Regional Water Quality Control Board

SAN DIEGO REGION (9)

SECTION 303 (d) LIST PROPOSALS

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Region 9: Agua Hedionda Creek
Total Dissolved Solids

Water Body	Agua Hedionda Creek
Stressor/Media/Beneficial Use	Total Dissolved Solids/Water/MUN, AGR
Data quality assessment. Extent to which data quality requirements met.	NPDES permit monitoring.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (500 mg/L) used.
Water Body-specific Information	Data age = 1-3 years.
Data used to assess water quality	City of San Diego sampling showed exceedance of the Basin Plan objective for more than 10% of the time during a one-year period. At station AH1 from June 1998 to March 1999, 4 of 4 samples (100%) exceeded the objective, with a mean of 1268.0 mg/L and a median of 1251.5 mg/L. From January 2000 to March 2000, 1 of 3 samples (33%) exceeded the objective, with a mean of 684.3 mg/L and a median of 362.0 mg/L. One other station also demonstrated a TDS concentration to exceed the objective in June of 1998. The concentration at AHC-SA was 1372 mg/L. All non-detects were treated as 0.0 mg/L for statistical purposes. Regional Board TDS sampling in June of 1998 also show Agua Hedionda Creek to have concentrations above the Basin Plan objective. The concentration at Sycamore Avenue was 1372 mg/L, at El Camino Real the concentration was 1716 mg/L and 1624 mg/L.
Spatial representation	Two sample sites (top and bottom of reach).
Temporal representation	November 1998 to March 2000.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Anthropogenic sources, imported water, evaporation, and natural salt sources. Also, urban runoff, agriculture runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage.

3. Beneficial uses have been established for and apply to the water body.
4. Water quality standard used is applicable.
5. Data are numerical.
6. Standard methods were used.
7. Other water body- or site-specific information including the effects of season and age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 9: Agua Hedionda Lagoon
Caulerpa taxifolia

Water Body	Agua Hedionda Lagoon
Stressor/Media/Beneficial Use	Caulerpa taxifolia (an invasive marine algae)/Water/Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	The information used to develop this listing is taken from two summary documents developed by the National Marine Fisheries Service.
Linkage between measurement endpoint and benefical use or standard	The Basin Plan contains narrative water quality objectives for the protection of bay and estuarine communities and populations of vertebrate, invertebrate, and plant species.
Utility of measure for judging if standards or uses are not attained	In areas where the Caulerpa has become well established, it has caused ecological and economic devastation by overgrowing and eliminating native seaweeds, seagrasses, and other communities. In the Mediterranean, it is reported to have harmed tourism and pleasure boating, devastated recreational diving, and had a costly impact on commercial fishing both by altering the distribution of fish as well as creating a considerable impediment to net fisheries. The dense carpet that this species can form on the bottom could inhibit the establishment of juveniles of many reef species, and its establishment offshore could seriously impact sport and commercial fisheries and navigation through quarantine restrictions to prevent the spread of this species.
Water Body-specific Information	This algae poses a substantial threat to marine ecosystems in Southern California, particularly to the extensive eelgrass meadows and other benthic environments that make coastal waters such a rich and productive environment for fish and birds. The eelgrass beds and other coastal resources that could be directly impacted by an invasion of Caulerpa are part of a food web that is critical to the survival of numerous native marine species including the commercially and recreationally important spiny lobster, California halibut, and sand basses.
Data used to assess water quality	The discovery of this species in southern California, recently reported in the journal Nature to be genetically identical to the strain in the Mediterranean, confirms that it nevertheless continues to invade marine ecosystems, such as the ecologically rich eelgrass beds that thrive in many of our coastal lagoons. It is likely that the alga was released from an aquarium at the locations in California where it has been discovered, a practice banned under California law. As of September 24, 2001 when Governor Gray Davis signed into law Assembly Bill 1334, it is now unlawful to sell, import, transport, transfer, or possess C. taxifolia and a number of look-alike species and other invasive Caulerpa species.
Spatial representation	The infestation of Huntington Harbour and Agua Hedionda are the first know infestations along the Pacific Coast of North America.
Temporal representation	Caulerpa was found in Agua Hedionda Lagoon in June 2000. It is probable that Caulerpa has been present since 1996.
Data type	The information used was not numerical.
Use of standard method	N/A

Region 9: Agua Hedionda Lagoon
Caulerpa taxifolia

Potential Source(s) of Pollutant	It is likely that the alga was released from an aquarium near the Lagoon. This practice is now banned by State law (AB 1334 (2001)).
Alternative Enforceable Program	RWQCB staff is coordinating efforts to define the spatial extent of the infestation, working with other agencies and interested parties to confine the infestation, examining available technologies for Caulerpa removal potential and educating the public as to its source and impact to the harbor.
RWQCB Recommendation	Do not add Aqua Hedionda Lagoon to the 303(d) list for Caulerpa taxifolia.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because a pollutant does not contribute to or cause the problem.

Region 9: Agua Hedionda Lagoon
Bacterial Indicators (was "high coliform count")

Water Body	Agua Hedionda Lagoon
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that the water quality problem was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial Indicators."

Region 9: Aliso Creek
Enterococci

Water Body	Aliso Creek
Stressor/Media/Beneficial Use	Enterococci/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	205(j) Planning Study used.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (>108 colonies/100 mL), for lightly/moderately used areas.
Water Body-specific Information	Data age = 2 years.
Data used to assess water quality	Aliso Creek Water Quality Planning Study (6-8/99), dry weather): Cooks Corner (44% exceedences [>108 coliform forming units/100 mL]), downstream of English Canyon Creek (33%), downstream of Dairy Fork Creek (78%), downstream of Sulphur Creek (44%) and at Pacific Coast Highway (33%). (6-8/99) tributaries, dry weather: English Canyon Creek (56%), Dairy Fork Creek (78%), Aliso Hills Channel (100%), Sulphur Creek (33%) and Wood Canyon Creek (22%).
Spatial representation	9 samples at each of 10 stations (Aliso Creek and tributaries combined) entire reach sampled.
Temporal representation	Sampling occurred in dry weather from June-August 1999.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Urban runoff, other point sources and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. Place on section 303(d) list as "Bacterial Indicators." This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used.

8. Other water body- or site-specific information including the effects of age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 9: Aliso Creek
Escherichia coli

Water Body	Aliso Creek
Stressor/Media/Beneficial Use	E. coli/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	205(j) Planning Study used.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (>406 colonies/100 mL), for lightly/moderately used areas.
Water Body-specific Information	Data age = 2 years.
Data used to assess water quality	Aliso Creek Water Quality Planning Study (6-8/99), dry weather: Cooks Corner (22% exceedences [>406 colonies/100 mL]), downstream of English Canyon Creek (56%), downstream of Dairy Fork Creek (89%), and downstream of Sulphur Creek (33%). (6-8/99) tributaries, dry weather: English Canyon Creek (44%), Dairy Fork Creek (78%), Aliso Hills Channel (67%), Sulphur Creek (22%) and Wood Canyon Creek (33%).
Spatial representation	9 samples at each of the 10 stations (Aliso Creek and tributaries combined) entire reach sampled.
Temporal representation	Sampling from June-August 1999.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Urban runoff, other point sources and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. Place on section 303(d) list as "Bacterial Indicators." This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of age of the data were considered.

