

- 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

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" 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

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

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

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 – FUN WHAT ?
- 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

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

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

- 6/4 {
- 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

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:

- u/y { 2/2 {
- 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

TABLE 2
 State Mussel Watch Program
 Summary of 1997-98 Data: Trace Elements in Mussels, Clams, and Sediment
 (ppm, dry weight)

Station Silver Number Selenium	Station Name Zinc	Sample Type*	Sample Date	Aluminum	Arsenic	Cadmium	Chromium	Copper	Lead	Manganese Mercury	Nickel
508.1 NA	Mugu Drainage 1 0.451 54.0	SED	03/25/98	65632.0	NA	0.99	38.27	20.9	14.98	400.2	0.018 19.1
601.0 0.6	LA Harbor/National Steel 0.055 303.0	TCM	03/24/98	424.0	11.6	9.57	5.19	13.0	6.40	30.1	0.609 2.5
616.0 2.1	LA Harbor/Consolidated Slip 0.106 354.0	TCM	03/24/98	688.0	5.8	9.48	9.09	21.3	10.47	47.3	0.382 4.8
617.9 NA	Cabrillo Beach/Ocean Side 3.548 186.0	RCM	03/24/98	840.0	NA	1.90	5.31	9.8	2.48	22.2	0.169 3.6
618.0 NA	LA Harbor/Angels Gate 0.018 98.0	RBM	11/04/97	572.0	9.4	0.61	2.77	6.9	0.88	15.4	0.062 1.4
648.0 NA	Malibu 0.097 101.0	RCM	11/03/97	438.0	9.7	2.03	2.69	5.1	0.63	14.1	0.076 1.8
650.0 NA	Santa Monica 2.704 135.0	RCM	11/03/97	460.0	NA	0.85	4.67	12.1	3.05	18.7	0.160 2.7
662.0 NA	Royal Palms 4.307 177.0	RCM	03/24/98	434.0	NA	2.56	44.89	9.1	2.46	23.2	0.266 27.6
708.0 1.8	Anaheim Bay/Navy Marsh 3.107 193.0	TCM	03/24/98	816.0	9.6	1.72	11.35	11.1	2.49	21.2	0.154 5.4
713.0 1.9	Huntington Harbour/Edinger Street 0.067 390.0	TCM	03/24/98	892.0	9.4	6.86	4.49	21.8	6.19	35.2	0.200 2.1
715.0 2.0	Huntington Harbour/Warner Ave Brgd 0.065 315.0	TCM	03/24/98	305.0	9.3	4.98	4.73	11.1	6.36	35.4	0.174 2.8
722.0 1.9	Newport Bay/Police Docks 0.046 396.0	RBM	03/24/98	1491.0	7.8	8.06	4.68	14.4	4.29	45.1	0.238 2.4
723.4 1.9	Newport Bay/Turning Basin 0.048 321.0	RBM	03/24/98	832.0	7.0	5.31	19.33	40.3	3.43	113.0	0.234 12.1
724.0 2.1	Newport Bay/Highway 1 Bridge 0.033 278.0	TCM	03/24/98	1042.0	9.6	6.05	9.72	15.0	3.51	46.9	0.214 5.4
725.0 2.0	Newport Bay/Crows Nest 0.007 58.0	TCM	03/24/98	102.0	10.5	0.79	0.56	12.1	0.55	6.5	0.059 0.2
726.4 8.0	Newport Bay/Rhine Channel/End 0.047 432.0	TCM	03/24/98	414.0	9.8	5.70	3.87	81.3	3.25	47.4	0.315 1.4
726.6 1.6	Newport Bay/Mariners Drive 0.032 210.0	TCM	03/24/98	434.0	10.6	5.28	2.87	9.3	2.88	34.1	0.170 2.0
750.0 2.1	Oceanside 0.034 98.0	RCM	11/03/97	678.0	5.4	0.95	5.81	6.0	0.57	19.8	0.082 2.6
883.3 1.7	San Diego Bay/Chollas Creek/End 0.098 388.0	TCM	03/25/98	300.0	9.1	4.40	4.38	16.9	7.96	35.1	0.205 1.9
885.3 8.0	San Diego Bay/7th Street Ch/Mid 0.181 407.0	TCM	03/25/98	433.0	8.2	4.30	3.11	24.5	11.47	40.8	0.179 1.1
887.0 1.8	San Diego Bay/Evans Street 0.166 361.0	TCM	03/25/98	499.0	9.1	5.89	3.27	20.8	7.99	39.0	0.291 1.2
893.0 2.0	San Diego Bay/Laurel Street 0.092 304.0	TCM	03/25/98	372.0	9.2	5.34	5.55	12.9	7.86	18.4	0.299 2.2
894.1 3.7	SD Bay/Harbor Is/E Basin/Storm Dr2 0.215 509.0	TCM	03/25/98	725.0	9.1	4.86	4.71	46.6	8.51	36.8	0.390 1.2
898.5 8.0	SD Bay/N Island/Aircraft Platform 0.121 317.0	TCM	03/25/98	510.0	10.2	4.10	3.54	14.9	6.29	27.8	0.232 1.4
899.2 2.2	San Diego Bay/Shelter Island 0.071 289.0	TCM	03/25/98	868.0	8.5	4.42	6.94	15.2	4.85	17.7	0.199 3.5

TABLE 2
 State Mussel Watch Program
Preliminary Summary of 1999-2000 Data: Trace Elements in Mussels, Clams, Snails, Crabs, Fish, and Algae
 (ppm, dry weight)

Station Number	Station Name	Sample Type*	Sample Date	Aluminum	Arsenic	Cadmium	Chromium	Copper	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Zinc
204.5	Tomales Bay/McDonald	ULV	06/09/00	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
205.0	Bodega Harbor/Spud Point Marina	TCM	03/16/00	1062.0	8.8	4.75	4.48	12.1	2.22	13.6	0.207	3.7	3.0	0.019	187.6
306.0	San Francisco Bay/Fort Baker	TCM	03/16/00	2096.0	8.2	4.92	7.39	10.3	5.53	36.4	0.418	6.2	4.0	0.055	174.4
336.0	J. Fitzgerald	RCM	12/07/99	859.0	7.1	5.08	5.36	6.7	1.01	10.9	0.283	3.9	3.5	0.217	98.6
404.0	Sandholdt Bridge	REM	06/21/00	898.0	6.8	3.43	2.94	6.6	0.73	13.6	0.118	3.0	3.0	0.021	200.7
414.0	Pacific Grove	RCM	04/10/00	150.0	10.6	7.38	2.06	5.6	2.76	3.8	0.128	2.8	2.9	0.084	161.1
447.0	Santa Maria River Lagoon	TFC	02/03/00	633.0	13.3	2.44	35.78	113.2	0.40	43.0	0.161	6.5	3.2	0.099	81.5
448.0	Sisquoc River/Santa Maria River Mo	TFC	03/22/00	428.0	12.8	2.73	28.69	92.1	0.32	21.9	0.129	6.0	3.2	0.072	78.4
448.1	Cuyama River/HWY 166	TFC	03/22/00	1125.0	11.2	2.73	45.75	173.6	0.69	38.2	0.164	4.3	3.2	0.146	93.5
448.2	Orcutt Creek/Main Street	TFC	02/03/00	1676.0	13.1	2.32	33.08	109.8	0.84	46.0	0.150	4.4	3.0	0.104	82.1
448.3	Santa Maria River/HWY 1	TFC	02/03/00	4309.0	6.9	1.67	504.78	87.3	2.52	327.9	0.112	382.3	1.6	0.101	48.7
449.5	Jalama	RCM	02/15/00	522.0	9.3	2.54	5.43	7.2	0.95	8.3	0.119	4.1	3.6	0.484	119.8
601.0	LA Harbor/National Steel	TCM	02/02/00	676.0	8.4	7.00	3.89	34.5	8.18	27.9	0.313	1.9	3.8	0.112	305.7
603.3	LA Harbor/Berth 206	TCM	02/02/00	836.0	9.2	10.12	5.00	33.5	8.97	30.5	0.317	2.1	5.9	0.085	278.7
609.4	Long Beach/Queensway Bay	RCM	02/02/00	459.0	5.7	0.49	3.51	9.0	2.72	13.0	ND	3.1	3.9	0.104	94.7
616.0	LA Harbor/Consolidated Slip	TCM	02/02/00	998.0	8.2	7.28	5.88	17.6	11.96	34.8	0.233	2.5	3.1	0.105	276.8
617.9	Cabrillo Beach/Ocean Side	RCM	02/02/00	401.0	12.4	2.44	4.47	8.1	2.38	12.7	0.236	3.2	3.2	2.525	178.6
618.0	LA Harbor/Angels Gate	RCM	02/02/00	729.0	6.7	1.26	2.18	10.3	1.35	18.7	ND	1.2	4.3	0.039	157.1
648.0	Malibu	RCM	03/21/00	1327.0	8.4	2.59	7.47	8.8	1.44	26.5	0.102	6.3	4.7	1.313	147.9
650.0	Santa Monica	RCM	02/02/00	414.0	7.7	0.89	6.57	12.4	2.63	12.1	ND	4.7	3.9	2.070	108.7
662.0	Royal Palms	RCM	02/02/00	514.0	13.4	1.61	4.15	7.5	1.64	18.8	0.102	3.1	3.5	1.409	136.5
713.0	Huntington Harbour/Edinger Street	TCM	02/02/00	1046.0	6.6	3.89	3.59	15.6	5.22	27.0	0.134	2.3	4.3	0.034	216.0
715.0	Huntington Harbor/Warner Ave Bldg	TCM	02/02/00	1027.0	8.4	5.21	3.61	17.5	10.43	53.0	0.143	2.5	3.2	0.042	366.6
723.4	Newport Bay/Turning Basin	TCM	02/02/00	576.0	8.6	9.44	3.35	56.6	4.70	61.3	0.211	1.6	6.1	0.036	385.5
724.0	Newport Bay/Highway 1 Bridge	TCM	02/02/00	1353.0	7.8	7.43	4.68	35.0	4.93	30.2	0.221	2.4	4.8	0.075	367.3
725.0	Newport Bay/Crows Nest	TCM	02/02/00	468.0	7.5	8.19	3.70	97.2	6.69	40.3	0.471	1.4	3.9	0.065	636.3
726.0	Newport Bay/Rhine Channel/Upper	TCM	02/02/00	591.0	11.4	12.78	7.18	209.0	11.28	53.9	0.673	2.5	4.8	0.123	794.8
726.4	Newport Bay/Rhine Channel/End	TCM	02/02/00	592.0	8.2	10.72	7.78	195.9	8.60	64.9	0.612	3.7	4.0	0.116	816.1
726.6	Newport Bay/Mariners Drive	TCM	02/02/00	850.0	7.6	5.79	3.41	11.6	3.19	22.7	0.194	2.3	4.8	0.043	237.7
750.0	Oceanside	RCM	02/01/00	881.0	7.0	0.90	15.00	7.6	0.73	26.1	ND	10.1	2.6	0.171	86.8
883.1	San Diego Bay/Chollas Creek	TCM	02/01/00	1210.0	8.4	5.38	4.41	57.7	8.88	44.3	0.224	2.3	2.8	0.273	377.3
883.6	San Diego Bay/7th Street Channel	TCM	02/01/00	843.0	8.8	6.53	3.60	79.5	10.24	22.1	0.824	1.8	3.7	0.887	338.8
883.8	San Diego Bay/Switzer Creek	TCM	02/01/00	671.0	10.5	13.95	5.14	42.6	15.73	27.5	0.444	3.4	3.0	0.210	420.2
887.0	San Diego Bay/Evans Street	TCM	02/01/00	822.0	7.6	5.10	3.62	31.4	5.15	37.0	0.205	1.7	3.3	0.150	234.7
894.1	SD Bay/Harbor Is/E Basin/Storm Dr2	TCM	02/01/00	828.0	9.0	4.36	3.62	73.6	7.15	43.4	0.273	1.3	3.1	0.245	432.6
895.6	San Diego Bay/Grape St Storm Drain	TCM	02/01/00	718.0	9.1	6.84	4.99	21.9	5.69	24.8	0.231	2.3	4.7	0.159	226.1
898.0	Commercial Basin/Carlton Street	TCM	02/01/00	1162.0	10.9	5.48	4.56	237.0	11.97	33.6	0.996	1.6	3.7	0.290	779.3
899.2	San Diego Bay/Shelter Island	TCM	02/01/00	905.0	8.2	3.94	3.58	13.9	5.03	15.2	0.155	2.0	2.8	0.052	222.8
899.4	San Diego Bay/Shelter Is/Fuel Dock	TCM	02/01/00	481.0	6.5	4.44	2.65	187.0	4.69	10.4	0.422	1.0	2.5	0.302	530.9
901.0	San Diego Bay/Degausing Station	TCM	02/01/00	733.0	7.5	3.61	4.93	8.6	3.31	11.3	0.125	3.1	2.4	0.053	147.7

* Sample Type listed in Table 3.

NA = Not Analyzed

ND = Not Detected

TABLE 4
State Mussel Watch Program
Preliminary Summary of 1997-99 Data: Organic Chemicals in Mussels and Clams (ppb, dry weight)

[illegible][illegible]

TABLE 4
State Mussel Watch Program
Preliminary Summary of 1997-99 Data: Organic Chemicals in Mussels and Clams (ppb, dry weight)

[illegible]

Total Station Endo- Number sulfan	Diaz- Endrin- inon	O,p' Ethion... DDD	p,p' DDD	O,p' DDE	p,p' DDE	O,p' DDT	p,p' DDT	p,p' DDMU	Total DDT	Di-Chloro-Benzophenone	Dieldrin	Endo-sulfan I	Endo-sulfan II	Endo-sulfan sulfate
618.0	ND	6.0	21.9	57.4	688.0	ND	ND	76.2	850.0	NA	4.3	2.4	ND	ND
2.4	ND	ND												
648.0	ND	ND	6.8	6.0	80.3	ND	ND	10.9	104.0	NA	ND	ND	NA	NA
648.0	ND	ND	5.3	5.2	63.3	ND	ND	7.0	80.8	NA	2.5	1.4	NA	NA
1.4	ND	ND												
650.0	ND	ND	6.4	6.7	91.6	ND	ND	11.6	116.0	NA	5.8	ND	NA	NA
650.0	ND	ND	8.4	9.9	99.8	ND	ND	11.0	129.0	NA	6.3	ND	NA	NA
662.0	ND	ND	15.6	18.1	248.0	ND	ND	33.6	316.0	NA	3.2	ND	NA	NA
662.0	ND	8.2	43.1	51.3	545.0	ND	11.9	81.0	740.0	NA	4.0	ND	NA	NA
708.0	ND	10.3	33.4	13.1	418.0	3.0	34.0	26.4	538.0	NA	9.8	ND	ND	ND
708.0	55.8	6.6	19.1	15.9	247.0	ND	5.1	23.1	317.0	NA	5.4	ND	ND	ND
713.0	56.7	9.6	29.8	10.2	316.0	11.6	56.3	15.0	449.0	NA	17.1	ND	ND	ND

TABLE 5
State Mussel Watch Program
Preliminary Summary of 1997-99 Data: Organic Chemicals in Mussels and Clams (ppb, lipid weight)

