10/15/00	16000	2851	1529
16		San Clemente - Avenida Pico to (SERRA S17)	10/15/00	9700	5500	14200
		San Clemente Pier (SERRA S19)	10/17/00	720	390	590
17		San Clemente - 150' U/C&D/C Las Palmeras (SERRA S23)	10/15/00	150	230	110
R	10/13/00	*Seal Beach - Breakwater to 350' D/C of Breakwater (reduction)*	*see 11/21/00 (E)*	16000	368	218
18		Huntington State Beach - 500' U/C Magnolia (OCSD 0)	10/15/00	5000	700	116
		to Santa Ana River (OCSD 3N)	10/15/00	>16000	1100	102
19	10/15/00	Dana Point Harbor - Boat Launch (From Closure)	10/18/00	230	73	187
20	10/17/00	Huntington Harbor - Mother's Beach	10/19/00	20	20	175
21	10/18/00	Newport Bay - Dunes East Swim Area to Pedestrian Bridge	see 11/3/00	20	<10	161
22	10/25/00	Newport Bay - Onyx Avenue	10/27/00	800	988	171
23		Newport Bay - 38th Street Beach	11/3/00	3000	74	135
24	10/26/00	Newport Beach - Little Corona Beach	11/2/00	130	1421	262
25		Crystal Cove State Beach - 300'D/C of El Morro Creek	11/2/00	40	41	185
26		Laguna Beach - Emerald Bay	11/2/00	40	41	309
27		Laguna Beach - Main Beach	11/2/00	230	156	292
R		Capistrano County Beach (SERRA S11)	2/26/01 (see 3/2)	20	10	180
R		(SERA S13)	2/26/01 (see 3/2)	20	20	250
R		Poche Beach - 150' U/C & 150' D/C of Poche Creek (SERRAS15)	see 12/7/00	20	10	900
2	10/27/00	Rain Advisory - All Coastline	11/2/00	~	~	~
28		Bolsa Chica State Beach-150'U/C&D/C SLGt#23 (OCSD 39N)	11/1/00	500	300	262
29	10/29/00	Huntington State Beach - 500' U/C Beach Blvd. (OCSD 12N)	11/1/00	5000R	170R	136R
		to Santa Ana River (OCSD 9N)	11/2/00	16000R	230R	340R
	(RAIN	(11/1/00 - 500' U/C Newland to SAR) (OCSD 6N)	11/2/00	5000R	300R	202R
	EVENT)	(OCSD 3N)	11/2/00	3000R	800R	360R
		(OCSD 0)	11/2/00	9000R	500R	278R
		Newport Beach - 500' D/C Orange Street (OCSD 3S)	11/2/00	9000R	500R	262R
30		Newport Beach - Corona del Mar State Beach (OCSD 29S)	11/1/00	9000R	130R	160R