Region 9: Aliso Creek
Escherichia coli

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 9: Aliso Creek
Fecal Coliform

Water Body	Aliso Creek
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	205(j) Planning Study used.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (for 5 samples or more, any 30-day period, log mean not >200 colonies/100 mL; no more than 10% total samples >400 colonies/100 mL) used.
Water Body-specific Information	Data age = 3 years.
Data used to assess water quality	Aliso Creek Water Quality Planning Study (10/98): 4 locations w/log mean concentrations >>WQO for 30-day log mean objective (200 colonies/100 mL). Locations: downstream of English Canyon Creek (1074 Most Probable Number (MPN)/100 mL), downstream of Dairy Fork Creek (4308 MPN/100 mL), downstream of Sulphur Creek (1410 MPN/100 mL) and at Pacific Coast Highway (3178 MPN/100 mL). (5 samples in a 30-day period)
Spatial representation	5 samples; lower 1 mile of Creek sampled.
Temporal representation	Samples collected in a 30-day period in October 1998.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Urban runoff, other point sources and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. Place on section 303(d) list as "Bacterial Indicators." This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of season, and age of the data were considered.

Region 9: Aliso Creek
Fecal Coliform

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 9: Aliso Creek
Phosphorus

Water Body	Aliso Creek
Stressor/Media/Beneficial Use	Phosphorus/Water/WARM, WILD
Data quality assessment. Extent to which data quality requirements met.	NPDES permit monitoring.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan), narrative objective, also (biostimulatory objective = 0.1 mg/L) not to be exceeded >10% of the time.
Water Body-specific Information	Data age = 1-4 years.
Data used to assess water quality	Orange County NPDES Annual Progress Report (7/97 and 7/00): (data converted from PO4 to equivalent phosphorus value). 7/97-6/98: 5/5 (100%) > WQO, mean = 0.23 mg/L. 9/98-8/99: 20/22 (91%)> WQO, mean=0.26 mg/L. 10/99-6/00: 13/13 (100%)>WQO, mean=0.304 mg/L.
Spatial representation	40 samples; data good for lower 4 miles of the creek.
Temporal representation	Over 4 years (1997-2000).
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Urban runoff, other point sources and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the effects of season and age of the data were considered. An adequate number of the water quality measurements exceeded the water

quality standard. The staff confidence that standards were exceeded is moderate.

Region 9: Aliso Creek
Toxicity (likely due to organophosphate pesticides)

Water Body	Aliso Creek
Stressor/Media/Beneficial Use	Organophosphate pesticides/Water/WARM, WILD
Data quality assessment. Extent to which data quality requirements met.	205(j) Planning Study used.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (narrative objective) used.
Water Body-specific Information	Data age = 2-3 years.
Data used to assess water quality	Aliso Creek Water Quality Planning Study: 9/98--no toxicity (low flow); 11/98 and 01/99--toxicity to juvenile fathead minnows and Ceriodaphnia dubia (flood events). For 11/20 toxicity tests, survival rates for both species <70%; for 10/11 of these survival <50%. Average survival rate (juvenile fathead minnows) = 79%. Average survival rate (Ceriodaphnia dubia) =22%.
Spatial representation	20 samples, 5 stations over entire reach (7.2 miles) covered
Temporal representation	Samples collected from 1998-1999.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Organophosphate pesticides are a significant component of the aquatic toxicity in storm water samples. Organophosphate pesticides are found in urban and agricultural run-off.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the effects of age of the data were considered.

Region 9: Aliso Creek
Toxicity (likely due to organophosphate pesticides)

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 9: Aliso Creek (mouth) (was Aliso Creek Mouth of Orange) Bacterial Indicators (was "high coliform count")

Water Body	Aliso Creek (mouth) (was Aliso Creek Mouth of Orange)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "bacterial indicators."

Region 9: Buena Vista Lagoon
Bacterial Indicators (was "high coliform count")

Water Body	Buena Vista Lagoon
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Chollas Creek
Bacterial Indicators (was "high coliform count")

Water Body	Chollas Creek
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Cloverdale Creek
Phosphorus

Water Body	Cloverdale Creek
Stressor/Media/Beneficial Use	Phosphorus/Water/MUN, REC-1, REC-2, WARM, COLD, WILD, RARE
Data quality assessment. Extent to which data quality requirements met.	City of San Diego WQ Laboratory.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan), narrative objective, also (biostimulatory objective = 0.1 mg/L) not to be exceeded >10% of the time.
Water Body-specific Information	Data age = 2 years.
Data used to assess water quality	Sampling by the City of San Diego at station CDC4 showed the Basin Plan objective for phosphorus to be exceeded for more than 10% of the time during the year. Eight of 8 samples exceeded the objective, with an average concentration was 0.45 mg/L and a median concentration was 0.34 mg/L.
Spatial representation	One sample site, 1/2 mile of Creek.
Temporal representation	Samples collected April 1999-March 2000.
Data type	Numerical data.
Use of standard method	NPDES procedures.
Potential Source(s) of Pollutant	Urban runoff, other point sources and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of season and age of the data were considered. An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 9: Cloverdale Creek
Total Dissolved Solids

Water Body	Cloverdale Creek
Stressor/Media/Beneficial Use	Total Dissolved Solids/Water/MUN, AGR
Data quality assessment. Extent to which data quality requirements met.	City of San Diego WQ Laboratory.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (500 mg/L) used.
Water Body-specific Information	Data age = 1-2 years.
Data used to assess water quality	Sampling by the City of San Diego at station CDC4 showed the Basin Plan objective for TDS to be exceeded for more than 10% of the time during the year. Eight of 8 samples exceeded the objective, with an average concentration of 1443.4 mg/L and a median concentration of 1500.0 mg/L.
Spatial representation	One sample site, 1/2 mile of Creek.
Temporal representation	Samples collected April 1999-March 2000.
Data type	Numerical data.
Use of standard method	NPDES procedures.
Potential Source(s) of Pollutant	Anthropogenic sources, imported water, evaporation, and natural salt sources. Also, urban runoff, agriculture runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of season and age of the data were considered. An adequate number of the water quality measurements exceeded the water

quality standard. The staff confidence that standards were exceeded is moderate.

Region 9: Dana Point Harbor
Dissolved Copper

Water Body	Dana Point Harbor
Stressor/Media/Beneficial Use	Dissolved Copper/Water and sediment/WILD, RARE, MAR, MIGR, SPWN
Data quality assessment. Extent to which data quality requirements met.	The County of Orange's contracted lab used USEPA Method 200.8, an ICP/MS method commonly used for the detection of dissolved copper in drinking water. This method directs the analyst to correct for problems known to occur due to salt matrix interference. The contracted laboratory, however, did not remove salt matrices prior to testing for dissolved copper. It is therefore likely that the data reported in the RWQCB Fact Sheet (Table 1) are incorrect. USEPA (Region 9) performed intercalibration with Orange County's contracted lab to test accuracy and the recovery of metals within seawater/estuarine samples. Standard reference samples came from the National Research Council of Canada (NRCC). Intercalibration results demonstrated that Orange County's contracted lab reported much higher concentrations of copper than the NRCC reference contained when salt matrices are not removed. While this quality assurance check is preliminary, it suggests the Orange County contracted lab cannot produce a reliable dissolved copper result in seawater. The Dana Point Harbor data from the contracted lab must therefore be viewed with caution.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	Water: CTR criteria used. Sediment: Effects Range Low, Effects Range Median (ERM).
Water Body-specific Information	Data age = 1-10 years.
Data used to assess water quality	Water chemistry data: 15/45 (33%) samples>CMC but data are suspect. Sediment data: 200-2001: 25/25 (100%) > ERL, 14/25 (56%) > ERM; all years ('99-'01): 37/62 (60%) > ERL, 18/62 (29%) >ERM. Summary: Limited direct evidence of elevated dissolved copper concentrations in Dana Point Harbor. One storm event resulted in all the direct evidence of exceedances and there is limited evidence that the data may not be valid due to analytical errors at the contracted laboratory. However, during the one storm event, 100% of the samples exceeded the CMC by a large margin. Considering all three-storm events, one-third of the samples exceeded the CMC. In addition, total copper concentrations are now above the ERM at over half the stations sampled and exceed the ERL at all the stations. Sediment toxicity data was not reported by the RWQCB staff.
Spatial representation	Five stations sampled within Harbor and just outside Harbor mouth.
Temporal representation	Two storm events sampled per year. No dry-weather, dissolved copper data was used.