Total Station Chlor-Number dane	Chlor-pyri-fos thal	Dacthal Station Name	Sample Type*	Sample Date	Aldrin	Chlor-ben-side	alpha-Chlor-dene	cis-Chlor-dane	gamma-Chlor-dene	trans-Chlor-dane	cis-Nona-chlor	trans-Nona-chlor	Oxy-chlor-dane
713.0	Huntington Harbour/Edinger Street	TCM	03/30/99	ND	NA	25.4	246.0	ND	197.0	93.7	240.0	ND	
810.0	77.6 ND												
715.0	Huntington Harbour/Warner Ave Brdg	TCM	03/24/98	ND	NA	38.1	405.0	18.0	320.0	186.0	366.0	32.9	
1360.0	67.3 ND												
715.0	Huntington Harbour/Warner Ave Brdg	TCM	03/30/99	ND	NA	35.4	314.0	ND	354.0	165.0	360.0	23.5	
1200.0	63.3 ND												
721.0	Newport Bay/Entrance	TCM	03/29/99	ND	NA	ND	129.0	ND	103.0	55.6	121.0	ND	
410.0	50.7 ND												
722.0	Newport Bay/Police Docks	RBM	03/24/98	ND	NA	ND	118.0	ND	105.0	57.9	168.0	ND	
449.0	ND ND												
723.4	Newport Bay/Turning Basin	RBM	03/24/98	ND	NA	17.4	180.0	ND	139.0	89.6	239.0	16.5	
681.0	ND ND												
723.4	Newport Bay/Turning Basin	TCM	03/29/99	ND	NA	ND	310.0	ND	219.0	146.0	260.0	31.7	
960.0	135.0 ND												
724.0	Newport Bay/Highway 1 Bridge	TCM	03/24/98	ND	NA	ND	140.0	ND	124.0	64.0	168.0	ND	
497.0	ND ND												
724.0	Newport Bay/Highway 1 Bridge	TCM	03/29/99	ND	NA	30.9	303.0	ND	253.0	150.0	310.0	20.4	
1100.0	121.0 ND												
725.0	Newport Bay/Crows Nest	TCM	03/24/98	ND	NA	21.3	373.0	ND	269.0	134.0	359.0	39.0	
1190.0	ND ND												

Total Station Endo-Number sulfate	Diaz-endrin sulfan	O,p' Ethion DDD	p,p' DDD	O,p' DDE	p,p' DDE	O,p' DDT	p,p' DDT	p,p' DDMS	p,p' DDMU	Total DDT	Di-Chloro-Benzophenone	Diel-drin	Endo-sulfan I	Endo-sulfan II	Endo-sulfan
713.0	ND	99.6	342.0	116.0	2370.0	ND	160.0	NA	168.0	3260.0	NA	197.0	ND	NA	NA
ND	ND	ND													
715.0	1120.0	141.0	466.0	107.0	3850.0	77.0	415.0	NA	181.0	5240.0	NA	243.0	ND	15.9	ND
ND	ND	ND													
715.0	ND	133.0	439.0	129.0	3860.0	ND	106.0	NA	235.0	4900.0	NA	159.0	30.8	ND	ND
30.8	ND	ND													
721.0	ND	89.7	579.0	129.0	3460.0	ND	ND	NA	227.0	4490.0	NA	92.8	12.9	NA	NA
12.9	ND	ND													
722.0	ND	128.0	579.0	93.8	3530.0	122.0	439.0	NA	163.0	5050.0	NA	44.2	ND	ND	NA
ND	ND	ND													
723.4	ND	106.0	448.0	75.9	3290.0	149.0	597.0	NA	138.0	4800.0	NA	58.6	155.0	ND	ND
ND	155.0	ND													
723.4	ND	164.0	944.0	94.1	4330.0	ND	ND	NA	211.0	5730.0	NA	264.0	ND	NA	NA
ND	ND	ND													
724.0	ND	129.0	630.0	84.4	3580.0	107.0	590.0	NA	168.0	5270.0	NA	43.6	106.0	ND	ND
106.0	106.0	ND													
724.0	ND	281.0	1790.0	204.0	9440.0	ND	166.0	NA	456.0	12300.0	NA	180.0	20.8	NA	NA
20.8	ND	ND													
725.0	ND	133.0	717.0	120.0	6370.0	219.0	870.0	NA	140.0	8570.0	NA	393.0	581.0	43.1	NA
624.0	581.0	ND													

TABLE 8
 State Mussel Watch Program
Preliminary Summary of 1997-99 Data: PAHs in Mussels and Clams (ppb, lipid weight)

Station Chrysene Number	Station Fluoranthene Name	Sample Type*	Sample Date	Total PAH	Anthracene	Anthracene, benz (a)	Anthracene, dibenz (a,h)	Biphenyl
648.0	Malibu	RCM	03/30/99	10300.0	648.0	1010.0	ND	ND
816.0	1610.0							
650.0	Santa Monica	RCM	11/03/97	6810.5	261.0	1240.0	ND	ND
700.0	685.0							
650.0	Santa Monica	RCM	03/29/99	1700.0	ND	252.0	ND	ND
166.0	284.0							
662.0	Royal Palms	RCM	03/24/98	7962.6	256.0	878.0	ND	ND
695.0	569.0							
662.0	Royal Palms	RCM	03/29/99	1990.0	ND	ND	ND	ND
ND	506.0							
708.0	Anaheim Bay/Navy Marsh	TCM	03/24/98	3046.8	ND	342.0	ND	ND
324.0	786.0							
713.0	Huntington Harbour/Edinger Street	TCM	03/24/98	5102.7	382.0	803.0	ND	ND
926.0	1010.0							
713.0	Huntington Harbour/Edinger Street	TCM	03/30/99	7930.0	485.0	897.0	ND	ND
1140.0	1350.0							
715.0	Huntington Harbour/Warner Ave Brdg	TCM	03/24/98	1534.1	ND	238.0	ND	ND
400.0	404.0							
715.0	Huntington Harbour/Warner Ave Brdg	TCM	03/30/99	4560.0	138.0	345.0	ND	ND
504.0	749.0							

Station Naphthalene, Number 2,3,5-trimethyl	Fluoranthene, Naphthene, benzo (b) ace	Fluoranthene, benzo (k)	Fluorene	Naphthalene	Naphthalene, 1-methyl	Naphthalene, 2-methyl	Naphthalene, 2,6-dimethyl
648.0	557.0	156.0	310.0	ND	307.0	254.0	128.0
ND	318.0						
650.0	172.0	68.7	172.0	ND	ND	622.0	ND
ND	ND						
650.0	ND	ND	ND	ND	239.0	315.0	ND
ND	ND						
662.0	ND	ND	ND	ND	264.0	331.0	ND
ND	ND						
662.0	ND	ND	ND	ND	432.0	323.0	ND
ND	ND						
708.0	172.0	221.0	ND	ND	ND	ND	ND
138.0	109.0						
713.0	140.0	ND	ND	ND	189.0	160.0	ND
ND	ND						
713.0	424.0	ND	166.0	ND	384.0	407.0	ND
ND	ND						
715.0	ND	ND	ND	ND	ND	ND	ND
ND	ND						
715.0	385.0	170.0	ND	ND	300.0	225.0	ND
ND	ND						

Station Pyrene,	Naphthylene, Pyrene,	Perylene	Perylene,	Phenanthrene	Phenanthrene,	Pyrene	Pyrene,
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TABLE 7
State Mussel Watch Program
Preliminary Summary of 1997-99 Data: PAHs in Mussels and Clams (ppb, dry weight)

Station Chrysene Number	Station Fluoranthene Name	Sample Type*	Sample Date	Total PAH	Anthracene	Anthracene, benz (a)	Anthracene, dibenz (a,h)	Biphenyl
715.0	Huntington Harbour/Warner Ave Brdg	TCM	03/30/99	346.0	10.5	26.2	ND	ND
38.2	56.8							
721.0	Newport Bay/Entrance	TCM	03/29/99	248.0	14.5	21.8	ND	ND
23.7	29.1							
722.0	Newport Bay/Police Docks	RBM	03/24/98	919.0	25.5	44.1	ND	ND
54.6	86.9							
723.4	Newport Bay/Turning Basin	RBM	03/24/98	1180.0	25.3	74.5	ND	18.9
124.0	288.0							
723.4	Newport Bay/Turning Basin	TCM	03/29/99	363.0	11.2	29.6	ND	ND
49.0	59.8							
724.0	Newport Bay/Highway 1 Bridge	TCM	03/24/98	730.0	21.0	30.6	ND	ND
42.1	92.7							
724.0	Newport Bay/Highway 1 Bridge	TCM	03/29/99	310.0	ND	18.7	ND	ND
30.4	33.6							
725.0	Newport Bay/Crows Nest	TCM	03/24/98	427.0	22.3	27.4	ND	12.0
27.4	35.9							
725.0	Newport Bay/Crows Nest	TCM	03/29/99	335.0	ND	23.4	ND	ND
27.4	38.0							
726.4	Newport Bay/Rhine Channel/End	TCM	03/24/98	178.0	13.4	23.6	ND	ND
25.5	39.7							

Station Naphthalene, Number 2,3,5-trimethyl	Fluoranthene, Naphthene, benzo (b) ace	Fluoranthene, benzo (k)	Fluorene	Naphthalene	Naphthalene, 1-methyl	Naphthalene, 2-methyl	Naphthalene, 2,6-dimethyl
715.0	29.2	12.9	ND	ND	22.8	17.1	ND
ND	ND						
721.0	ND	ND	ND	ND	21.1	22.8	10.5
ND	ND						
722.0	50.8	35.1	11.3	ND	22.1	ND	14.2
28.3	ND						
723.4	66.8	47.2	15.5	ND	29.4	ND	15.5
40.8	ND						
723.4	13.4	ND	ND	ND	27.1	26.0	14.9
ND	ND						
724.0	ND	10.3	ND	ND	14.6	20.9	18.7
25.8	ND						
724.0	21.6	10.8	ND	ND	27.6	32.8	11.7
ND	ND						
725.0	ND	ND	ND	ND	30.1	30.1	ND
ND	ND						
725.0	25.1	10.2	ND	ND	23.6	22.8	10.2
ND	ND						
726.4	18.2	ND	ND	ND	16.2	ND	ND
ND	ND						

TABLE 7
 State Mussel Watch Program
Preliminary Summary of 1997-99 Data: PAHs in Mussels and Clams (ppb, dry weight)

Station Chrysene Number	Station Fluoranthene Name	Sample Type*	Sample Date	Total PAH	Anthracene	Anthracene, benz (a)	Anthracene, dibenz (a,h)	Biphenyl
648.0	Malibu	RCM	11/03/97	1330.0	27.0	154.0	ND	ND
145.0	281.0							
648.0	Malibu	RCM	03/30/99	935.0	59.0	92.0	ND	ND
74.2	147.0							
650.0	Santa Monica	RCM	11/03/97	452.0	17.3	82.0	ND	ND
46.5	45.5							
650.0	Santa Monica	RCM	03/29/99	165.0	ND	24.4	ND	ND
16.1	27.5							
662.0	Royal Palms	RCM	03/24/98	324.0	10.4	35.7	ND	ND
28.2	23.1							
662.0	Royal Palms	RCM	03/29/99	107.0	ND	ND	ND	ND
ND	27.3							
708.0	Anaheim Bay/Navy Marsh	TCM	03/24/98	290.0	ND	32.5	ND	ND
30.8	74.6							
713.0	Huntington Harbour/Edinger Street	TCM	03/24/98	403.0	30.2	63.5	ND	ND
73.4	79.7							
713.0	Huntington Harbour/Edinger Street	TCM	03/30/99	518.0	31.7	58.6	ND	ND
73.9	88.7							
715.0	Huntington Harbour/Warner Ave Brdg	TCM	03/24/98	133.0	ND	20.6	ND	ND
34.6	35.0							

Station Naphthalene, Number	Fluoranthene, Naphthene, benzo (b) 2,3,5-trimethyl ace	Fluoranthene, benzo (k)	Fluorene	Naphthalene	Naphthalene, 1-methyl	Naphthalene, 2-methyl	Naphthalene, 2,6-dimethyl
648.0	101.0	40.5	18.9	ND	ND	ND	ND
ND	ND						
648.0	50.7	14.2	28.2	ND	27.9	23.1	11.6
ND	28.9						
650.0	11.4	4.6	11.4	ND	ND	41.3	ND
ND	ND						
650.0	ND	ND	ND	ND	23.1	30.5	ND
ND	ND						
662.0	ND	ND	ND	ND	10.7	13.4	ND
ND	ND						
662.0	ND	ND	ND	ND	23.3	17.4	ND
ND	ND						
708.0	16.3	21.0	ND	ND	ND	ND	ND
13.1	10.4						
713.0	11.1	ND	ND	ND	14.9	12.7	ND
ND	ND						
713.0	27.7	ND	10.8	ND	25.1	26.6	ND
ND	ND						
715.0	ND	ND	ND	ND	ND	ND	ND
ND	ND						

TABLE 6
 State Mussel Watch Program
Preliminary Summary of 1997-99 Data: PAHs in Mussels and Clams (ppb, wet weight)

Station Chrysene Number	Station Fluoranthene Name	Sample Type*	Sample Date	Total PAH	Anthracene	Anthracene, benz (a)	Anthracene, dibenz (a,h)	Biphenyl	
715.0 8.0	Huntington Harbour/Warner Ave Brdg	TCM	03/30/99	48.8	1.5	3.7	ND	ND	5.4
721.0 5.5	Newport Bay/Entrance	TCM	03/29/99	46.7	2.7	4.1	ND	ND	4.5
722.0 9.2	Newport Bay/Police Docks	RBM	03/24/98	97.4	2.7	4.7	ND	ND	5.8
723.4 26.2	Newport Bay/Turning Basin	RBM	03/24/98	107.0	2.3	6.8	ND	1.7	11.3
723.4 7.2	Newport Bay/Turning Basin	TCM	03/29/99	43.6	1.3	3.5	ND	ND	5.9
724.0 10.0	Newport Bay/Highway 1 Bridge	TCM	03/24/98	78.8	2.3	3.3	ND	ND	4.6
724.0 4.8	Newport Bay/Highway 1 Bridge	TCM	03/29/99	44.5	ND	2.7	ND	ND	4.4
725.0 4.3	Newport Bay/Crows Nest	TCM	03/24/98	51.7	2.7	3.3	ND	1.5	3.3
725.0 5.7	Newport Bay/Crows Nest	TCM	03/29/99	49.9	ND	3.5	ND	ND	4.1
726.4 5.0	Newport Bay/Rhine Channel/End	TCM	03/24/98	22.7	1.7	3.0	ND	ND	3.2

Station Naphthalene, Number trimethyl	Fluoranthene, Naphthene, benzo (b) ace	Fluoranthene, benzo (k)	Fluorene	Naphthalene	Naphthalene, 1-methyl	Naphthalene, 2-methyl	Naphthalene, 2,6-dimethyl	Naphthalene, 2,3,5-
715.0 ND	4.1	1.8	ND	ND	3.2	2.4	ND	ND
721.0 ND	ND	ND	ND	ND	4.0	4.3	2.0	ND
722.0 ND	5.4	3.7	1.2	ND	2.3	ND	1.5	3.0
723.4 ND	6.1	4.3	1.4	ND	2.7	ND	1.4	3.7
723.4 ND	1.6	ND	ND	ND	3.3	3.1	1.8	ND
724.0 ND	ND	1.1	ND	ND	1.6	2.3	2.0	2.8
724.0 ND	3.1	1.6	ND	ND	4.0	4.7	1.7	ND
725.0 ND	ND	ND	ND	ND	3.6	3.6	ND	ND
725.0 ND	3.7	1.5	ND	ND	3.5	3.4	1.5	ND
726.4 ND	2.3	ND	ND	ND	2.1	ND	ND	ND

Station Pyrene,	Naphthylene,	Perylene	Perylene,	Phenanthrene	Phenanthrene,	Pyrene	Pyrene,	Pyrene,
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TABLE 6
 State Mussel Watch Program
Preliminary Summary of 1997-99 Data: PAHs in Mussels and Clams (ppb, wet weight)

Station Chrysene Number	Station Fluoranthene Name	Sample Type*	Sample Date	Total PAH	Anthracene	Anthracene, benz (a)	Anthracene, dibenz (a,h)	Biphenyl	
648.0	Malibu	RCM	11/03/97	204.0	4.1	23.6	ND	ND	22.2
43.0									
648.0	Malibu	RCM	03/30/99	156.0	9.9	15.4	ND	ND	12.4
24.5									
650.0	Santa Monica	RCM	11/03/97	84.1	3.2	15.3	ND	ND	8.7
8.5									
650.0	Santa Monica	RCM	03/29/99	31.8	ND	4.7	ND	ND	3.1
5.3									
662.0	Royal Palms	RCM	03/24/98	40.5	1.3	4.5	ND	ND	3.5
2.9									
662.0	Royal Palms	RCM	03/29/99	15.3	ND	ND	ND	ND	ND
3.9									
708.0	Anaheim Bay/Navy Marsh	TCM	03/24/98	52.7	ND	5.9	ND	ND	5.6
13.6									
713.0	Huntington Harbour/Edinger Street	TCM	03/24/98	55.7	4.2	8.8	ND	ND	10.1
11.0									
713.0	Huntington Harbour/Edinger Street	TCM	03/30/99	76.1	4.7	8.6	ND	ND	10.9
13.0									
715.0	Huntington Harbour/Warner Ave Brdg	TCM	03/24/98	20.7	ND	3.2	ND	ND	5.4
5.5									