31	10/30/00	San Clemente-1000' U/C&D/C Pico Drain (From Closure)	see 11/2/00	5000	11	
R	11/2/00 (R)	San Clemente - 300' Section of North Beach (From Closure)	11/4/00	90	2	
R	11/3/00 (R)	Newport Bay - Dunes East	see 11/8/00	500	<10	<10
E	11/7/00 (E)	Capistrano Bay District	11/29/00	310	130	110
1	11/8/00	Huntington State Beach-150' U/C&D/C Brookhurst (OCSD 3N)	see 11/14/00	170	170	380
2		Newport Bay - Dunes North	11/10/00	<20	10	10
		Newport Bay - Dunes East	11/15/00	500	605	187
		Newport Bay - Dunes Middle	11/10/00	170	209	1236
		Newport Bay - Dunes West	11/10/00	230	63	158
3		Newport Bay - Rhine Channel	11/10/00	500	487	31
4		Newport Bay - 19th Street Beach	12/6/00	800	1119	620
5		Newport Bay - 38th Street Beach	11/10/00	2400	31	488
6	11/13/00	Newport Beach-300' of Corona del Mar State Bch (OCSD29S)	11/15/00	800	800	64
E	11/14/00	Huntington State Beach-500' U/C Magnolia to (OCSD 6N)	11/16/00	500	500	96
		500' D/C of Brookhurst (OCSD 3N)	11/15/00	300	300	134
7		Laguna Beach - 300' of Main Beach	11/16/00	300	41	211
8		Laguna Beach - Bluebird Canyon (AWMA S15)	11/16/00	>2000	>2000	420
9	11/15/00	Huntington City Beach-150' U/C & D/C Huntington St. (OCSD 15N)	11/17/00	<20	<20	258
10	11/16/00	Huntington Harbour - Sunset Aquatic Park	11/18/00	170	30	199
11		Huntington State Beach-150' U/C &150' D/C Brookhurst (OCSD 3N)	11/17/00	1300	1300	88
E	11/21/00	(E) Seal Beach - SGR Breakwater to Pier (1st Street)	see 12/1/00	300	31	71
		(8th Street)	11/24/00 (R)	170	10	168
12		Huntington Harbour - Trinidad Beach	11/24/00	500	663	<10
13		Huntington Harbour - Sunset Aquatic Park	12/21/00	300	185	474
14		Newport Beach - Little Corona Beach	11/24/00	500	1616	85
15	11/27/00	Huntington State Beach - 150' U/C& D/C Brookhurst St. (OCSD 3N)	11/29/00	70	70	112
16	11/28/00	Laguna Beach - Lifeguard Headquarters to	11/30/00	800	63	132
		Hotel Laguna (AWMA S16)	11/30/00	220	190	270
17		Laguna Beach - Three Arch Bay (AWMA S3)	11/30/00	36	26	360
18		Dana Point - 300' North end of Salt Creek Beach (AWMA S2)	11/30/00	Cw/c	100	180
E	12/1/00	Seal Beach - SGR Breakwater to 700' D/C	see 12/5/00 (R)	500	272	52
R	12/5/00	Seal Beach - SCR Breakwater to 350' D/C	12/28/00	80	145	<10
1	12/6/00	Newport Bay - 300' of North Star Beach	12/8/00	300	776	10
2		Newport Bay - Rhine Channel	12/8/00	3000	613	52
3		Newport Bay - 300' of North end of Dunes	12/8/00	500	345	134
4		Newport Bay - 300' of West end of Dunes	12/8/00	800	470	41
5	12/7/00	Huntington Harbour - Clubhouse Marina	12/9/00	1100	74	199
E		(E) Dana Point - Capistrano Bay District to (SERRA S11)	Long Term 3/11/01	10	40	50
		500' D/C of Poche Creek (SERRA S13)	Long Term 3/11/01	60	10	50
6		San Clemente - 150' D/C of Lifeguard Headquarters	12/9/00	10	40	110
7	12/10/00	Huntington State Beach - 500' U/C & D/C Brookhurst St. (OCSD 3N)	12/14/00	800	800	206
8	12/12/00	Huntington Harbour - 11th Street Beach	12/14/00	500	404	171

1999-2001
POSTING LOG FOR AB411

9		Laguna Beach - 300' of Main Beach	see 12/13/00	500	3	
10		Monarch Beach - Salt Creek to 300' D/C	12/14/00	220	1	
11	12/13/00	Newport Bay - Harbor Patrol Beach	12/15/00	130	31	121
12		Newport Bay - Abalone Avenue	12/20/00	80	10	160
13		Newport Bay - Grand Canal	12/15/00	20	20	213
14		Newport Beach - 500' between 15th & 16th Streets (OCSD 15S)	12/15/00	500	500	264
E		(E) Laguna Beach - 500' U/C of Lifeguard Headquarters to	see 12/14/00	500	327	189
		500' D/C of Hotel Laguna (AWMA S16)	~	>400	96	350
15		Dana Point - 150' D/C & 150' U/C Selva Ramp	12/14/00	12	12	200
16		San Clemente - 300' of North End of North Beach	12/15/00	650	240	1100
R	12/14/00	(R) Laguna Beach - 300' at Hotel Laguna (AWMA S16)	12/22/00	280	170	50
17	12/20/00	Newport Bay - Rhine Channel	12/27/00	9000	24192	31
18		Newport Bay - 10th Street Beach	12/22/00	20	61	379
19	12/21/00	Huntington Harbour - 11th Street Beach	Long Term 3/11/01	1700	452	318
20	12/27/00	Newport Bay - Abalone Avenue	1/6/01	20	<10	41
21	12/28/00	Huntington Harbour - Sunset Aquatic Marina	12/30/00	40	10	52
22		Huntington Harbour - Admiralty Drive Channel	2/23/01	90	110	364

2000 Summar	Postings	Rain Advisories	Creek Releases	Misc.
January	25	1		
February	1	3		
March	18	1		
April	24	1		
May	22	0		
June	21	0		
July	32	0	1	
August	25	0	1	
September	26	1		
October	31	2	1	
November	18	0		
December	22	0		
Totals	265	9	3	