Region 9: Dana Point Harbor
Dissolved Copper

Data type	Numerical data.
Use of standard method	RWQCB staff found that the lab used a non-standard method and that the data is probably unreliable.
Potential Source(s) of Pollutant	RWQCB staff has knowledge of antifouling (Cu-containing) paint use in Dana Point Harbor.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should not be placed on the section 303(d) list because existing data are inadequate to determine if applicable water quality standards are not exceeded. This conclusion is based on the staff findings that: 1. The data is considered to be of inadequate quality. 2. Non-standard methods were used. An inadequate number of the water quality measurements were scientifically valid or exceeded the water quality standard. The staff confidence that standards were exceeded is low.

Region 9: Dana Point Harbor (was Dana Point Harbor at Baby Beach [was + Bacterial Indicators (total/fecal coliform, enterococci)

Water Body	Dana Point Harbor (was Dana Point Harbor at Baby Beach [was "Dana Point Harbor"])
Stressor/Media/Beneficial Use	Bacterial Indicators (total/fecal coliform, enterococci)/Water/REC-1, SHELL
Data quality assessment. Extent to which data quality requirements met.	Orange County Environmental Health Care Agency.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan/Ocean Plan), via beach closures used. See entry for Pacific Ocean Shoreline (Ocean Beach).
Water Body-specific Information	Data age = 1 yr.
Data used to assess water quality	Re-analysis of applicable year-round 1999 through 2002 data by the RWQCB staff showed 39 usable exceedence days out of 153 usable samples, 32 exceedences out of 153 samples, 47 exceedences out of 153 samples, and 36 exceedences out of 153 samples at four separate locations (the West End, Buoy Line, Swim Area, and East End). (The "p" value used was 0.1.) The final RWQCB staff recommendation was to list the Dana Point Harbor at Baby Beach. The hydrologic sub-area 901.14 (Dana Point HSA) includes the entire Dana Point Harbor as well as the Beach segment. Dana Point Harbor is recommended to be listed for dissolved copper.
Spatial representation	Sampled within 400 yards (0.2 miles) of discharge point.
Temporal representation	
Data type	Numerical data.
Use of standard method	Orange County Environmental Health Care Agency.
Potential Source(s) of Pollutant	Sewage spills/leaks, urban runoff, other point sources, nonpoint sources, and domestic/wild animals.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	A. After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that this water body should be added (as recommended by the RWQCB) to the section 303(d) list because applicable water quality standards are exceeded a significant amount of the time. The reason is that an adequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 9: Dana Point Harbor (was Dana Point Harbor at Baby Beach [was + Bacterial Indicators (total/fecal coliform, enterococci)

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses have been established for and apply to the water body.
4. Water quality standard used is applicable.
5. The evaluation guideline used to interpret narrative water quality standards is adequate.
6. Data are numerical.
7. Standard methods were used.
8. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

B. Change name (to agree with RWQCB staff's "Table 4" entry for hydrologic descriptor 901.14.

Region 9: Felicita Creek
Total Dissolved Solids

Water Body	Felicita Creek
Stressor/Media/Beneficial Use	Total Dissolved Solids/Water/MUN, AGR
Data quality assessment. Extent to which data quality requirements met.	City of San Diego WQ Laboratory
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (500 mg/L) used.
Water Body-specific Information	Data age = 2 years.
Data used to assess water quality	Sampling by the City of San Diego showed the Basin Plan objective to be exceeded for more than 10% of the time during a one year period. Near Quiet Hills Farm Road, from April to June 1999, 3 of 3 samples (100%) exceeded the objective, with a mean of 1343.3 mg/L and a median of 1340.0 mg/L. Near East Mission Road, from April 1999 to April 2000, 10 of 11 samples (91%) exceeded the objective, with a mean of 1088.3 mg/L and a median of 1330.0 mg/L. From January 2001 to July 2001, 10 of 10 samples (100%) exceeded the objective, with a mean of 1308.1 mg/L and a median of 1365.0 mg/L. The data indicate TDS concentrations to be increasing over this time period, but the data represent only a short temporal span.
Spatial representation	Two stations; 2 miles of Creek covered.
Temporal representation	Sampling occurred between April 1999 and May 2001.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Anthropogenic sources, imported water, evaporation, and natural salt sources. Also, urban runoff, agriculture runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical.

6. Standard methods were used.
7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 9: Forester Creek (was "Forrester Creek")
pH

Water Body	Forester Creek (was "Forrester Creek")
Stressor/Media/Beneficial Use	pH/Water/WARM, COLD, WILD
Data quality assessment. Extent to which data quality requirements met.	NPDES monitoring; City spill reports.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (6.5-8.5) used.
Water Body-specific Information	Data age = 1-4 years.
Data used to assess water quality	Data collected by the City of El Cajon show that 28 of 34 pH samples (82%) exceeded the Basin Plan objective. The average pH value was 9.0 and the median value was 8.9. In addition, spill reports from the City of El Cajon record a spill of approximately 1000 gallons of sodium hydroxide into Forrester Creek in July 2000. Measurements of pH were high before and after this reported spill. Existing regulatory actions may not be sufficient to protect Forrester Creek from high pH.
Spatial representation	Six drainage areas.
Temporal representation	Samples were collected between September 1994 and January 2001.
Data type	Numerical data.
Use of standard method	NPDES procedures.
Potential Source(s) of Pollutant	Industrial spills, urban runoff, other point sources, nonpoint sources, lack of shade cover, light penetration, (solar) heating of the water, increased photosynthesis, leached concrete components.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	A. After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of season and age of the data were considered.

Region 9: Forester Creek (was "Forrester Creek")
pH

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

B. Change name from "Forrester" to "Forester Creek" (correct spelling).

Region 9: Forester Creek (was "Forrester Creek")
Fecal Coliform

Water Body	Forester Creek (was "Forrester Creek")
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Padre Dam Municipal Water District Receiving Water Sampling/analysis
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan): For single samples, the Basin Plan1 objective states that no more than 10% of the total samples during any 30-day period shall exceed 400 colonies/100 mL.
Water Body-specific Information	Data age = 3 years.
Data used to assess water quality	Sampling was done by the Padre Dam Municipal Wastewater District intermittently. Data was taken once a month for October-March and twice a month for April-October. The data shows that 14 of 38 samples (37%) in both wet and dry weather had levels of fecal coliform in excess of 400 Most Probable Number (MPN)/mL.
Spatial representation	One monitoring site.
Temporal representation	Samples were collected between October 1997 and September 2000.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Urban runoff, other point sources, nonpoint sources, and sewage spills.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	A. After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of season, storm events, and age of the data were considered. An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 9: Forester Creek (was "Forrester Creek")
Fecal Coliform

B. Change name from "Forrester" to "Forester Creek" (correct spelling).

Region 9: Forester Creek (was "Forrester Creek")
Total Dissolved Solids

Water Body	Forester Creek (was "Forrester Creek")
Stressor/Media/Beneficial Use	Total Dissolved Solids/Water/MUN
Data quality assessment. Extent to which data quality requirements met.	Padre Dam Municipal Water District Receiving Water Sampling/analysis.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	The Basin Plan1 objective for surface waters in the lower portion of hydrologic unit sub area 907.12 is 1500 mg/L. This objective is not to be exceeded more than 10% of the time during any one-year period.
Water Body-specific Information	Data age = 1-4 years.
Data used to assess water quality	Basin Plan objective was exceeded for more than 10% of the time during a one-year period from September 1997 to September 1998. 17 of 18 samples (94%) exceeded the objective, with a mean of 1667.3 mg/L and a median of 1738.0 mg/L (15.9% above the objective). From October 1998 to October 1999, 16 of 20 samples (80%) exceeded the objective, with a mean of 1647.6 mg/L and a median of 1706.0 mg/L (13.7% above the objective). From November 1999 to December 2000, 19 of 21 samples (95%) exceeded the objective, with a mean of 1589.7 mg/L and a median of 1656.0 mg/L (10.4% above the objective).
Spatial representation	One sample site.
Temporal representation	Samples were collected between September 1997 and December 2000.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Anthropogenic sources, imported water, evaporation, and natural salt sources. Also, urban runoff, agriculture runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	A. After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical.