Station Naphthalene, Number trimethyl	Fluoranthene, benzo (b) ace	Fluoranthene, Naphthene, benzo (k)	Fluorene	Naphthalene	Naphthalene, 1-methyl	Naphthalene, 2-methyl	Naphthalene, 2,6-dimethyl	2,3,5-
648.0	15.5	6.2	2.9	ND	ND	ND	ND	ND
ND								
648.0	8.5	2.4	4.7	ND	4.7	3.9	1.9	ND
4.8								
650.0	2.1	0.8	2.1	ND	ND	7.7	ND	ND
ND								
650.0	ND	ND	ND	ND	4.5	5.9	ND	ND
ND								
662.0	ND	ND	ND	ND	1.3	1.7	ND	ND
ND								
662.0	ND	ND	ND	ND	3.3	2.5	ND	ND
ND								
708.0	3.0	3.8	ND	ND	ND	ND	ND	2.4
1.9								
713.0	1.5	ND	ND	ND	2.1	1.8	ND	ND
ND								
713.0	4.1	ND	1.6	ND	3.7	3.9	ND	ND
ND								
715.0	ND	ND	ND	ND	ND	ND	ND	ND
ND								

Station Pyrene,	Naphthylene,	Perylene	Perylene,	Phenanthrene	Phenanthrene,	Pyrene	Pyrene,	Pyrene,
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TABLE 1
 State Mussel Watch Program
 Preliminary Summary of 1999-2000 Data: Trace Elements in Mussels, Clams, Snails, Crabs, Fish, and Algae
 (ppm, wet weight)

Station Number	Station Name	Sample Type*	Sample Date	Aluminum	Arsenic	Cadmium	Chromium	Copper	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Zinc
204.5	Tomales Bay/McDonald	ULV	06/09/00	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA
205.0	Bodega Harbor/Spud Point Marina	TCM	03/16/00	194.0	1.6	0.87	0.82	2.22	0.41	2.49	0.038	0.67	0.55	0.003	34.3
306.0	San Francisco Bay/Fort Baker	TCM	03/16/00	305.0	1.2	0.72	1.08	1.50	0.81	5.29	0.061	0.90	0.59	0.008	25.4
336.0	J. Fitzgerald	RCM	12/07/99	148.0	1.2	0.88	0.92	1.15	0.17	1.88	0.049	0.67	0.60	0.037	17.0
404.0	Sandholdt Bridge	RBM	06/21/00	157.3	1.2	0.60	0.51	1.15	0.13	2.38	0.021	0.52	0.52	0.004	35.1
414.0	Pacific Grove	RCM	04/10/00	22.8	1.6	1.13	0.31	0.85	0.42	0.59	0.020	0.42	0.44	0.013	24.6
447.0	Santa Maria River Lagoon	TFC	02/03/00	70.2	1.5	0.27	3.97	12.56	0.05	4.77	0.018	0.72	0.36	0.011	9.0
448.0	Sisquoc River/Santa Maria River Mo	TFC	03/22/00	38.9	1.2	0.25	2.61	8.38	0.03	1.99	0.012	0.55	0.29	0.007	7.1
448.1	Cuyama River/HWY 166	TFC	03/22/00	161.7	1.6	0.39	6.57	24.95	0.10	5.50	0.024	0.62	0.46	0.021	13.4
448.2	Orcutt Creek/Main Street	TFC	02/03/00	190.4	1.5	0.26	3.76	12.48	0.10	5.23	0.017	0.50	0.35	0.012	9.3
448.3	Santa Maria River/HWY 1	TFC	02/03/00	1384.8	2.2	0.54	162.22	28.07	0.81	105.39	0.036	122.86	0.53	0.033	15.6
449.5	Jalama	RCM	02/15/00	84.5	1.5	0.41	0.88	1.17	0.15	1.34	0.019	0.67	0.59	0.078	19.4
601.0	LA Harbor/National Steel	TCM	02/02/00	92.3	1.1	0.96	0.53	4.70	1.12	3.81	0.043	0.26	0.52	0.015	41.7
603.3	LA Harbor/Berth 206	TCM	02/02/00	103.7	1.1	1.25	0.62	4.15	1.11	3.78	0.039	0.26	0.73	0.011	34.5
609.4	Long Beach/Queensway Bay	RCM	02/02/00	71.1	0.9	0.08	0.54	1.40	0.42	2.01	ND	0.48	0.60	0.016	14.7
616.0	LA Harbor/Consolidated Slip	TCM	02/02/00	143.6	1.2	1.05	0.85	2.53	1.72	5.01	0.034	0.35	0.45	0.015	39.8
617.9	Cabrillo Beach/Ocean Side	RCM	02/02/00	54.4	1.7	0.33	0.61	1.09	0.32	1.72	0.032	0.43	0.43	0.342	24.2
618.0	LA Harbor/Angels Gate	RCM	02/02/00	103.4	0.9	0.18	0.31	1.46	0.19	2.65	ND	0.17	0.61	0.006	22.3
648.0	Malibu	RCM	03/21/00	191.9	1.2	0.38	1.08	1.27	0.21	3.83	0.015	0.91	0.68	0.190	21.4
650.0	Santa Monica	RCM	02/02/00	71.2	1.3	0.15	1.13	2.13	0.45	2.09	ND	0.81	0.66	0.356	18.7
662.0	Royal Palms	RCM	02/02/00	85.6	2.2	0.27	0.69	1.25	0.27	3.13	0.017	0.52	0.59	0.235	22.7
713.0	Huntington Harbour/Edinger Street	TCM	02/02/00	165.5	1.0	0.62	0.57	2.47	0.82	4.27	0.021	0.36	0.67	0.005	34.2
715.0	Huntington Harbor/Warner Ave Brg	TCM	02/02/00	146.4	1.2	0.74	0.51	2.49	1.49	7.56	0.020	0.35	0.46	0.006	52.2
723.4	Newport Bay/Turning Basin	TCM	02/02/00	68.6	1.0	1.12	0.40	6.73	0.56	7.29	0.025	0.19	0.72	0.004	45.9
724.0	Newport Bay/Highway 1 Bridge	TCM	02/02/00	180.7	1.0	0.99	0.62	4.68	0.66	4.03	0.030	0.32	0.63	0.010	49.1
725.0	Newport Bay/Crows Nest	TCM	02/02/00	68.9	1.1	1.21	0.54	14.31	0.98	5.94	0.069	0.21	0.57	0.010	93.7
726.0	Newport Bay/Rhine Channel/Upper	TCM	02/02/00	53.8	1.0	1.16	0.65	19.02	1.03	4.90	0.061	0.23	0.44	0.011	72.3
726.4	Newport Bay/Rhine Channel/End	TCM	02/02/00	66.6	0.9	1.21	0.88	22.06	0.97	7.31	0.069	0.41	0.44	0.013	91.9
726.6	Newport Bay/Mariners Drive	TCM	02/02/00	97.1	0.9	0.66	0.39	1.32	0.37	2.60	0.022	0.26	0.55	0.005	27.2
750.0	Oceanside	RCM	02/01/00	160.9	1.3	0.16	2.74	1.38	0.13	4.76	ND	1.84	0.47	0.031	15.9
883.1	San Diego Bay/Chollas Creek	TCM	02/01/00	159.4	1.1	0.71	0.58	7.60	1.17	5.84	0.030	0.30	0.37	0.036	49.7
883.6	San Diego Bay/7th Street Channel	TCM	02/01/00	96.7	1.0	0.75	0.41	9.11	1.17	2.54	0.094	0.20	0.42	0.102	38.9
883.8	San Diego Bay/Switzer Creek	TCM	02/01/00	80.1	1.3	1.66	0.61	5.08	1.88	3.29	0.053	0.40	0.36	0.025	50.2
887.0	San Diego Bay/Evans Street	TCM	02/01/00	99.5	0.9	0.62	0.44	3.80	0.62	4.47	0.025	0.21	0.40	0.018	28.4
894.1	SD Bay/Harbor Is/E Basin/Storm Dr2	TCM	02/01/00	119.8	1.3	0.63	0.52	10.66	1.03	6.28	0.040	0.19	0.45	0.035	62.7
895.6	San Diego Bay/Grape St Storm Drain	TCM	02/01/00	77.1	1.0	0.74	0.54	2.35	0.61	2.66	0.025	0.24	0.51	0.017	24.3
898.0	Commercial Basin/Carlton Street	TCM	02/01/00	175.3	1.6	0.83	0.69	35.76	1.81	5.07	0.150	0.24	0.55	0.044	117.6
899.2	San Diego Bay/Shelter Island	TCM	02/01/00	158.7	1.4	0.69	0.63	2.43	0.88	2.66	0.027	0.35	0.50	0.009	39.1
899.4	San Diego Bay/Shelter Is/Fuel Dock	TCM	02/01/00	79.0	1.1	0.73	0.43	30.74	0.77	1.71	0.069	0.17	0.41	0.050	87.3
901.0	San Diego Bay/Degaussing Station	TCM	02/01/00	126.4	1.3	0.62	0.85	1.48	0.57	1.95	0.022	0.53	0.41	0.009	25.5

* Sample Type listed in Table 3.

NA = Not Analyzed

ND = Not Detected

TABLE 1
 State Mussel Watch Program
 Summary of 1997-98 Data: Trace Elements in Mussels and Clams
 (ppm, wet weight)

Station Silver Number Selenium	Station Name Zinc	Sample Type*	Sample Date	Aluminum	Arsenic	Cadmium	Chromium	Copper	Lead	Manganese	Mercury	Nickel
601.0	LA Harbor/National Steel	TCM	03/24/98	58.5	1.6	1.32	0.72	1.79	0.88	4.15	0.084	0.34
0.08	0.008 41.8											
616.0	LA Harbor/Consolidated Slip	TCM	03/24/98	90.8	0.8	1.25	1.20	2.81	1.38	6.24	0.050	0.63
0.27	0.014 46.7											
617.9	Cabrillo Beach/Ocean Side	RCM	03/24/98	138.6	NA	0.31	0.88	1.62	0.41	3.66	0.028	0.59
NA	0.586 30.7											
618.0	LA Harbor/Angels Gate	RBM	11/04/97	90.9	1.5	0.10	0.44	1.09	0.14	2.45	0.010	0.23
NA	0.003 15.6											
648.0	Malibu	RCM	11/03/97	67.5	1.5	0.31	0.41	0.79	0.10	2.17	0.012	0.27
NA	0.015 15.6											
650.0	Santa Monica	RCM	11/03/97	77.3	NA	0.14	0.78	2.03	0.51	3.14	0.027	0.46
NA	0.454 22.7											
662.0	Royal Palms	RCM	03/24/98	55.1	NA	0.32	5.70	1.15	0.31	2.95	0.034	3.51
NA	0.547 22.5											
708.0	Anaheim Bay/Navy Marsh	TCM	03/24/98	131.4	1.5	0.28	1.83	1.79	0.40	3.41	0.025	0.88
0.29	0.500 31.1											
713.0	Huntington Harbour/Edinger Street	TCM	03/24/98	135.6	1.4	1.04	0.68	3.31	0.94	5.35	0.030	0.32
0.29	0.010 59.3											
715.0	Huntington Harbour/Warner Ave Brdg	TCM	03/24/98	46.1	1.4	0.75	0.71	1.68	0.96	5.35	0.026	0.43
0.30	0.010 47.6											
722.0	Newport Bay/Police Docks	RBM	03/24/98	211.7	1.1	1.14	0.66	2.04	0.61	6.40	0.034	0.34
0.27	0.007 56.2											
723.4	Newport Bay/Turning Basin	RBM	03/24/98	95.7	0.8	0.61	2.22	4.64	0.39	13.00	0.027	1.39
0.22	0.005 36.9											
724.0	Newport Bay/Highway 1 Bridge	TCM	03/24/98	150.0	1.4	0.87	1.40	2.16	0.50	6.75	0.031	0.79
0.31	0.005 40.0											
725.0	Newport Bay/Crows Nest	TCM	03/24/98	15.4	1.6	0.12	0.08	1.83	0.08	0.98	0.009	0.04
0.31	0.001 8.8											
726.4	Newport Bay/Rhine Channel/End	TCM	03/24/98	57.5	1.4	0.79	0.54	11.30	0.45	6.59	0.044	0.19
NA	0.007 60.0											
726.6	Newport Bay/Mariners Drive	TCM	03/24/98	69.0	1.7	0.84	0.46	1.47	0.46	5.42	0.027	0.31
0.25	0.005 33.4											
750.0	Oceanside	RCM	11/03/97	98.3	0.8	0.14	0.84	0.87	0.08	2.87	0.012	0.38
0.30	0.005 14.2											
883.3	San Diego Bay/Chollas Creek/End	TCM	03/25/98	46.2	1.4	0.68	0.67	2.60	1.23	5.41	0.032	0.30
0.26	0.015 59.8											
885.3	San Diego Bay/7th Street Ch/Mid	TCM	03/25/98	71.4	1.4	0.71	0.51	4.03	1.89	6.73	0.030	0.19
NA	0.030 67.2											
887.0	San Diego Bay/Evans Street	TCM	03/25/98	84.8	1.5	1.00	0.56	3.53	1.36	6.63	0.049	0.20
0.31	0.028 61.4											
893.0	San Diego Bay/Laurel Street	TCM	03/25/98	53.6	1.3	0.77	0.80	1.86	1.13	2.65	0.043	0.31
0.29	0.013 43.8											
894.1	SD Bay/Harbor Is/E Basin/Storm Dr2	TCM	03/25/98	107.3	1.4	0.72	0.70	6.89	1.26	5.45	0.058	0.18
0.55	0.032 75.3											
898.5	SD Bay/N Island/Aircraft Platform	TCM	03/25/98	85.2	1.7	0.69	0.59	2.49	1.05	4.64	0.039	0.23
NA	0.020 52.9											
899.2	San Diego Bay/Shelter Island	TCM	03/25/98	139.7	1.4	0.71	1.12	2.45	0.78	2.85	0.032	0.56
0.35	0.012 46.5											

* RCM = Resident California Mussel

TFC = Transplanted Freshwater Clam

NA = Not Analyzed

TABLE 3
State Mussel Watch Program
Preliminary Summary of 1997-99 Data: Organic Chemicals in Mussels and Clams (ppb, wet weight)

Total Chlor-Chlor-Station Number	Chlor-pyrifos	Dacthal Station Name	Sample Type*	Sample Date	Aldrin	alpha-Chlor-dene	cis-Chlor-dane	gamma-Chlor-dene	trans-Chlor-dane	cis-Nona-chlor	trans-Nona-chlor	Oxy-chlor-dane
713.0 7.7	0.7	Huntington Harbour/Edinger Street ND	TCM	03/30/99	ND	0.2	2.3	ND	1.9	0.9	2.4	ND
715.0 18.4	0.9	Huntington Harbour/Warner Ave Brdg ND	TCM	03/24/98	ND	0.5	5.5	0.2	4.3	2.5	4.9	0.4
715.0 13.0	0.7	Huntington Harbour/Warner Ave Brdg ND	TCM	03/30/99	ND	0.4	3.4	ND	3.8	1.8	3.8	0.3
721.0 6.3	0.8	Newport Bay/Entrance ND	TCM	03/29/99	ND	ND	2.0	ND	1.6	0.9	1.9	ND
722.0 3.4	ND	Newport Bay/Police Docks ND	RBM	03/24/98	ND	ND	0.9	ND	0.8	0.4	1.3	ND
723.4 4.7	ND	Newport Bay/Turning Basin ND	RBM	03/24/98	ND	0.1	1.2	ND	1.0	0.6	1.6	0.1
723.4 4.8	0.7	Newport Bay/Turning Basin ND	TCM	03/29/99	ND	ND	1.5	ND	1.1	0.7	1.3	0.2
724.0 3.6	ND	Newport Bay/Highway 1 Bridge ND	TCM	03/24/98	ND	ND	1.0	ND	0.9	0.5	1.2	ND
724.0 11.0	1.2	Newport Bay/Highway 1 Bridge ND	TCM	03/29/99	ND	0.3	3.1	ND	2.6	1.5	3.2	0.2
725.0 8.4	ND	Newport Bay/Crows Nest ND	TCM	03/24/98	ND	0.1	2.6	ND	1.9	0.9	2.5	0.3