1	1/4/01	Newport Bay - Newport Dunes East	1/6/01	1700	1414	<10
2	1/5/01	Seal Beach - SGR breakwater to 300' downcoast	1/19/01	<20	20	80
3		Newport Beach - 300' of Corona del Mar State Beach (OCSD 29S)	1/7/01	300	300	158
4	1/7/01	Huntington State Beach - 500' U/C & D/C Brookhurst (OCSD 3N)	1/18/01	1100	1100	172
1	1/8/01	Rain Advisory - All Coastline	1/16/01	~	~	~
	1/11/01 (R)	Doheny State Beach-Ped. Bridge to end park (Red. due to closure)	see 1/18/01 (E)	~	~	~

5	1/18/01	Newport Beach - 300' @ Orange Street (OCSD 3S)	1/19/01	2200	2:	
6		Newport Bay - Dunes All - Middle	2/23/01	800	1:	
		Newport Bay - Dunes All - West	2/9/01	3000	2046	4352
		Newport Bay - Dunes All -East	1/20/01 (R)	330	74	98
		Newport Bay - Dunes All - North	1/20/01 (R)	300	74	160
7		Newport Bay - 38th Street	1/25/01	16000	86	134
8		Newport Bay - North Star Beach	2/23/01	500	187	5172
9		Newport Bay - Alvarado & Bay Isle	1/20/01	230	<10	135
	(E)	All of Doheny State Park Beach(reposting after closure-see 1/11/01)	2/26/01(see 3/2)	~	~	~
10	1/19/01	Seal Beach - 8th Street	see 1/25/01 (E)	300	85	311
11	1/23/01	Salt Creek Beach - Salt Creek to 300' D/C	1/31/01	800	253	253
2	1/24/01	Rain Advisory - All Coastline	1/31/01	~	~	~
12	1/25/01 (E)	Seal Beach - SGR Breakwater to Seal Beach Pier	see 2/2/01	230	74	171
13		Newport Bay - Lido Isle Yacht Club Beach	1/31/01	230	121	259
	2/2/01(R)	Seal Beach - SGR breakwater to 300' downcoast	2/3/01	~	~	~
1		Huntington State Beach - 150' U/C & D/C Brookhurst (OCSD 3N)	see 2/3/01	2800	~	24
	2/3/01(E)	Huntington State Beach - 500' U/C & D/C Brookhurst (OCSD 3N)	see 2/6/01	2800	2800	24
	2/6/01(R)	Huntington State Beach - 150' U/C & D/C Brookhurst (OCSD 3N)	2/8/01	~	~	~
2		Newport Beach - 300' at north end of Corona del Mar State Beach	2/8/01	80	131	109
3	2/7/01	Seal Beach - 150' U/C & D/C of 8th Street	2/9/01	~	~	Log Mean
4		Huntington City Beach-500' U/C&D/C Dog Beach (OCSD 27N)	2/9/01	800	800	184
5		Newport Bay - Onyx Avenue	2/9/01	9000	12033	7701
6		Newport Bay - Sapphire Avenue	2/9/01	20	10	185
7		Newport Bay - Via Genoa	2/9/01	130	20	109
8		Newport Bay - Promontory Point Channel	2/9/01	300	52	5794
9		Newport Bay - Harbor Patrol Beach	2/9/01	130	86	240
10	2/8/01	Huntington City Beach-150' U/C&D/C Huntington St. (OCSD 15N)	2/9/01	800	500	64
11		Huntington Harbour - Humboldt Beach	2/10/01	3000	73	3076
12		Huntington Harbour - Davenport Beach	2/10/01	2400	10	272
13		Huntington Harbour - Coral Cay Beach	2/10/01	3000	4611	1935
14		Laguna Beach - 150' U/C&D/C of Laguna Hotel (AWMA S16)	2/10/01	Cw/C	410	>2000
15		Laguna Beach - 150' U/C&D/C of Bluebird Canyon Dr. (AWMA S15)	2/10/01	470	130	160
16		Aliso Beach - Treasure Island (AWMA S11)	2/10/01	190	30	110
		- Aliso North (AWMA S10)	2/10/01	220	70	140
		- Aliso Mid (AWMA S9)	2/10/01	480	2310	140
		- Aliso South (AWMA S8)	2/10/01	200	100	160
3	2/10/01	Rain Advisory - All Coastline	2/16/01	~	~	~
17	2/17/01	Huntington State Beach -300 ' U/C of SAR to	~	~	~	~
		Newport Beach - 300' D/C of SAR (from closure)	2/20/01	~	~	~
4	2/20/01	Rain Advisory - All Coastline	3/13/01	~	~	~
18	2/21/01	Laguna Beach - 150' U/C & D/C of Anita Street (from closure)	2/23/01	~	~	~
19	2/25/01	Huntington State Beach 1000 ' U/C of SAR to	~	~	~	~