6. Standard methods were used.
7. Other water body- or site-specific information including the age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderately high.

B. Change name from "Forrester" to "Forester Creek" (correct spelling).

Region 9: Green Valley Creek
Sulfate

Water Body	Green Valley Creek
Stressor/Media/Beneficial Use	Sulfate/Water/MUN
Data quality assessment. Extent to which data quality requirements met.	City of San Diego WQ Laboratory.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (250 mg/L) used.
Water Body-specific Information	Data age = 1-2 years.
Data used to assess water quality	Data from the City of San Diego Water Quality Lab from April 1999 to July 2001 show the Basin Plan objective to be exceeded for more than 10% of the time during a one-year period. From April 1999 to April 2000, 8 of 13 samples (62%) exceeded the objective, with a mean of 305.1 mg/L and a median of 313.0 mg/L. From January 2001 to July 2001, 6 of 10 samples (60%) exceeded the objective, with a mean of 355.7 mg/L and a median of 447.0 mg/L.
Spatial representation	Only one station.
Temporal representation	Samples collected between April 1999 and July 2001. It should be noted that the majority of the sampling occurred during the months of January, February, March and April. This is generally considered to be the rainy season in San Diego.
Data type	Numerical data.
Use of standard method	NPDES procedures.
Potential Source(s) of Pollutant	Urban runoff, other point sources, nonpoint sources, and natural sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

Region 9: Green Valley Creek
Sulfate

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 9: Hodges, Lake (was Lake Hodges [was Hodges Reservoir]) Total Dissolved Solids

Water Body	Hodges, Lake (was Lake Hodges [was Hodges Reservoir])
Stressor/Media/Beneficial Use	Total Dissolved Solids/Water/AGR
Data quality assessment. Extent to which data quality requirements met.	City of San Diego WQ Laboratory.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (500 mg/L) used.
Water Body-specific Information	Data age = 4 years.
Data used to assess water quality	Data from the City of San Diego Water Quality Lab from September 1998 to December 2000 show the Basin Plan objective to be exceeded for more than 10% of time during a one-year period. From September 98 to September 99, 5 of 5 samples (100%) exceeded the objective, with a mean of 653.6 mg/L and a median of 659.0 mg/L. From December 99 to December 00, 5 of 5 samples (100%) exceeded the objective, with a mean of 770.2 mg/L and a median of 754.0 mg/L.
Spatial representation	Two representative sampling stations.
Temporal representation	September 1998-December 2000.
Data type	Numerical data.
Use of standard method	City of San Diego WQ Laboratory.
Potential Source(s) of Pollutant	Anthropogenic sources, imported water, evaporation, and natural salt sources. Also, urban runoff, agriculture runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

Region 9: Hodges, Lake (was Lake Hodges [was Hodges Reservoir])
Total Dissolved Solids

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 9: Hodges, Lake (was Lake Hodges [was Hodges Reservoir]) Phosphorus

Water Body	Hodges, Lake (was Lake Hodges [was Hodges Reservoir])
Stressor/Media/Beneficial Use	Phosphorus/Water/WARM, COLD, WILD, RARE, MUN, IND, PROC, AGR, REC-1, REC-2
Data quality assessment. Extent to which data quality requirements met.	City of San Diego WQ Laboratory, (narrative) descriptions by SDWD.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) used.
Water Body-specific Information	Data age = 4 years.
Data used to assess water quality	Data from the City of San Diego Water Quality Lab from July 1997-May 2001 show that 5 locations exceeded the Basin Plan objective for more than 10% of the time during a one-year period. A total of 60 exceedences were recorded for 97 samples collected at the five locations in 1997 through 2001 (62%).
Spatial representation	The first sampling location is near the boat launch ramp. The rest of the sampling points are located at various depths at Station A, which is in front of the reservoir dam and outfall structure to the flume delivering water to Badger Filtration Plant.
Temporal representation	July 1997-May 2001.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Urban runoff, local dairies, agriculture, orchards, other point sources and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

Region 9: Hodges, Lake (was Lake Hodges [was Hodges Reservoir]) Phosphorus

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 9: Hodges, Lake (was Lake Hodges [was Hodges Reservoir]) Nitrogen

Water Body	Hodges, Lake (was Lake Hodges [was Hodges Reservoir])
Stressor/Media/Beneficial Use	Nitrogen/Water/WARM, COLD, WILD, RARE, MUN, IND, PROC, AGR, REC-1, REC-2
Data quality assessment. Extent to which data quality requirements met.	City of San Diego WQ Laboratory, (narrative) descriptions by SDWD.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	Measurements are related to the Basin Plan WQO.
Water Body-specific Information	Data age = 4 years.
Data used to assess water quality	Data from the City of San Diego Water Quality Lab from July 1997-May 2001 show that 5 locations exceeded the Basin Plan objective for more than 10% of the time during a one-year period.
Spatial representation	The first sampling location is near the boat launch ramp. The rest of the sampling points are located at various depths at Station A, which is in front of the reservoir dam and outfall structure to the flume delivering water to Badger Filtration Plant.
Temporal representation	July 1997-May 2001.
Data type	Numerical data.
Use of standard method	City of San Diego WQ Laboratory, (narrative) descriptions by SDWD.
Potential Source(s) of Pollutant	Urban runoff, local dairies, agriculture, orchards, other point sources and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. An adequate number of the water quality measurements exceeded the water

quality standard. The staff confidence that standards were exceeded is high.

Region 9: Hodges, Lake (was Lake Hodges [was Hodges Reservoir])
Color

Water Body	Hodges, Lake (was Lake Hodges [was Hodges Reservoir])
Stressor/Media/Beneficial Use	Color/Water/MUN, REC-2
Data quality assessment. Extent to which data quality requirements met.	City of San Diego WQ Laboratory.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (15 color units) used.
Water Body-specific Information	Data age = 4 years.
Data used to assess water quality	Data from the City of San Diego Water Quality Lab from September 1997 to December 2000 show the Basin Plan objective to be exceeded for more than 10% of the time during a one-year period. From March 1998 to March 1999, 4 of 4 samples (100%) exceeded the objective, with a mean of 53.6 color units and a median of 37.3 color units. From June 1999 to June 2000, 5 of 5 samples (100%) exceeded the objective, with a mean of 65.8 color units and a median of 78.0 color units. In September and December of 2000, 2 of 2 samples (100%) exceeded the objective, with a mean and median of 64.0 color units.
Spatial representation	One station.
Temporal representation	Samples collected between September 1997 and December 2000.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Urban runoff, other point sources and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

Region 9: Hodges, Lake (was Lake Hodges [was Hodges Reservoir]) Color

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 9: Kit Carson Creek
Total Dissolved Solids

Water Body	Kit Carson Creek
Stressor/Media/Beneficial Use	Total Dissolved Solids/Water/AGR
Data quality assessment. Extent to which data quality requirements met.	City of San Diego WQ Laboratory.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (500 mg/L) used.
Water Body-specific Information	Data age = 3 years.
Data used to assess water quality	Data from the City of San Diego Water Quality Lab from April 1999 to May 2001 show the Basin Plan objective to be exceeded for more than 10% of the time during a one-year period. From April 1999 to April 2000, 10 of 11 samples (91%) exceeded the objective, with a mean of 990.5 mg/L and a median of 1200.0 mg/L. From January 2001 to July 2001, 10 of 10 samples (100%) exceeded the objective, with a mean of 1170.9 mg/L and a median of 1300.0 mg/L.
Spatial representation	One sampling station, 1/2 mile of Creek.
Temporal representation	Samples collected between April 1999 and May 2001. It should be noted that the majority of the sampling occurred during the months of January, February, March and April. This is generally considered to be the rainy season in San Diego.
Data type	Numerical data.
Use of standard method	NPDES procedures.
Potential Source(s) of Pollutant	Anthropogenic sources, imported water, evaporation, and natural salt sources. Also, urban runoff, agriculture runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used.