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HUNTINGTON HARBOUR

Santa Ana Region 8
2001 WQA/303 D List Update
Supporting Data
Huntington Harbor
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STATION	DATE	TIME	Depth feet	EC umhos	Turb NTU	pH	NO3 mg/L	NH3 mg/L	TKN mg/L	PO4 mg/L	TSS mg/L	VSS mg/L	Cd µg/L	Cr µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
HUNWAR	8/13/91	12:00		51000	0.4	7.9	<0.20	0.70	<0.10	0.10	11	<5							
	6/30/92	11:50		50000	2.0	7.7	<0.20	<0.10	0.80	0.20	25	12							
	11/18/92	12:00	3.8	50000	1.9	8.0	0.14	0.44	0.50	0.31	91	22							
	12/7/92	11:15 S		14000	130.0	8.2	1.80	0.37	1.10	2.00	300	35	<20	<30	<20	17	<40	<10	77
	12/7/92	13:00 S	12.5	12000	120.0	8.1	2.00	0.48	2.70	3.90	330	36	<20	<30	<41	24	<40	11	150
	12/9/92	11:00 S		26000	6.8	7.9	1.20	0.37	0.53	0.55	58	24	<20	<30	<20	<2	<40	11	52
	12/11/92	11:15 S		41000	1.9	7.9	<0.20	0.42	0.56	0.29	64	19	<20	<30	<20	<4	<40	<10	50
	12/11/92	11:15 S	14.8	46000	4.0	8.0	<0.20	0.39	0.54	0.37	90	24	<20	<30	<20	<4	<40	11	26
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<20	<30	>20.5	>12	<40	11	88
	1/8/93	11:00 S		18000	13.0	7.9	1.30	0.25	0.63	0.49	52	21	<20	<30	<20	<2	<40	<10	37
	1/8/93	11:00 S	11.2	27000	9.8	8.0	1.00	0.34	0.68	0.49	57	17	<20	<30	<20	<2	<40	<10	39
	1/10/93	11:45 S		25000	2.1	7.8	1.40	0.34	0.71	0.40	39	15	<20	<30	<20	<2	<40	<10	40
	1/10/93	11:45 S	17.1	40000	2.6	8.0	0.40	0.45	0.66	0.18	71	8	<20	<30	<20	<2	<40	13	20
	1/12/93	13:45 S		35000	1.2	8.0	0.89	0.40	0.87	0.22	110	30	<20	<30	<20	<2	<40	11	48
	1/12/93	13:45 S	15.4	45000	12.0	8.0	0.37	0.48	0.77	0.37	120	29	<20	<30	<20	<2	<40	14	26
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<20	<30	<20	<2	<40	>9	28.3
	6/15/93	10:15		48000	2.8	7.9	<0.20	0.41	0.69	0.26	120	38							
	10/21/93	12:05 S		46000	1.5	7.9	<0.20	0.34	0.86	0.19	120	38							
	2/17/94	9:20 S		24000	15.0	7.8	1.90	0.45	0.80	1.60	150	<5	<5	<10	<20	4	<40	<10	41
	2/17/94	9:20 S	11.5										<5	<10	<20	3.7	<40	<10	44
	2/19/94	11:15 S		24000	18.0	6.9	2.10	0.37	1.50	0.84	140	13	<5	<10	2.8	<2	<40	<10	32
	2/19/94	11:15 S	14.1										<5	<10	9.4	3.5	<40	<10	33
	2/21/94	9:30 S		27000	9.8	7.8	1.70	0.28	1.70	0.64	150	22	<5	16	<20	<2	<40	<10	20
	2/21/94	9:30 S	12.1										<5	10	<20	<2	<40	<10	38
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<5	>3.3	>3	>2.4	<40	<10	38.3
	3/19/94	9:10 S		26000	46.0	7.9	2.70	0.55	1.90	1.70	89	68	<5	<10	<20	5.5	<40	<10	38
	3/19/94	9:10 S	11.2										<5	17	63	39	<40	<10	250
	3/21/94	10:45 S		40000	3.5	7.9	0.65	0.39	<0.20	<0.20	72	17	<5	<10	<20	<2	<40	16	140
	3/21/94	10:45 S	9.5										<5	<10	<20	<2	<40	17	32
	3/23/94	11:00 S		45000	3.6	8.0	0.41	0.25	0.23	0.42	58	16	<5	<10	<20	<2	<40	18	40
	3/23/94	11:00 S	8.6										<5	<10	<20	<2	<40	18	60
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<5	>5.7	>21	>13	<40	>11.7	114

HUNTINGTON HARBOUR

STATION	DATE	TIME		Depth feet	EC umhos	Turb NTU	pH	NO3 mg/L	NH3 mg/L	TKN mg/L	PO4 mg/L	TSS mg/L	VSS mg/L	Cd µg/L	Cr µg/L	Page µg/L	µg/L	µg/L	µg/L	µg/L	
HUNWAR	4/13/94	10:30	S		47000	1.1	8.0	<0.20	0.40	1.50	0.48	85	40								
	11/8/94	11:30			51000	0.5	8.1	<0.20	<0.10	0.63	0.54	100	25								
	11/10/94	12:00	S		21000	48.0	7.9	5.00	0.59	1.80	0.58	89	22	<1	<10	8.1	8.2	<40	<0.3	40	
	11/10/94	12:05	S	13.8										<1	<10	9.2	4	<40	<0.3	60	
	11/12/94	8:30	S		34000	2.4	7.3	3.40	0.27	1.60	0.44	75	<5	<1	<10	35	<2	<40	<0.3	54	
	11/12/94	8:35	S	13.8										<1	<10	28	9.1	<40	<0.3	82	
	11/14/94	11:00	S		47000	0.5	7.8	0.81	0.33	0.97	0.33	<5	<5	<1	<10	8.6	<2	<40	<2	62	
	11/14/94	11:05	S	12.6										<1	<10	3	<2	<40	<2	110	
	4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)														<1	<10	13.3	>1.3	<40	<0.86	84
	3/11/95	9:00	S		9700	40.0	7.9	1.50	0.15	0.99	1.00	68	16	<1	<10	12	8	<40	<1	40	
	3/11/95	9:05	S	13.1										<1	<10	7.7	2.2	55	<1	41	
	3/13/95	9:30	S		21000	7.0	7.8	1.30	0.16	0.79	0.51	36	17	<1	<10	5.9	<2	<40	<1	37	
	3/13/95	9:35	S	11.5										<1	<10	<4	<2	45	<1	36	
	3/15/95	11:45	S		41000	3.3	8.2	1.10	0.31	0.89	0.46	56	34	<1	<10	5.5	<2	46	<1	16	
	3/15/95	11:50	S	10.8										<1	<10	<4	<2	<40	<1	36	
	4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)														<1	<10	>2.6	>0.67	>33.3	<1	38
	5/10/95	10:00				52000	1.6	7.8	<0.20	0.49	0.78	0.26	60	29							
	10/11/95	10:45							<0.20	0.21	1.1	0.28									
	12/13/95	10:00	S			14000	27.0	7.2	6.90	1.50	2.50	1.10	59	21	<1	<10	6	5	<40	<1	47
	12/13/95	10:05	S	7.0		41000									<1	<10	8	<2	<40	<1	49
	12/15/95	9:30	S			37000	2.8	7.3	1.40	0.70	1.40	0.48	52	16	<1	<10	8	<2	<40	<1	28
	12/15/95	9:35	S	13.0		40000									<1	<10	8	<2	<40	<1	20
	12/17/95	8:45	S			43000	1.5	7.8	0.70	0.62	1.10	0.39	86	27	<1	<10	<5	<2	<40	<1	110
	12/17/95	8:50	S	13.4		44000									<1	<10	<5	<2	<40	<1	23
	4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)														<1	<10	>5.3	<2	<40	<1	30.7
	3/5/96	8:45	S			21000	15.0	8.1	1.90	0.33	0.84	0.46	37	11	<1	<5	4	<2	<4	1.5	37
	3/5/96	8:50	S	13.0											<1	<5	8	<2	<4	<1	46
	3/7/96	9:00	S			27000	1.5	8.1	1.40	1.20	0.62	0.32	44	13	<1	18	21	3	5	<1	72
	3/7/96	9:05	S	10.0											<1	5	10	10	9	<1	71
	3/9/96	10:00	S			36000	1.3	8.1	0.50	0.39	0.57	0.30	95	25	<1	6	3	<4	<4	<1	26
3/9/96	10:05	S	9.2											<1	<5	3	5	5	<1	27	
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)														<1	>1.7	7	>3.0	>4.7	<1	48	
5/1/96	9:45				40000	1.7	8.1	<0.20	0.11	0.51	0.21	100	31								
10/9/96	10:50				41000	2.6	7.9	<0.2	0.44	<0.50	0.28	96	28								
10/30/96	10:25	S			35000	3.4	8.1	1.0	0.48	0.97	<0.20	79	26	0.2	5	3	1	<4	<0.9	29	
10/30/96	10:25	S	15.2											<0.1	5	<3	0.6	<4	<0.9	11	
11/1/96	9:50	S			24000	10.0	7.0	4.5	<0.10	2.00	<0.20	44	18	0.3	<2	10	2	5	<0.1	46	
11/1/96	9:50	S	14.2											0.3	5	<3	1	<4	<0.1	23	
11/3/96	11:05	S			34000	1.2	7.9	0.9	0.22	0.56	0.48	81	24	<0.1	4	<3	0.4	<4	<0.1	13	
11/3/96	11:05	S	12.8											<0.1	5	<3	0.7	<4	<0.1	12	
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)														<0.1	5	<3	<0.6	<4	<0.1	15.3	

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STATION	DATE	TIME	Depth feet	EC umhos	Turb NTU	pH	NO3 mg/L	NH3 mg/L	TKN mg/L	PO4 mg/L	TSS mg/L	VSS mg/L	Cd µg/L	Cr µg/L	Cu µg/L	Page 25 of 45	µg/L	µg/L	µg/L	µg/L
HUNWAR	1/23/97	8:50	S		17000	21.0	8.1	1.2	0.28	0.70	0.41	43	11	<0.1	<3	<3	2	<5	<0.1	17
	1/23/97	8:50	S	15.8										<0.1	<3	<3	1	<5	<0.1	9
	1/25/97	10:35	S		32000	1.6	7.9	0.9	0.29	0.73	0.46	110	36	<0.1	<3	8	0.3	6	<0.1	22
	1/25/97	10:35	S	15.2										<0.1	<3	<3	0.9	<5	<0.1	7
	1/27/97	12:15	S		22000	3.9	7.9	1.3	0.27	0.87	0.49	82	31	<0.1	<3	7	0.7	<5	<0.1	20
	1/27/97	12:15	S	10.8										<0.1	<3	<3	0.7	8	<0.1	10
	4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<0.1	<3	<3	0.9	>2.6	<0.1	8.7
	4/29/97	9:05			46000	3.1	7.9	<0.8	<0.50	0.74	0.50	100	29							
	10/2/97	13:45	M		50000	3.2	7.9	<0.2	0.26	0.9	0.40	100	28							
	1/29/98	12:25	S		31000	10	7.8	1.7	0.42	1.2	0.39	68	28							
	1/29/98	12:25	S	12.1										<10	<10	13.8	<10	<10	<10	<50
	1/29/98	12:25	S/F	12.1										<10	<10	<10	<10	<10	<10	<50
	1/31/98	9:00	S		39000	2.5	7.8	0.43	0.29	0.6	0.27	85	29							
	1/31/98	9:00	S	14.1										<10	<10	<10	<10	<10	<10	<50
	1/31/98	9:00	S/F	14.1										<10	<10	<10	<10	<10	<10	<50
	2/2/98		S		43000	2.8	7.8	<0.2	<0.5	0.7	0.32	53	24							
	2/2/98		S	12.5										<10	<10	12.6	<10	<10	<10	<50
	2/2/98		S/F	12.5										<10	<10	<10	<10	<10	<10	<50
	4-day average [dissolved metals]													<10	<10	<10	<10	<10	<10	<50
	5/13/98	9:56	S		12800	29	7.9	1.8	0.15	1.0	0.7	200	36							
	5/13/98	9:56	S	11.2										<2	<10	19.4	11.6	<10	<2	56.5
	5/13/98	9:56	S/F	11.2										<2	<10	12.8	<2	<10	<2	14.4
	5/15/98		S		26900	1.7	7.0	<0.5	0.07	1.0	0.15	170	32							
	5/15/98		S	7.9										<2	<10	15.3	<2	<10	<2	17.4
	5/15/98		S/F	7.9										<2	<10	15.5	<2	<10	<2	13
5/17/98	9:30	S		41200	2.2	8.0	<0.5	<0.05	<1.0	0.12	280	44								
5/17/98	9:30	S	10.5										<2	<10	14.8	2.32	<10	<2	41.4	
5/17/98	9:30	S/F	10.5										<2	<10	13.7	<2	<10	<2	25.5	
4-day average [dissolved metals]													<2	<10	14.0	<2	<10	<2	17.6	
6/25/98		M		49200	1.8	7.9	<1.3	<0.05	<1.0	0.12	26	5								
10/21/98	9:30	D	12.4																	

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STATION	DATE	TIME		Depth feet	EC umhos	Turb NTU	pH	NO3 mg/L	NH3 mg/L	TKN mg/L	PO4 mg/L	TSS mg/L	VSS mg/L	Cd µg/L	Cr µg/L	Cu µg/L	µg/L	µg/L	µg/L	µg/L
HUNWAR	3/25/99	14:50	ST	9.3	46200	1.8	8.1	0.44	0.61	<0.05	0.061	70	12	<1	<8	20.3	5.96	12.2	<2	39.0
	3/25/99		SF	9.8										<1	<8	11.8	<2	10.5	<2	13.4
	3/27/99	9:40	ST	9.3	44600	0.9	8.0	<0.44	0.38	0.09	0.092	59	9	<1	<8	14.1	<2	12.1	<2	20.7
	3/27/99		SF	9.8										<1	<8	13.3	<2	12.6	<2	15.1
	3/29/99	10:45	ST	8.1	45600	1.0	8.1	<0.44	0.29	<0.05	0.122	82	12	<1	<8	14.7	<2	<4	<2	15.2
	3/29/99		SF	8.5										<1	<8	12.2	<2	<4	<2	10.2
	4-day average [dissolved metals]													<1	<8	12.4	<2	>7.7	<2	12.9
	6/24/99	14:10	D	6.2	47100	2.7	8.1	<0.44	0.45	<0.05	0.184	73	8							
	10/27/99	10:30	ST	9.6	53100	1.2	7.9	<0.44	0.11	0.69	<0.061	110	32							
	2/23/00	13:26	ST	7.0	42300	7.6	8	<0.44	0.14	1.25	0.15	86	10	<1	12.0	23.9	<2	19.6	<2	14.6
	2/23/00	13:26	SF											<1	12.9	24.4	<2	19.7	<2	17.4
	2/25/00	11:20	ST	9.6	26500	5.6	7.9	0.56	0.20	0.51	0.257	50	38	<1	11.3	24.9	5.37	10.8	<2	41.7
	2/25/00	11:20	SF											<1	9.8	20.2	<2	10.9	<2	29.5
	2/27/00	10:00	ST	13.3	35200	4.3	8	<0.44	0.21	0.79	0.22	50	31	<1	8.9	22.6	<2	12.7	<2	15.0
	2/27/00	10:00	SF											<1	9.2	21.6	<2	12.3	<2	32.6
	4-day average [dissolved metals]													<1	10.7	22.0	<2	14.3	<2	25.6
	6/28/00	10:50	S	9.6	53600	5.6	7.9	<0.44	0.08	0.2	0.275	46	22							