		Newport Beach - 1000' D/C of SAR (from closure)	3/8/01	~		
20		Newport Beach - Newport Slough (from closure)	3/11/01	~		
1	3/2/2001 (C)	Dana Point-Doheny St. Beach(from closure-reposting-see 1/18/01)	Long Term 3/11/01	~	~	~
	(C)	Dana Point-Capo. Co. Beach (from closure-reposting see 10/26/00)	Long Term 3/11/01	~	~	~
2	3/14/01	Newport Bay - Sapphire Avenue	3/16/01	20	10	121
3		Newport Bay - North Star Beach	3/16/01	500	97	132
4		Laguna Beach - Cress Street D/C to Pearl Street (dead fish & birds)	3/15/01	430	300	350
1		San Clemente - 150' U/C & D/C of Riveria Tunnel (Creek Release)	3/15/01	~	~	~
5	3/15/01	Huntington Harbour - Trinidad Beach	3/17/01	800	556	63
6		Newport Beach - Newport Slough	3/17/01	6131	30	131
7	3/19/01	Newport Beach - 150' U/C & D/C of Orange Street	3/20/01	800	>400	80
8	3/20/01	Dana Point - 300' of Salt Creek Beach @ south End of Ritz Cove	3/21/01	26	1	130
9		Newport Bat - Dunes Middle	3/22/01	70	50	150
10	3/22/001	Huntington Harbour - Mother's Beach	3/24/01	530	540	40
11	3/27/01	Aliso Beach - Aliso Creek D/C to Camel Point (AWMA S8)	3/29/01	510	330	320
		(AWMA S9	~	200	110	160
12		Newport Bay - Grand Canal	3/29/01	30	10	150
13		Newport Bay - Rocky Point	3/31/01	460	520	70
14	3/28/01	Laguna Beach - 300' of Victoria Beach (AWMA S14)	3/29/01	Cw/C	>400	64
15	3/29/01	Huntington Harbour - Huntington Harbour Marina	3/31/01	TNTC	10800	7600
16		Huntington Harbour - Admiralty Drive	3/31/01	10	10	200
17		Huntington Harbour - Anaheim Bay Gas Dock	3/31/01	10	10	200
18	3/30/31	Crystal Cove State Park - Muddy Creek	4/1/01	8800	2000	1600
19		Monarch Beach - 300' D/C of Salt Creek	4/1/01	30	40	260
1	4/3/01	Newport Bay - Dunes East	4/5/01	330	350	120
2		Newport Bay - Alvarado & Bay Isle	4/12/01	100	20	480
3		Newport Bay - Rhine Channel	4/5/01	>4400	>3400	95
4	4/5/01	Seal Beach - 500' D/C of Seal Beach Pier	4/7/01	3000	2400	1090
5		Huntington Harbour - Huntington Harbour Marina	4/7/01	4800	3600	340
6		Newport Slough - Grant Street	4/7/01	150	40	130
7	4/6/01	Aliso Beach - 150' U/C & D/C of Concession Stand	4/9/01	90	70	110
1	4/7/01	Rain Advisory - All Coastline	4/13/01	~	~	~
8	4/8/01	Huntington State Beach - 500' U/C Newland Street (OCSD 9N)	4/11/01	170	170	112
		to 500' D/C of Magnolia Street (OCSD 6N)	~	300	300	136
9	4/10/01	Newport Bay - 38th Street Beach	4/12/01	2000	90	1000
10		Newport Bay - Lido Isle Yacht Club Beach	4/12/01	TNTC	570	130
11		Newport Bay - Via Genoa	4/12/01	TNTC	650	120
12		Newport Bay - Bayshore Beach	4/15/01	18400	230	70
13		Newport Bay - DeAnza Ramp	4/12/01	22200	370	110
14		Newport Bay - Harbor Patrol Beach	4/17/01	90	170	410
15		Newport Bay - Onyx Avenue	4/12/01	4000	130	150
16		Newport Bay - "N" Street Beach	4/12/01	>17000	150	10