7. Other water body- or site-specific information including the effects of season, storm events, and age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 9: Loma Alta Slough
Bacterial Indicators (was "high coliform count")

Water Body	Loma Alta Slough
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Mission Bay Shoreline (was Mission Bay, at Rose Creek Mouth + Eutrophic (no change), Lead (no change), Bacterial Indicators (was hig +

Water Body	Mission Bay Shoreline (was Mission Bay, at Rose Creek Mouth and Tecolote Creek Mouth)
Stressor/Media/Beneficial Use	Eutrophic (no change), Lead (no change), Bacterial Indicators (was high coliform count)
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	A. The specific locations of impacts to water quality due to lead and eutrophication in Mission Bay should be specified as "Rose and Tecolote Creek Mouths." Each location accounts for one-half of the one acre listed as impacted. These specifications come from interpretation of the 1996 Section 303(d) Fact Sheet in support of that years' listing of Mission Bay. B. All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	A. Change name from "Mission Bay" to "Mission Bay, at Rose Creek Mouth and Tecolote Creek Mouth." B. Change pollutant designation from "high coliform count" to "bacterial indicators."

Region 9: Murrieta Creek
Phosphorus

Water Body	Murrieta Creek
Stressor/Media/Beneficial Use	Phosphorus/Water/REC-1, REC-2, WARM, COLD
Data quality assessment. Extent to which data quality requirements met.	Final WQ Studies and Proposed Watershed Monitoring Program Report, SDRWQCB Monitoring data.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (biostimulatory objective = 0.1 mg/ml) used.
Water Body-specific Information	Data age = 2 years.
Data used to assess water quality	12/97-11/98: 4/5 (80%) exceedences, mean=0.28 mg/ml; 02 and 05/99: 2/2 (100%) violations, mean=0.21 mg/ml.
Spatial representation	Samples at start and finish of reach.
Temporal representation	Sampling from November 1997 to May 1999.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Urban runoff, other point sources and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of season and age of the data were considered. An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 9: Orange County Coastline
Trash

Water Body	Orange County Coastline
Stressor/Media/Beneficial Use	Trash/Water/REC-2, Aquatic Life
Data quality assessment. Extent to which data quality requirements met.	The sampling procedures, collection approach, data analysis, and estimation procedures are clearly described (Moore et al., 2000. Composition and distribution of beach debris in Orange County, California).
Linkage between measurement endpoint and benefical use or standard	The California Ocean Plan designates the beneficial uses of the ocean waters of the State that shall be protected including water contact and non-contact recreation, including aesthetic enjoyment; and marine habitat. The California Ocean Plan has applicable narrative water quality objectives as follows: - Floating particulates and grease and oil shall not be visible. - The discharge of waste shall not cause aesthetically undesirable discoloration of the ocean surface. - The rate of deposition of inert solids and the characteristics of inert solids in ocean sediments shall not be changed such that benthic communities are degraded.
Utility of measure for judging if standards or uses are not attained	The measures used in the study were abundance of trash particles and the weight of trash along the coastline. These data were compared to California Coastal Cleanup Day collection data.
Water Body-specific Information	Estimates were made of the percent of shoreline affected, types of habitat affected (sandy beach and rocky shore), Trash type (including plastics, cigarette butts, paper, wood metal glass rubber, pet and bird droppings, cloth, and other trash). Even thought the study measured the amounts of trash on the beaches for the water's edge to the first pavement or rocky cliff, this listing only applies to the portion of the beach regularly in contact with ocean water.
Data used to assess water quality	Estimated total abundance of trash was 106 million items weighing 13 tons. Pre-production plastic pellets, foamed plastics and hard plastics made up 99% of the total abundance and 51% of the total weight. Cigarette butts were fourth in total abundance and accounted for less than 1% of the abundance and weight.
Spatial representation	Beach debris was surveyed and collected at 43 sites from Seal Beach to San Clemente on the Orange County coast. The data were collected using a stratified random design, stratified by shoreline type. Each sample site was delineated as an area 25 yards in length and extending from the water's edge to the first pavement or rocky cliff. The study assessed trash on beaches in both Region 8 and Region 9.

Region 9: Orange County Coastline
Trash

Temporal representation	Data were collected between August 2 and September 18, 1998.
Data type	Numerical data.
Use of standard method	See Quality Assurance section above. Data were collected using approaches from other debris studies outside the U.S.
Potential Source(s) of Pollutant	Four sources were identified: (1) littering by beachgoers, (2) wind currents from upland sources, (3) runoff from land-based activities, and (4) overboard disposal form boating activities (including accidental spills). The data suggest that water-based sources (runoff and overboard disposal) were more important than direct littering or wind.
Alternative Enforceable Program	The Orange County Areawide Urban Stormwater Runoff Permit, Order No. R9-2002-0001 issued to Orange County and its incorporated cities does not have enforceable provisions in place to address litter, debris, and trash in this water body. The permit contains no specific provisions addressing trash, except trash is mentioned as a pollutant and the permit requires the permittee to clean storm water controls of trash before the rainy season.
RWQCB Recommendation	None.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses apply. 4. Water quality standards used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of different sources and age of the data were considered. An adequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 9: Pacific Ocean Shoreline, Aliso HSA (was Pacific Ocean, Alis + Bacterial Indicators (was "high coliform count").

Water Body	Pacific Ocean Shoreline, Aliso HSA (was Pacific Ocean, Aliso HSA 901.13)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count").
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Pacific Ocean Shoreline, Buena Vista (Creek) HA (was Pacifi + Bacterial Indicators (was "high coliform count")

Water Body	Pacific Ocean Shoreline, Buena Vista (Creek) HA (was Pacific Ocean, Buena Vista HA 901.20)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Pacific Ocean Shoreline, Coronado (Beach)
Bacterial Indicators (was "high coliform count")

Water Body	Pacific Ocean Shoreline, Coronado (Beach)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")/Water/REC-1, REC-2
Data quality assessment. Extent to which data quality requirements met.	City of Coronado NPDES monitoring.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	Bacterial standards are linked to REC-1 beneficial use.
Water Body-specific Information	Data age = 2 years.
Data used to assess water quality	Cease-and-Desist Orders 97-69 and 98-74 issued to City of Coronado. City implemented wet/dry weather diversion systems and ultra-violet (UV) treatment to reduce sewage discharge problems. City began semi-annual WDRs reporting based on weekly monitoring at four Coronado Beach sites. Surf Zone C (1/13/00-1/2/01): 7/153 (5%) possible exceedences. Surf Zone A (5/26/99-12/28/00): 7/249 (3%) possible exceedences. Central Beach (11/1/99-1/2/01): 7/183 (4%) possible exceedences. Ave. del Sol (4/3/00-1/2/01): 6/120 (5%) possible exceedences. Total: 27/705 (4%) possible exceedences.
Spatial representation	Four sample sites covering the extent of the to-be-delisted area.
Temporal representation	Weekly samples.
Data type	Numerical data.
Use of standard method	City of Coronado NPDES monitoring.
Potential Source(s) of Pollutant	Sewage spills/leaks, urban runoff, other point sources, nonpoint sources, and domestic/wild animals.
Alternative Enforceable Program	Cease-and-Desist Orders led to WDRs and appropriate steps to reduce pollution. City has taken appropriate initial steps.
RWQCB Recommendation	Delist.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff conclude that the water body should not be placed on the section 303(d) list because applicable water quality standards are not exceeded. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Water quality standard used is applicable. 4. Data are numerical. 5. Standard methods were used. 6. Other water body- or site-specific information including the effects of season and age of the data were considered.