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STATION	DATE	TIME	Depth feet	EC umhos	Turb NTU	pH	NO3 mg/L	NH3 mg/L	TKN mg/L	PO4 mg/L	TSS mg/L	VSS mg/L	Cd µg/L	Cr µg/L	Cu µg/L	Pb µg/L	Ni µg/L	Ag µg/L	Zn µg/L
TGUC05	10/26/98	9:30	D	15100	7.7	8.3	<1.3	2.93	0.57	0.153	46	34							
	6/24/99	15:40	D	48300	2.6	8.2	<0.44	0.83	<0.05	0.285	98	10							
	6/28/00	13:00	D	1.0 53400	4.8	8.1	<0.44	0.072	1.4	0.337	36	14							

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STATION	DATE	TIME	Depth feet	EC umhos	Turb NTU	pH	NO3 mg/L	NH3 mg/L	TKN mg/L	PO4 mg/L	TSS mg/L	VSS mg/L	Cd µg/L	Cr µg/L	Cu µg/L	Page µg/L	29 µg/L	0f µg/L	45 µg/L	
TGDC05	1/29/98	11:35	S	8400	25	7.8	4.6	0.66	2.0	0.49	58	21	<10	<10	12	14	<10	<10	85.5	
	1/29/98	11:35	S/F										<10	<10	<10	<10	<10	<10	<50	
	1/31/98	10:45	S	43000	4.6	8.0	<0.2	0.26	0.7	0.29	72	25	<10	<10	12.3	<10	<10	<10	<50	
	1/31/98	10:45	S/F										<10	<10	<10	<10	<10	<10	<50	
	2/2/98		S	42000	2.3	7.9	<0.2	<0.5	0.7	0.25	68	20	<10	<10	11	<10	<10	<10	<50	
	2/2/98		S/F										<10	<10	<10	<10	<10	<10	<50	
	4-day average [dissolved metals]													<10	<10	<10	<10	<10	<10	<50
	5/13/98	11:56	S	285	27	8.2	1.8	<0.05	1.6	0.83	72	28	<2	5.34	8.49	14.4	<10	<2	47	
	5/13/98	11:56	S/F										<2	<10	2.33	<2	<10	<2	<10	
	5/15/98		S	39400	1.3	8.4	<0.5	0.06	1.2	0.31	260	24								
	5/15/98		S/F										<2	<10	14.7	<2	<10	<2	<10	
	5/17/98	12:00	S	42800	1.7	8.3	<0.5	<0.05	1.0	0.06	340	36	<2	<10	14.9	<2	<10	<2	23.5	
	5/17/98	12:00	S/F										<2	<10	12.7	<2	<10	<2	11.6	
	4-day average [dissolved metals]													<2	<10	9.9	<2	<10	<2	>3.9
	6/25/98		M	48300	1.8	7.9	<1.3	0.08	1.4	0.18	25	9								
	6/25/98		M	49800	8.9	8.0	<1.3	0.09	1.2	0.34	120	22								
	10/26/98	9:45	D	S	47700	0.6	8.1	<1.3	0.98	0.06	0.245	18	12							
	3/25/99		ST	S	8220	21	8.2	2.02	2.0	0.2	0.337	84	28	<1	<8	12.1	7.4	8.4	<2	82.4
	3/25/99		SF	S										<1	<8	5.02	<2	6.9	<2	16.7
	3/27/99	11:40	ST	S	28600	6.4	8.0	1.06	0.84	0.18	0.306	63	51	<1	<8	10.9	<2	10.1	<2	18.0
	3/27/99		SF	S										<1	<8	9.24	<2	17.8	<2	10.9
	3/29/99	13:25	ST	S	34900	5.2	8.2	<0.44	0.6	0.11	0.245	68	13	<1	<8	12.4	2.5	<4	<2	16.1
	3/29/99		SF	S										<1	<8	10.7	<2	<4	<2	<10
	4-day average [dissolved metals]													<1	<8	8.3	<2	>8.2	<2	>9.2
	6/24/99	15:35	D	S	50200	7.6	8.2	<0.44	0.68	<0.05	0.343	130	34							
	2/25/00	9:20	ST	1.0	33100	4.3	8.2	<0.44	0.134	0.64	0.187	52	36	<1	10.3	17.9	<2	10.4	<2	13.7
	2/25/00	9:20	SF											<1	9.7	17.2	<2	10.7	<2	15.7
2/27/00	7:24	ST	1.0	28400	4.5	7.9	0.98	0.215	0.62	0.266	48	38	<1	9.3	16.5	<2	7.6	<2	19.1	
2/27/00	0:00	SF											<1	9.3	15.8	<2	8.1	<2	17.6	

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STATION	DATE	TIME	Depth feet	EC umhos	Turb NTU	pH	NO3 mg/L	NH3 mg/L	TKN mg/L	PO4 mg/L	TSS mg/L	VSS mg/L	Cd µg/L	Cr µg/L	Cu µg/L	Page	30	of	45
BBOLR	8/14/91	9:30		54000	0.7	8.1	0.30	<0.10	<0.10	0.10	11	<5							
	6/30/92	11:45		53000	3.8	8.1	<0.20	0.10	2.30	0.30	46	20							
	11/18/92	15:15		49000	6.4	8.0	<0.20	0.50	0.53	0.35	100	25							
	1/8/93	14:30	S	20000	12.0	7.7	1.10	0.35	0.84	0.49	37	16	<20	<30	<20	<2	<40	<10	27
	1/8/93	14:30	S 2.6	22000	14.0	7.8		0.36	0.69	0.36	57	18	<20	<30	<20	<2	<40	<10	30
	1/10/93	13:30	S	27000	3.8	8.0	0.55	0.34	1.00	0.33	46	20	<20	<30	<20	<2	<40	<10	19
	1/10/93	13:30	S 3.6	33000	7.4	8.0	0.43	0.44	0.80	0.21	55	21	<20	<30	<20	<2	<40	<10	50
	1/12/93	16:15	S	33000	5.2	8.3	<0.20	0.30	1.00	0.37	100	31	<20	<30	<20	<2	<40	13	21
	1/12/93	16:15	S 3.3	35000	4.5	8.2	0.24	0.29	0.68	0.45	12	12	<20	<30	<20	<2	<40	<10	29
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<20	<30	<20	<2	<40	<10	36
	6/15/93	13:20		48000	5.1	8.3	<0.20	0.26	2.20	1.40	88	28							
	10/21/93	13:00	S	46000	2.3	8.1	<0.20	0.31	1.30	0.37	100	40							
	2/17/94	11:45	S	17000	26.0	8.2	1.50	0.39	0.74	1.20	120	<5	<5	<10	<20	3.1	<40	<10	28
	2/17/94	11:45	S										<5	<10	<20	2.3	<40	<10	25
	2/19/94	13:30	S	27000	4.9	7.3	0.76	0.25	0.87	0.51	74	9	<5	<10	<20	<2	<40	<10	100
	2/19/94	13:30	S 3.3										<5	<10	2.3	<2	<40	<10	17
	2/21/94	12:00	S	29000	5.2	8.1	1.20	0.26	1.00	0.23	77	17	<5	12	<20	<2	<40	<10	15
	2/21/94	12:00	S 2.0										<5	13	<20	<2	<40	<10	16
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<5	4.3	>0.8	>0.8	<40	<10	19.3
	3/19/94	12:15	S	45000	60.0	8.9	0.33	0.35	1.00	1.00	190	41	<5	<10	<20	2.7	<40	<10	18
	3/19/94	12:15	S 0.3										<5	<10	<20	6	<40	<10	21
	3/21/94	13:30	S	44000	3.8	9.0	<0.20	0.23	<0.20	<0.20	80	14	<5	<10	<20	<2	<40	12	66
	3/21/94	13:30	S 1.3										<5	<10	<20	<2	<40	14	21
	3/23/94	13:30	S	47000	3.2	9.0	<0.20	0.14	0.40	0.61	73	25	<5	<10	<20	<2	<40	20	27
	3/23/94	13:30	S										<5	<10	<20	<2	<40	16	18
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<5	<10	<20	>2	<40	>10	20

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STATION	DATE	TIME	Depth feet	EC umhos	Turb NTU	pH	NO3 mg/L	NH3 mg/L	TKN mg/L	PO4 mg/L	TSS mg/L	VSS mg/L	Cd µg/L	Cr µg/L	Cu µg/L	µg/L	µg/L	µg/L	µg/L
BBOLR	4/13/94	13:15	S	48000	1.6	8.4	<0.20	0.19	1.20	0.25	110	36							
	11/8/94	14:00		51000	1.6	8.3	<0.20	<0.20	1.00	0.32	76	14							
	11/10/94	14:00	S	39000	14.0	8.0	1.90	0.14	0.89	0.42	78	11	<1	17	3	4	45	<0.3	<10
	11/10/94	14:05	S 1.8										<1	<10	4	<2	<40	<0.3	18
	11/12/94	11:00	S	44000	1.7	7.0	0.60	<0.10	1.20	0.43	31	<5	<1	<10	<10	<2	<40	<0.3	24
	11/12/94	11:05	S 1.8										<1	<10	<10	<2	<40	<0.3	25
	11/14/94	13:45	S	46000	1.7	8.1	<0.20	0.15	0.95	0.39	79	10	<1	<10	5	<2	<40	<2	23
	11/14/94	13:50	S 1.5										<1	<10	<2	<2	<40	<2	26
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<1	<10	>1.3	<2	<40	<0.86	23
	3/11/95	10:45	S	14000	18.0	8.2	1.30	0.25	1.00	0.63	31	11	<1	<10	6	2	<40	<1	20
	3/11/95	10:50	S 2.3										<1	<10	4	<2	48	<1	20
	3/13/95	12:15	S	26000	2.6	8.7	<0.20	<0.10	0.89	0.44	47	18	<1	<10	<4	<2	<40	<1	<10
	3/13/95	12:20	S 2.3										<1	<10	<4	<2	<40	<1	16
	3/15/95	13:45	S	32000	2.6	8.8	<0.20	0.16	0.99	0.57	39	20	<1	<10	<4	<2	<40	<1	11
	3/15/95	13:50	S 1.0										<1	<10	<4	<2	<40	<1	15
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<1	<10	>1.3	<2	>16	<1	17
	5/10/95	11:45		52000	3.0	8.5	<0.20	0.42	0.69	0.55	69	26							
	10/11/95	13:15		51000	1.9	8.2	<0.20	0.16	0.73	0.27	94	34							
	12/13/95	12:00	S	19000	25.0	7.4	8.40	1.20	3.00	0.98	62	20	<1	<10	6	<2	<40	<1	63
	12/13/95	12:05	S 1.2	35000									<1	<10	9	<2	<40	<1	55
	12/15/95	11:00	S	39000	3.8	8.0	0.40	0.38	1.00	0.48	67	18	<1	<10	6	<2	<40	<1	<10
	12/15/95	11:05	S 1.4	39000									<1	<10	8	<2	<40	<1	<10
	12/17/95	11:00	S	40000	2.2	8.2	<0.20	0.48	1.60	0.43	83	22	<1	<10	<5	<2	<40	<1	<10
	12/17/95	11:05	S 1.4	39000									<1	<10	<5	<2	<40	<1	14
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<1	<10	>5.7	<2	<40	<1	>23
	3/5/96	11:00	S	34000	7.7	8.4	0.80	0.31	0.68	1.70	77	22	<1	<5	3	21	20	<1	31
	3/5/96	11:05	S 2.1										<1	<5	5	<2	5	<1	30
	3/7/96	11:00	S	30000	1.9	8.7	0.20	0.31	1.00	0.33	82	20	<1	<5	19	<2	3	<1	37
	3/7/96	11:05	S 2.1										<1	<5	28	25	8	<1	54
	3/9/96	12:00	S	34000	1.7	8.7	<0.20	<0.10	0.57	0.31	94	21	<1	<5	<2	<4	<4	<1	<10
	3/9/96	12:05	S 1.2										<1	5	<2	5	4	<1	28
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<1	>1.7	>11	>10	5.7	<1	37.3
	5/1/96	12:10		40000	1.9	8.4	<0.20	0.11	0.90	0.45	110	33							
	10/9/96	12:55		39000	2.8	8.2	<0.2	0.14	1.40	0.63	83	24							

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STATION	DATE	TIME	Depth feet	EC umhos	Turb NTU	pH	NO3 mg/L	NH3 mg/L	TKN mg/L	PO4 mg/L	TSS mg/L	VSS mg/L	Cd µg/L	Cr µg/L	Cu µg/L	Page µg/L	µg/L	µg/L	µg/L
BBOLR	11/1/96	11:50	S	33000	3.7	7.9	1.3	0.33	1.10	0.73	66	22	0.4	4	<3	1	<4	<0.1	25
	11/1/96	11:50	S	1.8									0.5	6	<3	1	<4	<0.1	33
	11/3/96	13:00	S	34000	1.8	8.3	0.4	0.16	0.60	0.57	72	24	<0.1	5	<3	0.4	<4	<0.1	8
	11/3/96	13:00	S	2.4									<0.1	6	<3	0.4	<4	<0.1	8
2-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)																			
	1/23/97	11:10	S	19000	21.0	8.1	1.4	0.17	0.74	0.51	62	19	<0.1	<3	<3	5	<5	<0.1	20
	1/23/97	11:10	S	2.7									<0.1	<3	<3	2	<5	<0.1	10
	1/25/97	11:20	S	37000	3.2	8.2	<0.8	0.27	0.85	0.40	82	19	<0.1	<3	<3	0.8	6	<0.1	11
	1/25/97	11:20	S	2.1									<0.1	<3	<3	1	8	<0.1	8
	1/27/97	10:05	S	27000	5.3	8.1	<0.8	0.26	0.94	0.48	75	34	<0.1	<3	<3	1	6	<0.1	7
	1/27/97	10:05	S	1.5									<0.1	<3	<3	1	7	<0.1	7
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)																			
	4/29/97	11:25		44000	2.7	8.0	<0.8	<0.50	0.96	0.55	110	29	<0.1	<3	<3	1.3	>5	<0.1	8.3
	10/2/97	15:20	M	49000	2.3	8.2	<0.2	<0.1	1.4	0.74	130	32							
	1/29/98	11:20	S	46000	2.4	7.9	0.2	0.52	0.9	0.24	86	31	<10	<10	12.6	<10	<10	<10	<50
	1/29/98	11:20	S/F										<10	<10	12.4	<10	<10	<10	<50
	1/31/98	10:15	S	45000	4.1	8.1	<0.2	0.22	0.8	0.24	72	29	<10	<10	10.9	<10	<10	<10	<50
	1/31/98	10:15	S/F										<10	<10	10.9	<10	<10	<10	<50
	2/2/98		S	43000	2.4	8.0	<0.2	<0.5	0.8	0.26	89	25	<10	<10	<10	<10	<10	<10	<50
	2/2/98		S/F										<10	<10	<10	<10	<10	<10	<50
4-day average [dissolved metals]																			
	5/13/98	12:05	S	25800	13	8.3	<0.5	<0.05	1.2	0.37	190	28	<2	<10	13.2	4.52	<10	<2	30.6
	5/13/98	12:05	S/F										<2	<10	9.57	<2	<10	<2	<10
	5/15/98		S	41900	0.75	8.9	<0.5	<0.05	1.3	0.34	310	36	<2	<10	17.1	<2	10.9	<2	<10
	5/15/98		S/F										<2	<10	13.2	<2	<10	<2	<10
	5/17/98	11:45	S	42000	0.7	9.0	<0.5	<0.05	1.1	0.12	340	40	<2	<10	12.9	<2	<10	<2	17
	5/17/98	11:45	S/F										<2	<10	12.9	<2	<10	<2	10.8
4-day average [dissolved metals]																			
	6/25/98	13:00	M	50500	2.2	8.0	<1.3	<0.05	1.4	0.24	32	10							
	10/21/98	11:45	D	50500	21.0	8.5	<1.3	2.93	0.07	1.22	330	52							
	3/25/99		ST	47800	1.7	8.6	<0.44	0.89	<0.05	0.092	81	12	<1	<8	13.3	<2	11.9	<2	<10
	3/25/99		SF										<1	<8	12.8	<2	12.5	<2	<10
	3/27/99	11:20	ST	43400	1.6	8.4	<0.44	0.51	<0.05	0.122	62	6	<1	<8	12.7	<2	12.8	<2	<10
	3/27/99		SF										<1	<8	12.9	<2	12.1	<2	<10
	3/29/99	13:00	ST	43300	1.7	8.7	<0.44	0.34	<0.05	0.122	74	10	<1	<8	12.2	<2	<4	<2	<10
	3/29/99		SF										<1	<8	10.8	<2	<4	<2	<10
4-day average [dissolved metals]																			
													<1	<8	12.2	<2	>8.5	<2	<10