17		Newport Bay - 10th Street Beach	4/12/01	11400	9	
18		Newport Bay - 15th Street Beach	4/12/01	TNTC	59	
19		Newport Bay - 19th Street Beach	4/12/01	TNTC	380	<10
20		Newport Bay - North Star Beach	4/12/01	TNTC	1050	250
21		Newport Bay - Newport Dunes North	4/12/01	TNTC	1000	150
		Newport Bay - Newport Dunes East	4/12/01	TNTC	1390	90
		Newport Bay - Newport Dunes Middle	4/12/01	TNTC	710	80
		Newport Bay - Newport Dunes West	4/12/01	TNTC	760	60
22		Laguna Beach - 250' U/C & D/C of Hotel Laguna	4/12/01	200	2300	100
23		Dana Point - 300' of Salt Creek Beach @ south End of Ritz Cove	4/12/01	320	<10000	20
24	4/12/01	Huntington Harbour - Clubhouse	4/30/01	~	~	Log Mean
25		San Clemente - 300' of North Beach	4/15/01	100	54	120
26	4/19/01	Monarch Beach - 300' U/C of Salt Creek (from closure)	4/21/01	28	30	110
27	4/20/01	Huntington State Beach - 150' U/C & D/C Magnolia (OCSD 6N)	4/22/01	3000	3000	42
2	4/21/01	Rain Advisory - All Coastline	4/24/01	~	~	~
28	4/21/01	Newport Beach - Balboa Pier to 300' D/C (OCSD 21S)	4/22/01	1100	1100	2
29		Laguna Beach - 300' D/C of Pearl Street (from closure)	4/23/01	>16000	278	173
30	4/24/01	Newport Bay - Dunes North	4/26/01	12800	260	<10
31		Newport Bay - 10th Street Beach	4/26/01	18400	220	20
32		Newport Bay - North Star Beach	4/26/01	>25600	310	10
1	5/1/01	Newport Bay - Dunes North	5/3/01	7800	5000	20
2	5/3/01	Huntington Harbour - Clubhouse	5/5/01	830	780	760
3		Newport Beach - Grant Street @ Newport Slough		130	90	2200
4		Dana Point - Capo Bay Community Beach (SERRA S13)	5/5/01	80	70	270
5	5/8/01	Huntington Harbour - Seagate Lagoon	5/11/01	<10	<10	420
6	5/9/01	Huntington State Beach - 500' U/C & D/C Magnolia (OCSD 6N)	5/11/01	>16000	>16000	94
7	5/10/01	Laguna Beach - Laguna Lido Apartments (AWMA S 5)	5/12/01	410	<10	150
8	5/15/01	Newport Bay - Rhine Channel	5/17/01	6800	<10	160
9		Newport Bay - Bayshore Beach	5/17/01	100	30	250
10		Newport Bay - Onyx Avenue	5/17/01	50	100	170
11		Newport Bay - Garnet Avenue	5/17/01	4000	630	20
12	5/17/01	Huntington Harbour - Trinidad Beach	5/19/01	30	<10	360
13	5/18/01	Newport Bay - Bayshore Beach	5/21/01	~	~	Log Mean
14	5/22/01	Newport Bay - Dunes East	5/24/01	31200	10	100
15		Newport Bay - Sapphire Avenue	5/30/01	30	40	410
16	5/24/01	Huntington Harbour - Trinidad Beach	5/27/01	~	~	Log Mean
17	5/25/01	Crystal Cove State Park - El Morro Beach	5/27/01	10	10	210
18	5/29/01	Aliso Beach - 150' U/C & D/C of Stairway (AWMA S10)	5/31/01	>400	570	100
19	5/30/01	Newport Bay - Harbor Patrol Beach	6/1/01	~	~	140
1	6/1/01	Huntington Harbour - 11th Street	6/7/01	30	60	200
2		Newport Beach - Lancaster Beach @ Newport Slough	6/7/01	300	310	820
3		Dana Point - Capistrano County Beach (SERRA S9)	6/6/01	500	30	160