Region 9: Pacific Ocean Shoreline, Coronado (Beach)
Bacterial Indicators (was "high coliform count")

An inadequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were not exceeded is high.

Region 9: Pacific Ocean Shoreline, Dana Point HSA (was Pacific Ocean, + Bacterial Indicators (was "high coliform count")

Water Body	Pacific Ocean Shoreline, Dana Point HSA (was Pacific Ocean, Dana Point HSA 901.14)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Pacific Ocean Shoreline, Escondido Creek HSA (was Pacific O + Bacterial Indicators (was "high coliform count")

Water Body	Pacific Ocean Shoreline, Escondido Creek HSA (was Pacific Ocean, Escondido HSA 904.60)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Pacific Ocean Shoreline, Laguna Beach HSA (was Pacific Ocea + Bacterial Indicators (originally high coliform count)

Water Body	Pacific Ocean Shoreline, Laguna Beach HSA (was Pacific Ocean Shoreline, Laguna Beach and San Joaquin Hills [was Pacific Ocean, Laguna Beach HSA])
Stressor/Media/Beneficial Use	Bacterial Indicators (originally high coliform count)
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	A. Specific segments described in the 1998 list were inadvertently placed within incorrect hydrologic boundaries. The RWQCB recommends that these individual segments be placed into the correct hydrologic boundaries, correcting the extents of impairment for several coastal bacterial listings. Specifically, the "Pacific Ocean, Laguna Beach HSA" listing should be renamed the "Pacific Ocean, Laguna Beach and San Joaquin Hills HSAs." This change will correctly define the hydrologic sub-area where the impairment was found. B. All previous (1998) listings of "High Coliform Count" should be changed to "Bacterial Indicators" in order to ensure consistency between the 1998 List and the 2002 Updated List. In 1998 listings, "bacterial indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "bacterial indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	A. Rename water body from "Pacific Ocean, Laguna Beach HSA" and "Pacific Ocean Shoreline, Laguna Beach and San Joaquin Hills" to "Pacific Ocean Shoreline, Laguna Beach HSA." B. Change "pollutant" designation from "high coliform count" to "Bacterial Indicators."

Region 9: Pacific Ocean Shoreline, Loma Alta HA (was Pacific Ocean, L + Bacterial Indicators (was "high coliform count")

Water Body	Pacific Ocean Shoreline, Loma Alta HA (was Pacific Ocean, Loma Alta HSA 904.10)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Pacific Ocean Shoreline, Lower San Juan HSA (was Pacific Oc + Bacterial Indicators (was "high coliform count")

Water Body	Pacific Ocean Shoreline, Lower San Juan HSA (was Pacific Ocean, Lower San Juan HSA)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Pacific Ocean Shoreline, Miramar Reservoir HA (was Pacific + Bacterial Indicators

Water Body	Pacific Ocean Shoreline, Miramar Reservoir HA (was Pacific Ocean Shoreline, Torrey Pines State Beach at Los Penasquitos Lagoon outlet)
Stressor/Media/Beneficial Use	Bacterial Indicators/Water/REC-1, REC-2
Data quality assessment. Extent to which data quality requirements met.	San Diego County Department of Environmental Health.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	Bacterial standards are linked to REC-1 beneficial use.
Water Body-specific Information	Data age = 1 year.
Data used to assess water quality	Analysis of applicable 2000, 2001, and 2002 data by the RWQCB staff showed 10 exceedence days out of 89 samples, 0 exceedences out of 34 samples, and 1 exceedence out of 21 samples, from dry season and year-round sampling events. (The "p" values used were 0.04 and 0.1.) The final RWQCB staff recommendation is not to list the Pacific Ocean Shoreline, Torrey Pines State Beach at Los Penasquitos Lagoon outlet. Hydrologic Sub-area 906.10, which includes the Pacific Ocean Shoreline, Torrey Pines State Beach at Los Penasquitos Lagoon outlet, is a portion of the larger area "Los Penasquitos Lagoon" This larger area was not listed for bacterial problems in 1998, but was listed for sedimentation/siltation. Not specifically listing the Pacific Ocean Shoreline, Torrey Pines State Beach at Los Penasquitos Lagoon outlet, is not intended to negate or otherwise affect the prior listing of the Los Penasquitos Lagoon for sedimentation/siltation.
Spatial representation	Sampled within 400 yards (0.2 miles) of discharge point.
Temporal representation	32 days of closures/advisories.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Sewage spills/leaks, urban runoff, other point sources, nonpoint sources, and domestic/wild animals.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	This is a correction of an earlier RWQCB recommendation. Torrey Pines State Beach at Del Mar (Anderson Canyon) was incorrectly placed in 905.00 HU. It belongs in the 906.10 HA. This is not a new recommendation.
SWRCB Staff Recommendation	Rename "Pacific Ocean Shoreline, Torrey Pines State Beach at Los Penasquitos Lagoon outlet" entry (a prior RWQCB recommendation). After reviewing the available data and information and the RWQCB

documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses have been established for and apply to the water body.
4. Water quality standard used is applicable.
5. The evaluation guideline used to interpret narrative water quality standards is adequate.
6. Data are numerical.
7. Standard methods were used.
8. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

An adequate number of water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 9: Pacific Ocean Shoreline, Ocean Beach at Bermuda Avenue Bacterial Indicators

Water Body	Pacific Ocean Shoreline, Ocean Beach at Bermuda Avenue
Stressor/Media/Beneficial Use	Bacterial Indicators/Water/REC-1, REC-2
Data quality assessment. Extent to which data quality requirements met.	San Diego County Department of Environmental Health.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	Bacterial standards are linked to REC-1 beneficial use.
Water Body-specific Information	Data collected in 1999, 2000, and 2001.
Data used to assess water quality	Analysis of applicable 1999, 2000, and 2001 data by the RWQCB staff showed 1 usable exceedence day out of 13 usable samples, 3 exceedences out of 21 samples, 1 exceedence out of 21 samples (all from dry season sampling events), and 7 out of 7 exceedences during wet months. (The "p" values used were 0.04 and 0.1.) The final RWQCB staff recommendation is not to list the Pacific Ocean Shoreline at Ocean Beach. Hydrologic Sub-area 907.11, which includes the Pacific Ocean Shoreline, Ocean Beach at Bermuda Avenue, also encompasses the Lower San Diego River, which discharges near Ocean Beach. This area is also called San Diego River mouth, a.k.a. Dog Beach (907.11). The San Diego River (lower) is recommended for listing for bacterial indicators. The San Diego River mouth a.k.a. Dog Beach (907.11) was listed, albeit titled "Pacific Ocean, San Diego HU 907.00) in 1998. Excluding the Pacific Ocean Shoreline at Ocean Beach from the 2002 303(d) list does not negate or otherwise affect the decision to list the San Diego River (lower) or the previous (1998) listing of the San Diego River mouth at Dog Beach (907.11)/Pacific Ocean, San Diego HU 907.00.
Spatial representation	Sampled within 400 yards (0.2 miles) of discharge point.
Temporal representation	1999 - 2001 data.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Sewage spills/leaks, urban runoff, other point sources, nonpoint sources, and domestic/wild animals.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	Do Not List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that this water body should not be specifically added (as originally recommended) to the section 303(d) list because applicable water quality standards are not exceeded a significant amount of the time. This determination does NOT

eliminate the decision to list the lower San Diego River, which shares the same hydrologic sub-area number (907.11), for bacterial indicators.