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																	Huntington Harbor			
STATION	DATE	TIME	Depth feet	EC umhos	Turb NTU	pH	NO3 mg/L	NH3 mg/L	TKN mg/L	PO4 mg/L	TSS mg/L	VSS mg/L	Cd µg/L	Cr µg/L	Cu µg/L	Page µg/L	33 µg/L	of µg/L	45 µg/L	
BBOLR	6/24/99	15:30	D		51100	27	8.5	<0.44	0.75	<0.05	0.263	140	55							
	10/27/99	12:20	ST	1.0	53400	2.4	8.3	<0.44	<0.05	0.73	0.251	130	59							
	2/25/00	9:00	ST	1.0	37100	3.8	8.3	<0.44	0.05	0.89	0.19	65	25	<1	10.0	19.4	<2	11.4	<2	10
	2/25/00	9:00	SF											<1	9.7	16.7	<2	10.2	<2	<10
	2/27/00	7:07	ST	1.0	37300	1.6	8.3	<0.44	0.10	0.65	0.26	69	46	<1	10.2	18.7	<2	10.4	<2	13.6
	2/27/00	7:07	SF											<1	10.3	20.2	<2	11.2	<2	12.5
	6/28/00	12:45	S	1.0	56100	5.4	8.2	<0.44	0.05	0.85	0.367	44	21							

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STATION	DATE	TIME	Depth feet	EC umhos	Turb NTU	pH	NO3 mg/L	NH3 mg/L	TKN mg/L	PO4 mg/L	TSS mg/L	VSS mg/L	Cd µg/L	Cr µg/L	Cu µg/L	µg/L	µg/L	µg/L	µg/L	
HUNBCC	8/13/91	14:00		51000	0.3	7.9	<0.20	0.70	<0.10	0.10	16	<5								
	6/30/92	14:25		50000	0.9	7.8	<0.20	<0.10	1.00	0.20	34	8								
	11/18/92	13:30		49000	1.6	8.0	0.24	0.41	0.15	0.26	92	22								
	12/7/92	14:00	S	3300	240.0	8.5	2.70	0.41	1.80	3.90	820	60	<20	<30	25	39	<40	<10	130	
	12/7/92	14:00	S	5.9	5900	320.0	8.1	2.50	0.40	1.80	4.50	930	71	<20	<30	60	96	<40	<10	320
	12/9/92	12:30	S										<20	<30	<20	<2	<40	10	28	
	12/11/92	12:15	S	42000	1.3	8.0	<0.20	0.28	0.58	0.31	73	21	<20	<30	<20	<4	<40	<10	56	
	12/11/92	12:15	S	9.8	46000	92.0	8.0	<0.20	0.22	0.54	0.92	280	37	<20	<30	<20	<4	<40	<10	28
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<20	<30	>30	>48	<40	<10	174	
	1/8/93	13:00	S	6900	31.0	7.8	1.70	0.23	0.66	0.63	45	12	<20	<30	<20	5.1	<40	<10	35	
	1/8/93	13:00	S	12.8	30000	73.0	8.0	0.86	0.32	1.00	1.30	250	35	<20	<30	<20	<2	<40	<10	47
	1/10/93	10:45	S	29000	5.9	7.9	1.30	0.38	0.74	0.33	41	22	<20	<30	<20	<2	<40	<10	31	
	1/10/93	10:45	S	14.1	41000	62.0	8.0	0.43	0.47	0.74	0.36	290	55	<20	<30	<20	11	<40	<10	56
	1/12/93	14:45	S	40000	4.2	8.0	0.86	0.42	1.20	0.14	110	30	<20	<30	<20	<2	<40	11	32	
	1/12/93	14:45	S	12.1	44000	5.4	8.0	0.51	0.46	1.30	0.21	30	17	<20	<30	<20	<2	<40	12	24
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<20	<30	<20	>3.7	<40	>4	42.3	
	6/15/93	11:30		43000	5.2	8.1	1.30	0.30	0.92	0.17	100	32								
	10/21/93	11:35	S	45000	1.2	8.0	<0.20	0.28	0.91	0.24	120	39								
	2/17/94	10:15	S	1200	400.0	8.7	3.50	0.54	1.50	4.10	1100	<13	<5	43	63	44	<40	<10	260	
	2/17/94	10:15	S	11.8									<5	23	53	20	<40	<10	190	
	2/19/94	10:20	S	3600	24.0	7.5	5.70	0.40	1.60	0.89	52	9	<5	14	14	6.9	<40	<10	100	
	2/19/94	10:20	S	10.5									<5	11	18	2.8	<40	14	54	
	2/21/94	10:30	S	8300	36.0	8.0	3.70	0.25	1.50	0.67	48	10	<5	<10	<20	3.5	<40	<10	57	
	2/21/94	10:30	S	12.8									<5	<10	<20	<2	<40	<10	28	
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<5	11.3	>23.7	>7.6	<40	>4.7	90.7	
	3/19/94	10:10	S	1600	100.0	8.4	4.50	0.53	1.70	1.30	140	21	<5	16	<20	9.8	<40	<10	69	
	3/19/94	10:10	S	11.2									<5	19	46	25	<40	<10	200	
	3/21/94	11:30	S	26000	5.1	7.8	2.30	0.34	0.27	0.42	50	19	<5	<10	<20	<2	<40	13	56	
	3/21/94	11:30	S	12.8									<5	<10	<20	<2	<40	10	26	
	3/23/94	11:40	S	39000	3.8	8.0	1.50	0.17	0.41	0.39	53	21	<5	<10	<20	<2	<40	18	24	
	3/23/94	11:40	S										<5	<10	<20	<2	<40	21	28	
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<5	6.3	>15.3	>8.3	<40	>10.3	84.7	

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STATION	DATE	TIME	Depth feet	EC umhos	Turb NTU	pH	NO3 mg/L	NH3 mg/L	TKN mg/L	PO4 mg/L	TSS mg/L	VSS mg/L	Cd µg/L	Cr µg/L	Cu µg/L	µg/L	µg/L	µg/L	µg/L
HUNBCC	11/8/94	12:30		52000	0.7	8.2	<0.20	0.26	0.36	<0.20	87	9							
	11/10/94	11:30	S	390	120.0	7.6	5.60	0.80	1.30	1.40	260	33	<1	14	28	31	<40	0.4	180
	11/10/94	11:35	S	15.0									<1	11	57	17	<40	<0.3	220
	11/12/94	9:15	S	33000	4.4	6.3	3.20	0.36	1.70	0.61	49	9	<1	<10	<10	<2	<40	<0.3	39
	11/12/94	9:20	S	15.2									<1	<10	61	14	<40	<0.3	160
	11/14/94	12:00	S	45000	1.8	7.8	1.10	0.39	1.20	0.40	78	8	<1	<10	6	<2	<40	<2	31
	11/14/94	12:05	S	13.0									<1	<10	<2	<2	<40	<2	61
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<1	>3.6	>39.3	>10.3	<40	<2	147
	3/11/95	8:15	S	950	80.0	8.3	1.40	<0.10	0.90	1.00	110	20	<1	<10	14	9	<40	<1	55
	3/11/95	8:20	S	12.1									<1	<10	9	<2	50	<1	48
	3/13/95	10:30	S	17000	7.1	7.8	2.70	0.12	0.71	0.48	27	10	<1	<10	6	<2	<40	<1	34
	3/13/95	10:35	S	10.5									<1	<10	<4	<2	<40	<1	27
	3/15/95	11:15	S	34000	2.4	8.1	5.10	0.31	0.78	0.45	44	22	<1	<10	13	<2	<40	<1	25
	3/15/95	11:20	S	9.5									<1	<10	<4	<2	<40	<1	19
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<1	<10	>3	<2	>16.6	<1	31
	5/10/95	11:00		38000	4.4	8.1	1.70	0.29	0.79	<0.20	53	21							
	10/11/95	12:00		51000	1.8	8.0	<0.20	0.24	0.81	0.22	93	29							
	12/13/95	10:50	S	4500	74.0	7.5	6.50	0.54	2.40	1.70	97	20	3	<10	13	8	<40	<1	86
	12/13/95	10:55	S	15.0	40000								<1	<10	8	<2	<40	<1	47
	12/15/95	9:10	S	24000	11.0	7.7	4.20	0.60	2.10	0.62	45	17	<1	<10	8	<2	<40	<1	46
	12/15/95	9:15	S	10.0	42000								<1	<10	7	<2	<40	<1	15
	12/17/95	9:30	S	38000	4.4	7.8	1.40	0.78	1.90	0.46	120	29	<1	<10	54	<2	<40	<1	47
	12/17/95	9:35	S	9.6	44000								<1	<10	13	<2	<40	<1	32
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<1	<10	9.3	<2	<40	<1	31.3
	3/5/96	8:15	S	32000	120.0	8.6	1.60	0.35	0.89	0.65	68	10	<1	7	9	11	9	<1	79
	3/5/96	8:20	S	13.4									<1	<5	15	<2	4	<1	73
	3/7/96	9:50	S	36000	2.4	8.2	0.60	0.16	0.69	0.22	95	22	<1	9	21	3	8	<1	82
	3/7/96	9:55	S	8.8									<1	52	24	8	5	<1	48
	3/9/96	10:50	S	38000	1.2	8.2	0.60	0.10	<0.50	0.27	87	21	<1	<5	3	<4	16	<1	78
	3/9/96	10:55	S	8.0									<1	9	2	9	<4	<1	19
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<1	>20.3	41	>5.7	>3.0	<1	46.7
	5/1/96	10:50		39000	1.8	8.1	<0.10	0.11	0.55	0.20	110	33							
	10/9/96	11:55		49000	3.8	8.0	<0.2	0.12	0.70	0.34	120	31							

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STATION	DATE	TIME	Depth feet	EC umhos	Turb NTU	pH	NO3 mg/L	NH3 mg/L	TKN mg/L	PO4 mg/L	TSS mg/L	VSS mg/L	Cd µg/L	Cr µg/L	Cu µg/L	Huntington Harbor					
																Page	36 of 45	µg/L	µg/L	µg/L	µg/L
HUNBCC	10/30/96	9:35	S		6000	150.0	7.7	21.0	2.30	8.80	1.80	160	32	0.9	4	18	14	13	<0.9	142	
	10/30/96	9:35	S	12.8										0.3	<2	4	4	<4	<0.9	38	
	11/1/96	10:45	S		29000	7.4	7.7	2.4	0.47	1.40	<0.20	65	24	<0.1	4	4	2	<4	<0.1	27	
	11/1/96	10:50	S	12.2										<0.1	5	5	5	<4	<0.1	28	
	11/3/96	12:05	S		30000	1.2	7.7	2.0	0.59	0.87	0.61	69	21	0.2	5	8	0.3	<4	<0.1	24	
	11/3/96	12:05	S	10.8										<0.1	6	<3	0.4	<4	<0.1	14	
	4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													>0.1	>3.7	>3	3.1	<4	<0.4	26.7	
	1/23/97	8:25	S		1300	65.0	8.5	1.0	0.21	0.72	0.50	62	11	<0.1	<3	4	5	<5	<0.1	23	
	1/23/97	8:25	S	13.8										<0.1	<3	<3	2	<5	<0.1	8	
	1/25/97	11:05	S		35000	2.6	8.0	1.2	0.30	0.58	0.40	77	20	<0.1	<3	<3	0.4	8	<0.1	8	
	1/25/97	11:05	S	12.2										<0.1	<3	<3	0.7	8	<0.1	5	
	1/27/97	13:05	S		24000	4.4	7.9	1.3	0.25	0.72	0.44	89	32	<0.1	<3	6	0.8	<5	<0.1	17	
	1/27/97	13:05	S	12.8										<0.1	<3	<3	0.8	8	<0.1	11	
	4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<0.1	<3	<3	1.2	>5.3	<0.1	8	
	4/29/97	10:35			38000	5.7	8.0	<0.8	<0.50	0.74	0.27	87	26								
	10/2/97	13:10	M		50000	4.2	7.9	<0.2	0.17	0.8	0.32	120	33								
	1/29/98	11:45	S		490	53	8.9	1.9	0.36	1.3	0.99	220	34								
	1/29/98	11:45	S	12.5											<10	10.6	14.1	23.7	<10	<10	75.9
	1/29/98	11:45	S/F	12.5											<10	<10	16.5	19.8	46.1	<10	92.1
	1/31/98	8:40	S		41000	2.4	8.0	0.23	0.2	0.6	0.21	66	21								
	1/31/98	8:40	S	13.4											<10	<10	14.1	<10	<10	<10	<50
	1/31/98	8:40	S/F	13.4											<10	<10	12.8	<10	<10	<10	<50
	2/2/98		S		40000	2.3	7.7	1.4	<0.5	0.8	0.24	80	28								
	2/2/98		S	12.5											<10	<10	10.3	<10	<10	<10	<50
	2/2/98		S/F	12.5											<10	<10	<10	<10	<10	<10	<50
														4-day average [dissolved metals]							
	5/13/98	9:12	S		1280	120	8.4	2.6	0.12	1.6	1.2	360	48								
	5/13/98	9:12	S	9.5											<2	22.6	43.1	33.6	18.2	<2	209
	5/13/98	9:12	S/F	9.5											<2	<10	9.87	<2	<10	<2	14.6
	5/15/98		S		23600	3.5	8.0	3.5	0.1	1.3	0.09	180	32								
	5/15/98		S	7.5											<2	<10	15.9	<2	<10	<2	16.7
	5/15/98		S/F	7.5											<2	<10	16.3	<2	11.4	<2	20.6
	5/17/98	10:30	S		34900	2.4	8.6	<0.5	<0.05	1.1	<0.05	290	32								
5/17/98	10:30	S	9.2											<2	<10	14.7	<2	11.3	<2	23	
5/17/98	10:30	S/F	9.2											<2	<10	13.2	<2	<10	<2	14.4	
													4-day average [dissolved metals]								
													<2	<10	13.1	<2	>3.8	<2	16.5		