4	6/3/01	Huntington State Beach-150 U/C & D/C Magnolia (OCSD 6N)	6/11/01	500	5(	
5	6/5/01	Newport Bay - Harbor Patrol Beach	7/10/01	C/wc	3(	
		Newport Bay - Rocky Point	6/7/01	3200	3(	62(
6	6/6/01	Huntington State Beach - 150' U/C & D/C Newland (OCSD 9N)	6/8/01	1300	1300	990
7	6/7/01	Huntington Harbour - Clubhouse	6/9/01	>4400	6600	990
		Huntington Harbour - Sunset Aquatic Marina	6/9/01	1400	490	80
8	6/8/01	Doheny State Beach - SLGT #7 (SERRA S5) from long term	see 6/14/01	~	~	Log Mean
9	6/12/01	Huntington Harbour - Sunset Aquatic Marina (from closure)	6/14/01	~	~	~
10	6/14/01	Huntington Harbour - Humboldt Beach	6/16/01	2600	780	10
11		Newport Beach - Lancaster Beach @ Newport Slough	7/12/01	~	~	Log Mean
12		Dana Point - San Juan Creek D/C to end of Doheny Beach (SERRA S1)	7/17/01 (SS)	6400	3200	1500
		(SERRA S3)	7/17/01 (SS)	9100	4700	2700
		(SERRA S5) frc	7/17/01 (SS)	~	~	Log Mean
		(SERRA S7)	6/16/01	82	120	150
13		Dana Point - Poche Beach/150' U/C & D/C of Poche Creek (SERRA S15)	6/16/01	5200	700	1500
14	6/19/01	Huntington State Beach - 150' U/C & D/C of Newland Street (OCSD 9N)	see 6/23/01	430	240	250
15	6/21/01	Huntington Harbour - Huntington Harbour Marina	6/23/01	570	870	<10
16	6/23/01	Huntington City Beach - 150' U/C & D/C Jack's Snack Bar (OCSD 15N)	6/25/01	470	370	780
E		Huntington State Beach - 500' U/C & D/C Newland Street (OCSD 9N)	6/25/01	540	550	930
17	6/26/01	Newport Bay - Lido Isle Yacht Club Beach	6/28/01	>580	940	20
18		Newport Bay - Grand Canal	6/28/01	1750	1500	20
19		Dana Point - Poche Beach/500' U/C & D/C of Poche Creek (SERRA S15)	See 8/15/01	7700	1200	820
20	6/28/01	Huntington Harbour - Harbor Channel @ Coral Cay	6/30/01	210	10	300
21	6/29/01	Huntington City Beach - 150' U/C & D/C Huntington Street (OCSD 15N)	7/1/01	300	300	122
1		Aliso Beach - 500' U/C & D/C of Aliso Creek (Creek Release)	7/1/01	~	~	~
1	7/3/01	Newport Bay - 19th Street Beach	7/5/01	400	420	810
2		Newport Bay - Abalone Avenue on the South Bayfront of Balboa Island	7/5/01	2200	1100	390
3	7/4/01	Huntington Harbor - Mother's Beach	7/6/01	100	760	20
4		Huntington State Beach - !50' U/C & D/C of Magnolia Street (OCSD 6N)	see 7/6/01	430	330	130
5		Newport Beach - 150' U/C & D/C of 38th Street	7/6/01	190	10	460
6		Newport Beach - Little Corona Beach	7/6/01	20	20	150
1	7/6/01	San Clemente - 300' of North Beach (Creek Release)	7/9/01	~	~	~
E		Huntington State & City Beach - 500' U/C of Beach to (OCSD 12N)	7/8/01	420	200	240
		500' D/C of Magnolia (OCSD	7/8/01	640	480	260
			7/8/01	130	150	110
7	7/8/01	Huntington State Beach - SAR to 300' U/C (OCSD 0)	7/11/01	40	400	70
8		Newport Beach - 150' U/C & D/C of 38th Street (OCSD 9S)	7/10/01	160	140	350
9	7/10/01	Huntington City Beach - 150' U/C & D/C of 17th Street (OCSD 21N)	7/11/01	10	20	160
10		150' U/C & D/C of Magnolia Street (OCSD 6N)	7/11/01	470	250	160
11		Newport Bay - 19th Street Beach	7/31/01	1300	1520	900
12		Newport Bay - Alvarado & Bay Isle	7/12/01	29400	12400	20
13		Newport Bay - Sapphire Avenue	7/12/01	80	10	150