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. Too few samples exceeded the water quality standard.

The reason is that an inadequate amount of the water quality measurements exceeded the water quality standard (see information under "data used"). The staff confidence that standards were exceeded is extremely low.

Region 9: Pacific Ocean Shoreline, San Clemente HA (was Pacific Ocean + Bacterial Indicators (originally high coliform count)

Water Body	Pacific Ocean Shoreline, San Clemente HA (was Pacific Ocean Shoreline, San Clemente, San Mateo Canyon, and San Onofre [was "Pacific Ocean, San Clemente HA 901.30"])
Stressor/Media/Beneficial Use	Bacterial Indicators (originally high coliform count)
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	A. Specific segments described in the 1998 list were inadvertently placed within incorrect hydrologic boundaries. The RWQCB recommends that these individual segments be placed into the correct Hydrologic boundaries, correcting the extents of impairment for several coastal bacterial listings. Specifically, the "Pacific Ocean, San Clemente HA" listing should be renamed the "Pacific Ocean, San Clemente, San Mateo and San Onofre HSA." This change will correctly define the hydrologic sub-area where the impairment was found. B. All previous (1998) listings of "High Coliform Count" should be changed to "Bacterial Indicators" in order to ensure consistency between the 1998 List and the 2002 Updated List. In 1998 listings, "bacterial indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "bacterial indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	A. Rename water body from "Pacific Ocean, San Clemente HA 901.30" to "Pacific Ocean Shoreline, San Clemente, San Mateo Canyon, and San Onofre." B. Change "pollutant" designation from "high coliform count" to

Region 9: Pacific Ocean Shoreline, San Clemente HA (was Pacific Ocean + Bacterial Indicators (originally high coliform count)

"bacterial indicators."

Region 9: Pacific Ocean Shoreline, San Diego HU (was Pacific Ocean, S + Bacterial Indicators (was "high coliform count")

Water Body	Pacific Ocean Shoreline, San Diego HU (was Pacific Ocean, San Diego HU 907.00)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Pacific Ocean Shoreline, San Dieguito HU (was Pacific Ocean + Bacterial Indicators (was "high coliform count")

Water Body	Pacific Ocean Shoreline, San Dieguito HU (was Pacific Ocean, San Dieguito HU 905.00)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Pacific Ocean Shoreline, San Joaquin Hills HSA (was Pacific + Bacterial Indicators

Water Body	Pacific Ocean Shoreline, San Joaquin Hills HSA (was Pacific Ocean Shoreline, Laguna Beach and San Joaquin Hills [was Pacific Ocean, Laguna Beach HSA])
Stressor/Media/Beneficial Use	Bacterial Indicators/Water/REC-1, REC-2
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	Measurements can be compared to bacterial standards directly.
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	Sewage spills/leaks, urban runoff, other point sources, nonpoint sources, and domestic/wild animals.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	Split existing, 1998, listing into two in order to more precisely indicate extent/location of impact of pollution.
SWRCB Staff Recommendation	Per RWQCB recommendation, split existing, 1998, listing into two in order to more precisely indicate extent/location of impact of pollution.

Region 9: Pacific Ocean Shoreline, San Luis Rey HU (was Pacific Ocean + Bacterial Indicators (was "high coliform count")

Water Body	Pacific Ocean Shoreline, San Luis Rey HU (was Pacific Ocean, San Luis Rey HU 903.00)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Pacific Ocean Shoreline, San Marcos HA (was Pacific Ocean, + Bacterial Indicators (was "high coliform count")

Water Body	Pacific Ocean Shoreline, San Marcos HA (was Pacific Ocean, San Marcos HA 904.50)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Pacific Ocean Shoreline, San Onofre State Beach/San Mateo C + Bacterial Indicators

Water Body	Pacific Ocean Shoreline, San Onofre State Beach/San Mateo Creek Outlet
Stressor/Media/Beneficial Use	Bacterial Indicators/Water/REC-1, REC-2
Data quality assessment. Extent to which data quality requirements met.	San Diego County Department of Environmental Health.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	Measurements can be compared to bacterial standards directly.
Water Body-specific Information	Data age = 1 year.
Data used to assess water quality	Analysis of applicable 1999, 2000, and 2001 data by the RWQCB staff showed 0 usable exceedence days out of 10 usable samples, 2 exceedences out of 36 samples, and 0 exceedences out of 24 samples, all from dry or mostly dry season sampling events. (The "p" value used was 0.04.) Hydrologic Sub-area 901.51, which includes the Pacific Ocean Shoreline, San Onofre State Beach/San Mateo Creek Outlet, is a portion of the larger area "San Clemente HA (901.30), San Mateo Canyon HA (901.40) and San Onofre HA (901.50)." This larger area was listed for bacterial problems in 1998 under the title "Pacific Ocean Shoreline, San Clemente HA 901.30." The RWQCB requested that the name be changed/expanded to correctly include the "San Mateo Canyon" and "San Onofre" portions. Not specifically listing the Pacific Ocean Shoreline at San Onofre State Beach, is not intended to negate or otherwise affect the prior listing of the Pacific Ocean Shoreline, San Clemente, San Mateo Canyon, and San Onofre (i.e., .Pacific Ocean Shoreline, San Clemente).
Spatial representation	Sampled within 400 yards (0.2 miles) of discharge point.
Temporal representation	1999-2001 data.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Sewage spills/leaks, urban runoff, other point sources, nonpoint sources, and domestic/wild animals.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	Do Not List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that this water body should not be specifically added to the section 303(d) list because applicable water quality standards are not exceeded a significant amount of the time. This determination is NOT intended to affect or change any other water body segment of sub-area numbers 901.51, 901.40, or 901.30.

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. Too few samples exceeded the water quality standard.

The reason is that an inadequate amount of the water quality measurements exceeded the water quality standard (see information under "data used"). The staff confidence that standards were exceeded is extremely low.

Region 9: Pacific Ocean Shoreline, Scripps HA (was Pacific Ocean, Scr + Bacterial Indicators (was "high coliform count")

Water Body	Pacific Ocean Shoreline, Scripps HA (was Pacific Ocean, Scripps HA 906.30)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Pacific Ocean Shoreline, South Capistrano Beach at Beach Ro + NA

Water Body	Pacific Ocean Shoreline, South Capistrano Beach at Beach Road
Stressor/Media/Beneficial Use	NA
Data quality assessment. Extent to which data quality requirements met.	NA
Linkage between measurement endpoint and benefical use or standard	NA
Utility of measure for judging if standards or uses are not attained	NA
Water Body-specific Information	NA
Data used to assess water quality	NA
Spatial representation	NA
Temporal representation	NA
Data type	NA
Use of standard method	NA
Potential Source(s) of Pollutant	NA
Alternative Enforceable Program	NA
RWQCB Recommendation	The hydrologic sub-area 901.27 (Lower San Juan HSA) was previously listed in 1998. Reference to the specific segment of South Capistrano Beach at Beach Road (also HSA 901.27) should be added to increase in the extent of impairment of the previously listed water body.
SWRCB Staff Recommendation	Previous listing of this water body by the SWRCB resulted from a misunderstanding. Per the actual RWQCB recommendation, do not add this water body as a separate listing. Instead, reference it in a note within the listing for "Pacific Ocean Shoreline, Lower San Juan HSA."