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STATION	DATE	TIME		Depth feet	EC umhos	Turb NTU	pH	NO3 mg/L	NH3 mg/L	TKN mg/L	PO4 mg/L	TSS mg/L	VSS mg/L	Cd µg/L	Cr µg/L	Cu µg/L	Huntington Harbor				
																	Page	37	of 45		
																	µg/L	µg/L	µg/L	µg/L	
HUNBCC	6/25/98	10:25	M		50100	1.9	7.8	<1.3	0.07	<1.0	0.12	32	6								
	10/21/98	9:00	D	12.4																	
	3/25/99	15:30	ST	9.3	15800	21.0	8.0	4.53	1.24	0.31	0.428	100	28	<1	<8	17.4	2.64	11.7	<2	29.7	
	3/25/99		SF	9.8										<1	<8	11.5	<2	11.4	<2	15.0	
	3/27/99	10:20	ST	9.3	37300	2.9	7.9	1.23	0.54	0.2	0.245	53	6	<1	<8	12.2	<2	11.5	<2	13.3	
	3/27/99		SF	7.5										<1	<8	11.9	<2	11.7	<2	11.6	
	3/29/99	11:45	S	9.9	40300	2.2	8.0	1.23	0.48	0.11	0.153	64	12	<1	<8	12.8	<2	<4	<2	<10	
	3/29/99		ST	10.5										<1	<8	11.3	<2	<4	<2	<10	
	4-day average [dissolved metals]													<1	<8	11.2	<2	>7.4	<2	>8.9	
	6/24/99	13:30	D	7.4	45400	2.3	8.1	<0.44	0.35	<0.05	0.07	74	12								
	10/27/99	9:50	ST	9.9	52100	1.8	7.8	<0.44	0.10	0.73	<0.061	110	69								
	2/23/00	12:30	ST	13.0	27600	8.8	7.9	1.4	0.24	1	0.272	59	40	<1	11.5	24.2	<2	14.7	<2	18.7	
	2/23/00	12:30	SF											<1	12.1	24.6	<2	15.7	<2	19.7	
	2/25/00	10:51	ST	9.3	18200	13	7.9	2.5	0.24	0.58	0.367	35	24	<1	13.5	24.1	4.79	11.4	<2	39.4	
	2/25/00	10:51	SF											<1	12.0	23.4	3.12	11.6	<2	31.3	
	2/27/00	9:05	ST	13.5	27100	5.2	7.9	3.8	0.32	0.78	0.248	50	41	<1	8.7	22.9	<2	12.7	<2	11.3	
	2/27/00	9:05	SF											<1	9.0	23.1	<2	13.4	<2	13.5	
	4-day average [dissolved metals]													<1	11.0	16.4	>1.0	13.57	<2	21.5	
	6/28/00	9:39	S	12.3	48600	4.8	8	<0.44	0.05	0.52	0.153	33	8								

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STATION	DATE	TIME	Depth feet	EC umhos	Turb NTU	pH	NO3 mg/L	NH3 mg/L	TKN mg/L	PO4 mg/L	TSS mg/L	VSS mg/L	Cd µg/L	Cr µg/L	Cu µg/L	Pb µg/L	Mn µg/L	Zn µg/L	As µg/L
HUNCRB	8/13/91	13:00		51000	0.5	7.9	<0.20	0.70	<0.10	0.20	15	<5							
	6/30/92	13:40		50000	2.9	7.8	<0.20	<0.10	1.00	0.20	25	8							
	11/18/92	13:00		50000	3.4	8.0	0.33	0.41	0.34	0.26	98	24							
	12/7/92	13:15 S		8600	120.0	7.6	<0.20	0.45	0.92	1.60	190	22	<20	<30	<20	9.4	<40	<10	54
	12/7/92	13:15 S	10.5	28000	140.0	7.8	0.67	0.42	0.69	0.89	380	40	<20	<30	21	4.3	<40	<10	56
	12/9/92	12:00 S		24000	7.0	7.8	1.20	0.34	0.53	0.57	49	19	<20	<30	<20	<2	<40	12	32
	12/11/92	11:45 S		39000	1.9	7.9	<0.20	0.43	0.59	0.31	69	21	<20	<30	<20	<4	<40	<10	43
	12/11/92	11:45 S	13.1	45000	36.0	7.9	<0.20	0.38	0.79	2.8	150	30	<20	<30	<20	<4	<40	<10	26
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<20	<30	>10.5	>2.2	<40	<10	41
	1/8/93	12:15 S		11000	11.0	7.8	2.10	0.15	0.66	0.60	40	20	<20	<30	<20	<2	<40	<10	35
	1/8/93	12:15 S	13.8	34000	28.0	7.9	1.00	0.37	0.85	0.74	130	26	<20	<30	<20	11	<40	<10	59
	1/10/93	11:15 S		32000	2.0	7.9	0.89	0.40	0.76	0.34	51	18	<20	<30	<20	<2	<40	<10	34
	1/10/93	11:15 S	17.4	44000	16.0	8.0	0.23	0.51	0.63	0.13	92	55	<20	<30	<20	<2	<40	<10	24
	1/12/93	14:15 S		34000	12.0	8.1	0.76	0.40	0.51	0.28	95	26	<20	<30	<20	<2	<40	12	35
	1/12/93	14:15 S	14.8	44000	4.3	8.0	0.40	0.48	0.51	0.23	120	29	<20	<30	<20	<2	<40	13	26
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<20	<30	<20	>3.7	<40	>4.3	36.3
	6/15/93	10:50		47000	1.0	8.1	<0.20	0.23	0.58	0.23	110	36							
	10/21/93	12:35 S		46000	2.5	7.9	<0.20	0.35	1.20	0.24	110	45							
	2/17/94	9:45 S		31000	66.0	8.2	0.79	0.27	0.59	1.10	270	<5	<5	<10	32	3.9	<40	<10	61
	2/17/94	9:45 S	11.8										<5	<10	<20	4	<40	<10	41
	2/19/94	10:45 S		12000	9.6	7.4	2.60	0.26	0.84	0.68	46	9	<5	<10	28	<2	<40	<10	31
	2/19/94	10:45 S	12.8										<5	<10	6.4	<2	<40	11	35
	2/21/94	10:00 S		17000	9.3	7.9	2.60	0.28	1.80	0.67	81	14	<5	<10	<20	<2	<40	<10	25
	2/21/94	10:00 S	12.8										<5	11	<20	<2	<40	<10	24
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<5	>3.7	>2.1	>1.3	<40	>3.7	33.3
	3/19/94	9:30 S		34000	12.0	8.0	1.30	0.43	1.10	1.00	64	29	<5	<10	<20	<2	<40	<10	65
	3/19/94	9:30 S	11.5										<5	13	55	24	<40	<10	170
	3/21/94	11:00 S		35000	1.6	7.9	1.40	0.26	0.21	0.41	50	21	<5	<10	<20	<2	<40	16	56
	3/21/94	11:00 S	10.2										<5	<10	<20	3.6	<40	13	69
	3/23/94	11:15 S		45000	1.8	8.0	0.63	0.22	0.54	0.51	37	14	<5	<10	<20	<2	<40	19	63
	3/23/94	11:15 S											<5	<10	<20	<2	<40	18	40
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<5	>4.3	>18.3	>9.2	<40	>10.3	93

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STATION	DATE	TIME	Depth feet	EC umhos	Turb NTU	pH	NO3 mg/L	NH3 mg/L	TKN mg/L	PO4 mg/L	TSS mg/L	VSS mg/L	Cd µg/L	Cr µg/L	Cu µg/L	µg/L	µg/L	µg/L	µg/L
HUNCRB	4/13/94	11:05	S	47000	0.9	8.0	<0.20	0.24	0.98	0.38	78	40							
	11/8/94	12:00		53000	0.5	8.1	<0.20	0.33	0.40	0.25	99	20							
	11/10/94	12:30	S	29000	16.0	7.9	3.80	0.46	1.40	0.59	50	5	<1	<10	18	4	<40	<0.3	84
	11/10/94	12:35	S	13.8									<1	<10	22	6	<40	<0.3	68
	11/12/94	9:00	S	35000	2.4	6.9	2.90	0.27	1.50	0.45	22	<5	<1	<10	13	<2	<40	<0.3	45
	11/12/94	9:05	S	13.0									<1	<10	27	11	<40	<0.3	77
	11/14/94	11:30	S	46000	0.5	7.9	0.90	0.34	0.84	0.31	66	10	<1	<10	10	<2	<40	<2	42
	11/14/94	11:35	S	12.2									<1	<10	2	<2	<40	<2	50
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<1	<10	17	>5.6	<40	<0.86	65
	3/11/95	8:30	S	8600	48.0	8.0	2.20	0.13	1.00	1.10	57	9	<1	<10	15	3	<40	<1	29
	3/11/95	8:35	S	13.8									<1	<10	15	7	65	<1	57
	3/13/95	10:00	S	16000	6.4	8.0	1.70	<0.10	0.72	0.59	18	9	<1	<10	7	<2	<40	<1	36
	3/13/95	10:05	S	13.1									<1	<10	9	3	<40	<1	64
	3/15/95	12:15	S	33000	1.2	8.0	1.90	0.29	0.86	0.52	22	12	<1	<10	4	<2	<40	<1	22
	3/15/95	12:20	S	11.5									<1	<10	<4	<2	<40	<1	25
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<1	<10	>8	>3.3	>21.6	<1	49
	5/10/95	10:30		46000	1.4	8.0	<0.20	0.39	0.41	<0.20	62	26							
	10/11/95	11:20					<0.20	0.22	1.9	0.53									
	12/13/95	10:30	S	29000	16.0	7.5	5.80	0.71	2.30	0.86	49	17	<1	<10	10	<2	<40	<1	65
	12/13/95	10:35	S	15.0	40000								<1	<10	14	<2	<40	<1	76
	12/15/95	9:45	S	38000	2.2	7.8	1.70	0.56	1.70	0.48	68	17	<1	<10	12	<2	<40	<1	33
	12/15/95	9:45	S	12.0	41000								<1	<10	10	<2	<40	<1	27
	12/17/95	9:00	S	43000	1.0	7.8	0.60	0.58	6.10	1.10	84	21	<1	<10	8	<2	<40	<1	27
	12/17/95	9:05	S	13.0	43000								<1	<10	20	12	<40	<1	45
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<1	<10	14.7	>4	<40	<1	49.3
	3/5/96	9:00	S	23000	12.0	8.2	1.80	0.36	0.75	0.45	60	14	<1	<5	5	<2	17	<1	46
	3/5/96	9:05	S	16.4									<1	<5	10	<2	<4	<1	38
	3/7/96	9:15	S	30000	1.6	8.1	1.70	0.28	0.91	0.53	76	18	<1	<5	22	6	8	<1	69
	3/7/96	9:20	S	13.0									<1	<5	27	4	9	<1	45
	3/9/96	10:30	S	35000	0.7	8.1	0.90	0.13	0.57	0.35	85	22	<1	<5	4	<4	<4	<1	43
	3/9/96	10:35	S	12.0									<1	<5	2	5	<4	<1	61
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<1	<5	13	>3	>3	<1	48

HUNTINGTON HARBOUR

STATION	DATE	TIME	Depth feet	EC umhos	Turb NTU	pH	NO3 mg/L	NH3 mg/L	TKN mg/L	PO4 mg/L	TSS mg/L	VSS mg/L	Cd µg/L	Cr µg/L	Cu µg/L	µg/L	µg/L	µg/L	µg/L
HUNCRB	5/1/96	10:20		39000	1.2	8.2	<0.20	<0.10	<0.50	<0.20	110	35							
	10/9/96	11:20		40000	3.2	8.0	0.2	0.23	0.54	0.33	77	25							
	10/30/96	10:05 S		24000	28.0	8.1	4.9	0.84	2.20	0.56	83	22	0.4	4	15	6	5	<0.9	76
	10/30/96	10:05 S	15.6										<0.1	6	<3	2	<4	<0.9	20
	11/1/96	10:20 S		30000	8.4	7.6	2.8	0.47	1.60	<0.20	16	16	<0.1	<2	6	2	<4	<0.1	30
	11/1/96	10:20 S	15.0										0.2	5	<3	2	<4	<0.1	22
	11/3/96	11:35 S		31000	1.6	7.8	1.6	0.38	0.84	0.51	69	24	<0.1	5	5	0.3	<4	<0.1	24
	11/3/96	11:35 S	13.4										<0.1	6	<3	3	<4	<0.1	17
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													>0.06	5.7	<3	2.3	<4	<0.4	19.6
	1/23/97	9:20 S		20000	15.0	8.0	1.3	0.27	0.75	0.44	50	17	<0.1	<3	5	1	<5	<0.1	19
	1/23/97	9:20 S	16.0										<0.1	<3	5	6	7	<0.1	15
	1/25/97	10:50 S		35000	1.6	8.0	0.6	0.32	0.76	0.35	87	26	<0.1	<3	<3	0.4	<5	<0.1	12
	1/25/97	10:50 S	15.4										<0.1	<3	<3	1	7	<0.1	9
	1/27/97	12:35 S		18000	8.1	7.9	2.2	0.24	0.81	0.57	66	24	<0.1	<3	10	1	<5	<0.1	32
	1/27/97	12:35 S	14.6										<0.1	<3	<3	0.7	8	<0.1	11
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<0.1	<3	>1.67	2.6	7.3	<0.1	11.7
	4/29/97	10:05		49000	1.7	8.0	<0.8	<0.50	0.52	0.30	110	32							
	10/2/97	14:10 M		48000	3.4	8.1	<0.2	<0.1	1.0	0.38	91	27							
	1/29/98	12:50 S		25000	7.9	8.0	1.9	0.38	1.2	0.46	59	27							
	1/29/98	12:50 S	13.8										<10	<10	14.4	<10	<10	<10	<50
	1/29/98	12:50 S/F	13.8										<10	<10	10	<10	<10	<10	<50
	1/31/98	9:20 S		41000	2.9	8.0	0.27	0.23	0.6	0.24	49	16							
	1/31/98	9:20 S	14.8										<10	<10	<10	<10	40.4	<10	<50
	1/31/98	9:20 S/F	14.8										<10	<10	14.2	13.2	<10	<10	<50
	2/2/98	S		43000	1.1	7.9	0.91	<0.5	0.7	0.22	76	22							
	2/2/98	S	13.1										<10	<10	<10	<10	<10	<10	<50
	2/2/98	S/F	13.1										<10	<10	<10	<10	<10	<10	<50
4-day average [dissolved metals]													<10	<10	>8.1	>4.1	<10	<10	<50
	5/13/98	9:35 S		18600	18	7.9	<0.5	0.08	1.0	0.4	160	24							
	5/13/98	9:35 S	14.1										<2	<10	19.9	2.29	<10	<2	26.9
	5/13/98	9:35 S/F	14.1										<2	<10	18.9	<2	<10	<2	19.1
	5/15/98	S		27100	2.5	8.0	1.3	0.07	1.3	0.52	200	36							
	5/15/98	S	11.5										<2	<10	17	<2	10.7	<2	19.2
	5/15/98	S/F	11.5										<2	<10	17	<2	11.2	<2	15.7
	5/17/98	10:00 S		38900	0.7	8.4	<0.5	<0.05	<1.0	<0.05	330	40							
	5/17/98	10:00 S	9.8										<2	<10	14.8	<2	<10	<2	25.4
	5/17/98	10:00 S/F	9.8										<2	<10	13.5	<2	11.4	<2	21.3
4-day average [dissolved metals]													<2	<10	16.5	<2	>7.8	<2	18.7