14		Newport Bay - Onyx Avenue	7/12/01	80	70	
15		Newport Bay - Newport Dunes North	7/12/01	>16000	560	
16		Newport Bay - Newport Dunes East	7/12/01	10600	50	
17		San Clemente - 150' U/C & D/C of Lifeguard Headquarters	7/11/01	430	230	470
18	7/11/01	Dana Point Harbor - Youth Dock	7/13/01	20800	6200	140
19	7/12/01	Huntington Harbour - Sunset Aquatic Marina	7/14/01	1400	430	20
20		Huntington Harbour - Peter's Landing Marina	7/19/01	1200	120	140
21	7/17/01	Newport Bay - Grand Canal	7/19/01	200	160	140
22		Newport Bay - Newport Dunes North	7/21/01	800	220	3600
23		Newport Bay - 38th Street Beach	7/28/01	2000	600	30
24		Newport Bay - Lido Isle Yacht Club Beach	7/19/01	5000	3400	20
25	7/18/01	Huntington City Beach - 500' U/C of Huntington Street to (OCSD 15N)	7/19/01	120	70	170
		500' D/C of Magnolia Street (OCSD 12N)	7/19/01	230	220	150
		(7/19/01-500' U/C Newland to (OCSD 9N)	7/20/01	330	240	210
		500' D/C of Magnolia) (OCSD 6N)	See 7/20/01	800	1570	1050
26		Dana Point Harbor - Baby Beach West End	7/20/01	400	440	70
27		Dana Point Harbor - Baby Beach East End	7/26/01	5000	2200	270
28		Dana Point Harbor - Youth Dock	7/20/01	10600	550	10
29	7/19/01	Newport Beach - Lancaster Beach @ Newport Slough		2200	100	200
30		Doheny State Beach - DPH Breakwater to 300' D/C (from sewage spill)	8/8/01	~	~	Log Mean
31		Doheny State Beach - 150' U/C & 150' D/C of SLGT 7 (from sewage spill)	8/4/01	~	~	Log Mean
	7/20/01	(R) Huntington State Beach-150' U/C & D/C Magnolia Street (OCSD 6N)	7/22/01	380	340	250
32	7/24/01	Huntington State Beach - 150' U/C & D/C Brookhurst Street (OCSD 3N)	7/25/01	240	140	110
33		Newport Bay - Dunes North	8/11/01	23800	80	40
34		Newport Bay - Dunes East	8/30/01	31200	20	20
35	7/25/01	Monarch Beach - 300' U/C of Salt Creek	7/27/01	2200	200	160
36	7/26/01	Huntington Harbour - Humboldt Beach	7/28/01	30	10	570
37		Huntington Harbour - Sunset Aquatic Marina	7/28/01	800	190	180
38	7/31/01	Newport Bay - Rhine Channel	8/2/01	1000	310	140
39		Newport Bay - Harbor Patrol Beach	8/8/01	1000	310	140
1	8/1/01	Huntington State Beach - 150' U/C & D/C Brookhurst Street (OCSD 3N)	8/2/01	1100	1100	74
2		Dana Point Harbor - All of Baby Beach (Swim Area)	8/31/01	250	340	4200
		(West End)		1000	1000	80
		(Buoy Line)	8/31/01	190	30	100
		(East End)		600	110	70
3		San Clemente -150' U/C & D/C Lifeguard Headquarters (SERRA S19)	8/8/01	40	30	200
4		San Clemente - 150' U/C & D/C of Trafalgar Street (from fire)	8/3/01	~	~	~
5	8/2/01	Huntington Harbour - Peter's Landing Marina	See 8/15/01	23400	<10	40
6		Huntington State Beach - 150' U/C & D/C of Magnolia Street (OCSD 6N)	See 8/3/01	800	800	82
	8/3/01	(E) Huntington State Beach - 500' U/C Newland to 500' D/C Magnolia (6N	8/4/01			
		(OCSD 9N	See 8/4/01	500	300	114
	8/4/01	(R) Huntington State Beach - 500' U/C & D/C Newland Street (OCSD 9N)	8/5/01	300	300	88