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Appendix 5.3

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															Huntington Harbor								
STATION	DATE	TIME	Depth feet	EC umhos	Turb NTU	pH	NO3 mg/L	NH3 mg/L	TKN mg/L	PO4 mg/L	TSS mg/L	VSS mg/L	Cd µg/L	Cr µg/L	Page	42	of	45					
															µg/L	µg/L	µg/L	µg/L	µg/L	µg/L			
HUNSUN	8/13/91	11:15		51000	0.4	8.0	<0.20	0.70	<0.20	<0.10	5	<5											
	6/30/92	10:55		49000	1.9	7.8	<0.20	<0.10	0.80	0.20	30	19											
	11/18/92	11:20		50000	1.5	7.8	0.20	0.40	<0.10	0.31	94	24											
	12/7/92	10:15	S	18000	220.0	8.2	1.90	0.49	1.20	1.70	390	31	<20	<30	<20	2.5	<40	<10	52				
	12/7/92	10:15	S	11.5	46000	5.5	7.9	0.27	0.25	0.32	0.23	97	31	<20	<30	150	2.1	<40	<10	39			
	12/9/92	9:30	S		47000	4.1	8.1	<0.20	0.35	0.39	0.18	110	37	<20	<30	<20	<2	<40	14	24			
	12/11/92	10:00	S		50000	4.0	8.1	<0.20	0.28	0.26	0.11	100	28	<20	<30	<20	<4	<40	<10	530			
	12/11/92	10:00	S	17.4	50000	4.6	8.1	<0.20	0.15	0.28	<0.10	98	29	<20	<30	350	<4	<40	<10	29			
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<20	<30	250	>1.1	<40	<10	34				
	1/8/93	9:45	S		33000	7.0	8.0	0.64	0.35	0.94	0.41	60	25	<20	<30	<20	<2	<40	12	28			
	1/8/93	9:45	S	8.9	36000	6.7	8.0	0.50	0.40	0.60	0.20	66	20	<20	<30	<20	<2	<40	<10	32			
	1/10/93	8:45	S		48000	3.3	8.1	<0.20	0.46	0.64	0.13	110	30	<20	<30	<20	<2	<40	11	25			
	1/10/93	8:45	S	6.6	48000	5.6	8.1	<0.2	0.52	0.67	0.20	107	26	<20	<30	<20	<2	<40	<10	20			
	1/12/93	12:45	S		49000	4.5	8.1	0.38	0.52	0.62	<0.10	92	24	<20	<30	<20	<2	<40	18	25			
	1/12/93	12:45	S	16.7	50000	6.9	8.1	0.22	0.48	0.5	0.21	81	19	<20	<30	<20	<2	<40	13	22			
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<20	<30	<20	<2	<40	>4.3	24.7				
	6/15/93	9:00		50000	3.2	8.0	<0.20	0.27	0.66	0.18	120	39											
	10/21/93	11:10		46000	1.5	7.9	<0.20	0.29	0.82	0.17	140	60											
	2/17/94	11:00	S		18000	38.0	8.3	3.20	0.43	0.91	3.60	130	<5	<5	<10	<20	<2	<40	<10	35			
	2/17/94	11:00	S										<5	<10	<20	<2	<40	<10	36				
	2/19/94	9:15	S		15000	9.6	7.3	3.20	0.25	0.85	0.70	53	<5	<5	<10	6.8	<2	<40	<10	460			
	2/19/94	9:15	S	4.3									<5	11	5.4	<2	<40	<10	59				
	2/21/94	11:05	S		27000	6.6	8.0	1.60	0.18	1.10	0.23	77	14	<5	<10	<20	<2	<40	<10	17			
	2/21/94	11:05	S	4.9									<5	<10	<20	<2	<40	<10	16				
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<5	>3.7	>1.8	<2	<40	<10	37				
	3/19/94	10:50	S		27000	18.0	8.1	2.60	0.46	3.50	1.80	66	28	<5	<10	<20	<2	<40	<10	38			
	3/19/94	10:50	S	2.6									<5	25	47	32	<40	<10	170				
	3/21/94	12:30	S		40000	2.0	7.9	0.82	0.30	<0.20	0.39	62	<5	<5	<10	<20	<2	<40	<10	390			
	3/21/94	12:30	S	4.3									<5	<10	<20	<2	<40	<10	41				
	3/23/94	12:00	S		50000	4.3	8.1	0.22	0.17	0.52	0.31	60	24	<5	<10	<20	<2	<40	16	19			
	3/23/94	12:00	S										<5	<10	<20	<2	<40	18	24				
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<5	>8.3	>15.7	>10.7	<40	>6	78.3				

HUNTINGTON HARBOUR

															Huntington Harbor					
STATION	DATE	TIME	Depth feet	EC umhos	Turb NTU	pH	NO3 mg/L	NH3 mg/L	TKN mg/L	PO4 mg/L	TSS mg/L	VSS mg/L	Cd µg/L	Cr µg/L	c Page 43 of 45					
HUNSUN	4/13/94	12:05	S		50000	1.4	8.0	<0.20	0.23	1.00	0.22	100	46							
	11/8/94	13:00			54000	1.4	8.2	<0.20	<0.20	2.50	0.25	82	12							
	11/10/94	13:00	S		22000	48.0	8.0	4.10	0.49	1.20	0.54	83	18	<1	<10	9.2	5.5	<40	0.4	40
	11/10/94	13:05	S	12.2										<1	<10	6.3	<2	<40	<0.3	28
	11/12/94	9:30	S		50000	2.3	6.8	<0.20	<0.10	0.79	0.39	69	5	<1	<10	<10	<2	<40	<0.3	19
	11/12/94	9:35	S	10.0										<1	<10	<10	<2	<40	<0.3	30
	11/14/94	12:30	S		51000	2.4	8.1	<0.20	0.12	0.78	0.26	89	11	<1	<10	5	<2	<40	2	31
	11/14/94	12:35	S	7.0										<1	<10	<2	<2	<40	<2	26
	4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<1	<10	>2	<2	<40	>0.67	28
	3/11/95	9:30	S		12000	43.0	8.0	1.30	0.13	0.77	0.64	54	9	<1	<10	8	3.6	<40	<1	23
	3/11/95	9:35	S	10.2										<1	<10	6.2	<2	63	<1	33
	3/13/95	11:00	S		31000	3.3	7.9	0.88	0.11	0.45	0.35	46	16	<1	<10	<4	<2	<40	<1	32
	3/13/95	11:05	S	8.2										<1	<10	<4	<2	<40	<1	73
	3/15/95	10:00	S		50000	4.5	8.2	<0.20	0.24	0.58	0.24	73	31	<1	<10	<4	<2	<40	<1	17
	3/15/95	10:05	S	10.8										<1	<10	<4	<2	<40	<1	23
	4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<1	<10	>2	<2	>21	<1	43
	5/10/95	9:30			55000	1.9	7.8	<0.20	0.55	0.63	0.28	68	36							
	10/11/95	12:20			51000	3.0	8.1	<0.20	0.16	0.53	<0.20	95	31							
	12/13/95	9:15	S		25000	33.0	7.8	6.70	0.93	2.20	1.00	75	24	1	<10	5	<2	<40	<1	110
	12/13/95	9:20	S	1.8	42000									10	<10	11	<2	<40	<1	42
	12/15/95	8:35	S		41000	2.7	7.9	1.00	0.58	1.20	0.39	64	21	<1	<10	10	<2	<40	<1	21
	12/15/95	8:40	S	4.2	43000									<1	<10	8	<2	<40	<1	10
	12/17/95	10:00	S		46000	5.2	7.9	<0.20	0.35	1.10	0.25	95	25	<1	<10	<5	<2	<40	<1	<10
	12/17/95	10:05	S	4.2	46000									<1	<10	7	<2	<40	<1	16
	4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													>3.3	<10	8.7	<2	<40	<1	68
	3/5/96	9:35	S		33000	15.0	8.2	1.20	0.30	0.59	0.37	73	18	<1	<5	18	<2	<4	<1	35
	3/5/96	9:40	S	13.0										<1	<5	3	<2	3	<1	29
	3/7/96	10:10	S		40000	3.5	8.2	0.20	0.19	0.75	<0.20	100	25	<1	<5	17	<2	3	<1	53
3/7/96	10:15	S	7.6										<1	7	20	<2	<2	<1	46	
3/9/96	9:35	S		40000	1.3	8.1	<0.20	<0.10	<0.50	<0.20	110	28	<1	<5	<2	6	<4	<1	60	
3/9/96	9:40	S	9.2										<1	<5	<2	<4	<4	<1	11	
4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)													<1	>2.3	>7.7	<4	>1.0	<1	28.7	

HUNTINGTON HARBOUR

Santa Ana Region 8
2001 WQA/303 D List Update
Supporting Data
Huntington Harbor

STATION	DATE	TIME	Depth feet	EC umhos	Turb NTU	pH	NO3 mg/L	NH3 mg/L	TKN mg/L	PO4 mg/L	TSS mg/L	VSS mg/L	Cd µg/L	Cr µg/L	Cu µg/L	Page	44	0f	45
HUNSUN	5/1/96	11:15		40000	3.4	8.2	<0.20	0.14	<0.50	<0.20	130	33							
	10/9/96	12:20		39000	5.6	8.0	<0.2	0.21	0.74	0.29	120	31							
	10/30/96	10:55	S	24000	39.0	7.9	9.5	1.20	3.70	0.72	67	18	0.4	3	9	5	4	<0.9	62
	10/30/96	10:55	S	13.0									<0.1	5	<3	0.7	<4	<0.9	8
	11/1/96	9:05	S	29000	7.3	7.6	2.3	0.50	1.00	0.74	55	21	0.4	4	4	2	<4	<0.1	43
	11/1/96	9:05	S	11.6									0.6	4	<3	0.9	<4	<0.1	21
	11/3/96	9:50	S	35000	2.8	7.9	1.0	0.27	<0.50	0.46	98	28	<0.1	5	<3	0.3	<4	<0.1	55
	11/3/96	9:50	S	10.0									0.2	6	<3	0.6	<4	<0.1	15
	4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)												>0.26	5	<3	0.73	<4	<0.1	14.6
	1/23/97	10:05	S	23000	22.0	8.2	0.9	0.11	0.64	0.39	57	19	<0.1	<3	5	2	<5	<0.1	13
	1/23/97	10:05	S	15.2									<0.1	<3	<3	4	<5	<0.1	7
	1/25/97	10:15	S	48000	2.1	8.1	<0.2	<0.10	0.65	<0.20	110	22	<0.1	<3	<3	0.3	6	<0.1	<2
	1/25/97	10:15	S	13.0									<0.1	<3	<3	0.8	6	<0.1	5
	1/27/97	11:35	S	30000	4.9	8.1	0.9	0.23	0.72	0.37	110	38	<0.1	<3	<3	0.7	6	<0.1	10
	1/27/97	11:35	S	12.6									<0.1	<3	<3	0.6	9	<0.1	5
	4-DAY AVERAGE (DEPTH INTEGRATED SAMPLE)												<0.1	<3	<3	1.8	>5	<0.1	5.6
	4/29/97	11:05		49000	3.8	7.9	<0.8	<0.50	0.78	0.35	110	31							
	10/2/97	12:45	M	50000	5.1	7.9	<0.2	0.22	0.7	0.29	100	31							
	1/29/98	13:15	S	41000	8.5	8.0	0.67	0.16	0.8	0.35	110	34							
	1/29/98	13:15	S	9.8									<10	<10	10	<10	<10	<10	<50
	1/29/98	13:15	S/F	9.8									<10	<10	<10	<10	<10	<10	<50
	1/31/98	8:25	S	47000	4.9	8.1	<0.2	0.15	0.5	<0.2	66	22							
	1/31/98	8:27	S	11.8									<10	<10	18.7	<10	<10	<10	<50
	1/31/98	8:29	S/F	11.8									<10	<10	<10	<10	<10	<10	<50
	2/2/98		S	47000	2.5	8.0	<0.2	<0.5	0.5	<0.2	130	39							
	2/2/98		S	9.8									<10	<10	12.5	<10	<10	<10	<50
	2/2/98		S/F	9.8									<10	<10	<10	13.1	<10	<10	<50
	4-DAY AVERAGE (DEPTH INTEGRATED SAMPLES)												<10	<10	<10	>4	<10	<10	<50

HUNTINGTON HARBOUR

Huntington Harbor																				
STATION	DATE	TIME	Depth	EC	Turb	pH	NO3	NH3	TKN	PO4	TSS	VSS	Cd	Cr	Cu	Page	45 of 45			
			feet	umhos	NTU		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	
HUNSUN	5/13/98	10:25	S	27500	19	8.0	<0.5	0.07	1.0	0.37	230	32								
	5/13/98	10:25	S	10.8									<2	<10	19	<2	<10	<2	20.3	
	5/13/98	10:25	S/F	10.8									<2	<10	16	<2	<10	<2	10	
	5/15/98		S	45300	2.3	8.2	<0.5	<0.05	1.0	<0.05	270	36								
	5/15/98		S	9.2									<2	<10	17	<2	<10	<2	<10	
	5/15/98		S/F	9.2									<2	<10	18	<2	11.5	<2	15.4	
	5/17/98	11:00	S	47100	1.9	8.2	<0.5	<0.05	<1.0	<0.05	350	48								
	5/17/98	11:00	S	6.6									<2	<10	13	<2	<10	<2	17.3	
	5/17/98	11:00	S/F	6.6									<2	<10	14	<2	<10	<2	17.9	
							4-day average [dissolved metals]						<2	<10	16	<2	3.8	<2	14.4	
	6/25/98	10:10	M	51300	2.1	7.9	<1.3	<0.05	<1.0	0.15	34	10								
	10/21/98	10:45	D	14.4																
	3/25/99	15:50	ST	10.2	49000	1.6	8.0	<0.44	<0.2	<0.05	0.061	210	34	<1	<8	19.9	<2	12.9	<2	12
	3/25/99		SF	10.8									<1	<8	13.4	<2	14.5	<2	<10	
	3/27/99	10:35	ST	9	46300	2.2	8.0	<0.44	0.32	<0.05	0.122	78	6	<1	<8	13.6	<2	12.3	<2	<10
	3/27/99		SF	9.5									<1	<8	13.0	<2	13.1	<2	<10	
	3/29/99	12:15	ST	7.4	46300	1.9	8.2	<0.44	1.11	<0.05	0.092	79	8	<1	<8	12.5	<2	<4	<2	<10
	3/29/99		SF	7.8									<1	<8	13.9	<2	<4	<2	<10	
							4-day average [dissolved metals]						<1	<8	13.4	<2	>9.2	<2	<10	
	6/24/99	13:15	D	8.4	48100	2.8	8.0	<0.44	<0.2	<0.05	0.073	94	10							
	10/27/99	11:20	ST	9	52800	2.16	7.9	<0.44	<0.05	0.6	<0.061	110	40							
	2/23/00	14:00	ST	16.5	35100	5	8	<0.44	0.18	0.89	0.205	58	33	<1	11.4	21.2	<2	15.8	<2	14.6
	2/23/00	14:00	SF										<1	11.3	21.7	<2	17.2	<2	19	
	2/25/00	12:15	ST	13.0	31600	4.8	8	0.73	0.19	0.63	0.196	49	30	<1	9.7	23.4	<2	13.3	<2	15.4
	2/25/00	12:15	SF										<1	10.7	26.6	<2	15.3	<2	19.2	
	2/27/00	8:10	ST	9.6	40500	2.4	7.9	<0.44	0.18	0.91	0.0857	71	37	<1	8.9	26.8	<2	15.2	<2	17.1
	2/27/00	8:10	SF										<1	8.2	25.3	<2	13.4	<2	17.2	
							4-day average [dissolved metals]						<1	10.0	24.7	<2	15.3	<2	18.5	
	6/28/00	8:50	S	12.3	52500	5.8	7.9	<0.44	<0.05	0.41	0.153	33	16							

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

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

3/3 - Hg

- 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 segments of the beach.
- 150 feet up and down coast 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.

WHOLE IS DATA?

- 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. Heala 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.
- 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

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

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:

- 2/3 {
- 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
- 9/4 {
- 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

Handwritten notes:
Hgs 2/3, 2/3
ddepp_w 9/4, 9/4

Newport Bay Above PCH Bridge

- Data Analyses:

Coastal Fish Contamination Data:

- 4/4 {
- 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:

- 3/3
- + 3/3
- Hg = 6/6
- 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

3/3

- 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

- 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

Hg = 4/4

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:*

- 3/3
- 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 exceeded 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 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
 - 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

- 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 diel_w standard of 0.2 ug/kg
 - Walleye Surfperch – 1/1 exceeded the MTRL Bays and Estuaries diel_w standard of 0.7 ug/kg
 - Walleye Surfperch – 0/1 exceeded the NAS diel_w standard of 0.1 ug/g
 - Walleye Surfperch – 0/1 exceeded the FDA diel_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

Hg = 5/5
~~Walleye Surfperch~~

4/5 {

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

- 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.
- 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

1/13

? →

Esther Oil Platform

- *Coastal Fish Contamination Data:*

- Data Analyses:

- 2/2
 - Kelp Bass – 1/1 exceeded the MTRLs in Ocean Waters diel_w standard of 0.2 ug/kg
 - Kelp Bass – 1/1 exceeded the MTRLs in Bays and Estuaries diel_w standard of 0.7 ug/kg
- 0/1
 - Kelp Bass – 0/1 exceeded the NAS diel_w standard of 0.1 ug/g
 - Kelp Bass – 0/1 exceeded the FDA diel_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
- 2/2
 - 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. 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

5. 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

6. 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

- 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

7. 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

8. 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)
- 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. 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

— NUTRIENTS?

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