7	8/7/01	Capistrano Bay Community Beach (SERRA S11)	8/8/01	<10	<1	
8	8/8/01	Doheny State Beach - 150' U/C & 150' D/C of SLGT 9 (SERRA S1)	8/11/01	20	1(	
9	8/9/01	Newport Bay - Harbor Patrol Beach	8/23/01 (SS)	~	~	~
10	8/10/01	Huntington Harbour - Admiralty Drive Channel	8/12/01 (SS)	~	~	~
11		Doheny State Beach - DPH Breakwater to 300' D/C	8/31/01	200	30	200
12	8/12/01	Huntington State Beach - 150' U/C & D/C of Beach Blvd. (OCSD 12N)	8/14/01	2400	2400	18
	8/15/01	Huntington Harbour - Peter's Landing Marina (from sewage spill)	8/16/01	~	~	~
13		Huntington State Beach - 150' U/C & D/C of Beach Blvd. (OCSD 12N)	8/16/01	260	260	84
	(R)	Dana Point - Poche Beach/150' U/C & D/C of Poche Creek (SERRA S15)	see 8/28/01	~	~	~
14	8/16/01	Huntington Harbour - Huntington Harbour Marina	8/18/01	1150	930	10
15		Huntington Harbour - Anaheim Bay Gas Dock	8/18/01	370	170	130
16		Huntington State Beach - 150' U/C & D/C of Brookhurst St. (OCSD 3N)	8/19/01	230	130	118
17	8/17/01	Huntington State Beach - 150' U/C & D/C of Beach Blvd. (OCSD 12N)	8/19/01	250	380	300
18		Newport Beach - 300' between 52nd & 53rd Streets (OCSD 6S)	8/19/01	400	70	160
19		Crystal Cove State Park - 150' U/C & D/C El Morro Creek	8/19/01	190	150	160
20		Monarch Beach - 300' D/C of Salt Creek	8/19/01	10600	300	133
21	8/22/01	Aliso Beach - Aliso Creek to 300' D/C of Aliso Creek (AWMA S8.5)	8/23/01			
		(AWMA S9)	8/23/01	250	27	180
22		Doheny State Beach - 300' between LGT #8 & #9 (SERRA S3)	see 8/28/01	100	40	160
23		Capistrano County Beach - 300' between LGT #1 &#2 (SERRA S9)	8/23/01	60	40	120
24	8/23/01	Huntington State Beach - SAR to 300' U/C (OCSD 0)	8/24/01	120	10	350
25	8/24/01	Dana Point Harbor - Harbor Patrol Dock	8/26/01	230	10	150
	8/26/01	Newport Bay - Harbor Patrol Beach (from sewage spill)		~	~	~
26	8/28/01	Huntington State Beach - 150' U/C & D/C of Newland Street (OCSD 9N)	8/29/01	110	110	202
27		Newport Beach - 300' between 15th & 16th Streets (OCSD 15S)	8/29/01	20	20	>400
28		Newport Beach - 300' at the Wedge (OCSD 27S)	8/29/01	500	300	106
		(E) Doheny State Beach - 500' D/C LGT 9, D/C to end of Park (SERRA S	see 8/29/01	650	470	740
		(SERRA S5)	see 8/29/01	50	70	150
		(SERA S9)	see 8/29/01			Log Mean
29		Capistrano Bay District - 500' U/C 35505 Beach Rd., (SERRA S	8/29/01	270	210	190
		to 500' D/C Poche Creek at Poche Beach (SERRA S15)				Log Mean
30	8/29/01	Huntington City & State Beach - 150' U/C & D/C of Beach (OCSD 12N)		500	500	198
31		Huntingyton State Beach - 150 ' U/C & D/C of Brookhurst St. (OCSD 3N)	8/30/01	300	300	330
		(R) Doheny State Beach - SJC to 500' D/C of LGT # 7 (SERRA S1)	see 8/31/01	200	70	160
		(SERRA S3)		200	100	200
		(SERRA S5)		200	80	200
		(SERRA 0)		>26000	3600	3000
32		Capistrano County Beach - (SERRA S9)	8/31/01	200	40	110
		(R) Poche Beach - 150' U/C & D/C of Poche Creek				Log Mean
33	8/30/01	Huntington Harbour - Peter's Landing Marina	9/4/01			Log Mean
		(E) Huntington City & State Beach - 500' U/C & D/C of Beach (OCSD 12N	see 8/31/01	500	500	198
34		Huntington State Beach - 150' U/C & D/C of Magnolia Street (OCSD 6N)	8/31/01	1300	1300	110

pres. Post

1999-2001
POSTING LOG FOR AB411

35		Monarch Beach - Salt Creek to 300' D/C of Salt Creek				
	8/31/01	(R) Huntington City & State Beach - 150' U/C & D/C of Beach (OCSD 12N	9/1/01			
		(R) Dana Point Harbor - East End and West End of Baby Beach				
		(R) Doheny State Beach - 500' D/C LGT 9 to 50' D/C LGT 7				
1	9/2/01	Huntington State Beach - 150' U/C & D/C Magnolia Street (OCSD 6N)	see 9/4/01			
2	9/3/01	Bolsa Chica State Beach - 150' U/C & D/C Warner Avenue (OCSD 39N)	9/4/01			
	9/4/01	(E) Huntington State Beach - 500' U/C Magnolia (OCSD 6N)				
		to 500' D/C Brookhurst (OCSD 3N)				

2001 Summar	Postings	Rain Advisories	Creek Releases	Misc.	UPDATED
January	13	2			9/6/01
February	20	4			
March	19	0	1		
April	32	2			
May	19	0			
June	21	0	1		
July					
August					
September					
October					
November					
December					
Totals					