Region 9: Pacific Ocean Shoreline, Tijuana HU (was Pacific Ocean, Tij + Bacterial Indicators (was "high coliform count")

Water Body	Pacific Ocean Shoreline, Tijuana HU (was Pacific Ocean, Tijuana HU 911.00)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Pine Valley Creek (Upper)
Enterococci

Water Body	Pine Valley Creek (Upper)
Stressor/Media/Beneficial Use	Enterococci/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	SR: USDA Forest Service, FS: City of San Diego Water Dept.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (108 colonies/100 mL) for lightly-moderately used areas.
Water Body-specific Information	Data age = 3 years.
Data used to assess water quality	6/11 (55%) violations of Basin Plan objective, log mean = 223 coliform-forming units.
Spatial representation	Five sampling locations along Creek.
Temporal representation	Unknown.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	From horse stables, cattle grazing in and near the creek, and human encampments.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the effects of the age of the data was considered. An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 9: Prima Deshecha Creek
Phosphorus

Water Body	Prima Deshecha Creek
Stressor/Media/Beneficial Use	Phosphorus/Water/REC-1, REC-2, WARM, WILD
Data quality assessment. Extent to which data quality requirements met.	NPDES permit monitoring.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (biostimulatory substance index = 0.1 mg/L) used.
Water Body-specific Information	Data age = 1-4 years.
Data used to assess water quality	7/97-6/98: 13/16 (81%) exceedences, mean=1.01 mg/mL; 8/98-7/99: 24/29 (83%) exceedences, mean=0.69 mg/mL; 10/99-6/00: 9/9 (100%) exceedences, mean=1.37 mg/mL, all from wet months.
Spatial representation	One sample site.
Temporal representation	July 1997 to June 2000 during wet weather months.
Data type	Numerical data.
Use of standard method	NPDES permit monitoring.
Potential Source(s) of Pollutant	Urban runoff, other point sources and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 9: Prima Deshecha Creek
Turbidity

Water Body	Prima Deshecha Creek
Stressor/Media/Beneficial Use	Turbidity/Water/WARM, WILD
Data quality assessment. Extent to which data quality requirements met.	NPDES permit monitoring.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (20 Nephelometric Turbidity Units [NTU]) used.
Water Body-specific Information	Data age = 4 years.
Data used to assess water quality	7/97-6/98: 14/16 (88%) exceedences, mean=553.3 NTU; 8/98-7/99: 18/29 (62%) exceedences, mean=268.3 NTU; 10/99-6/00: 9/9 (100%) exceedences, mean=962.4 NTU, all from wet months.
Spatial representation	One sample site.
Temporal representation	Sampling from July 1997 to June 2000.
Data type	Numerical data.
Use of standard method	NPDES permit monitoring.
Potential Source(s) of Pollutant	Channelization, increased water velocity, undercutting of banks; increased turbidity; current/historic construction.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including age of the data were considered. An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 9: Rainbow Creek
Nitrate, Phosphorus (was "eutrophic")

Water Body	Rainbow Creek
Stressor/Media/Beneficial Use	Nitrate, Phosphorus (was "eutrophic")/water/MUN, AGR, IND, REC-1, REC-2, WARM, COLD, WILD
Data quality assessment. Extent to which data quality requirements met.	Data was properly collected and analyzed as part of the Final Report of Water Quality Studies & Proposed Watershed Monitoring Program for Portions of San Mateo & Santa Margarita River Watershed. Marine Corps Base, Camp Pendleton, CA. Contract No. N68711-95-D-7573, D.O. 0021.
Linkage between measurement endpoint and benefical use or standard	Measurements are directly related to Region 9's Basin Plan water quality objectives.
Utility of measure for judging if standards or uses are not attained	RWQCB (Region 9) basin plan water quality objectives for nitrogen, phosphorus: The Basin Plan states that Inland surface waters "shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growths cause nuisance or adversely affect beneficial uses." Additionally, threshold phosphorus levels shall not exceed 0.1 mg/L in flowing surface waters.1 Analogous threshold values for nitrogen compounds have not been set, however; it is stated that a ratio of N:P=10:1 shall be used. In the case of flowing surface waters, the threshold nitrogen level is therefore set at 1.0 mg/L. These objectives are not to be exceeded more than 10% of the time during any one-year period.
Water Body-specific Information	Data from Creek sampled and analyzed in 2000.
Data used to assess water quality	Nitrogen: Sampling and analysis conducted in 2000 and as compiled in the draft Total Maximum Daily Load (TMDL) for Rainbow Creek showed frequent exceedances of the Basin Plan Water Quality Objective. At Jubilee Way, 4 of 4 samples (100%) exceeded the Basin Plan objective, with a mean of 6.0 mg/L and a median of 5.9 mg/L. At Hines Nursery, 1 of 1 samples (100%) exceeded the Basin Plan objective, with a mean and median of 22.0 mg/L. At Oak Crest, 9 of 9 samples (100%) exceeded the Basin Plan objective, with a mean of 11.0 mg/L and a median of 12.0 mg/L. At Willow Glen, 25 of 25 samples exceeded the Basin Plan objective, with a mean of 9.7 mg/L and a median of 9.4 mg/L. At Riverhouse, 25 of 25 samples exceeded the Basin Plan objective, with a mean of 14.5 mg/L and a median of 15.0 mg/L. At Stage Coach, 9 of 9 samples exceeded the Basin Plan objective, with a mean of 13.7 mg/L and a median of 14.0 mg/L. Phosphorus: Sampling and analysis conducted in 2000 and as compiled in the draft TMDL for Rainbow Creek showed frequent exceedances of the Basin Plan Water Quality Objective. At Jubilee Way, 0 of 4 samples exceeded the Basin Plan objective. At Hines Nursery, 1 of 1 samples (100%) exceeded the Basin Plan objective, with a mean and median of 1.7 mg/L. At Oak Crest, 9 of 9 samples (100%) exceeded the Basin Plan objective, with a mean of 1.13 mg/L and a median of 0.99 mg/L. At Willow Glen, 25 of 25 samples exceeded the Basin Plan objective, with a mean of 0.43 mg/L and a median of 0.43 mg/L. At Riverhouse, 25 of 25 samples exceeded the Basin Plan objective, with a mean of 0.28 mg/L and a median of 0.25 mg/L. At Stage Coach, 9 of 9 samples exceeded the

Region 9: Rainbow Creek
Nitrate, Phosphorus (was "eutrophic")

	Basin Plan objective, with a mean of 0.30 mg/L and a median of 0.20 mg/L.
Spatial representation	The stations monitored in 2000 extend from just above the confluence with the Santa Margarita River (Stagecoach) to approximately 1.5 miles downstream of the headwaters (Jubilee Way). Therefore, the entire reach of the stream is proposed for listing for both nitrate and phosphorus.
Temporal representation	One year of sampling.
Data type	Numerical data was used.
Use of standard method	Standard collection and sampling procedures were used as part of the Final Report of Water Quality Studies & Proposed Watershed Monitoring Program for Portions of San Mateo & Santa Margarita River Watershed. Marine Corps Base, Camp Pendleton, CA. Contract No. N68711-95-D-7573, D.O. 0021.
Potential Source(s) of Pollutant	Sources include agriculture runoff, septic system discharges, nursery discharges, other urban runoff, and other point and non-point sources.
Alternative Enforceable Program	None.
RWQCB Recommendation	The specific impairment for Rainbow Creek should be changed from "eutrophic" to "nitrate" and "phosphorus." The original designation was based upon a faulty assumption that eutrophic conditions existed because of the elevated levels of nutrients. Data collected for development of the TMDL has revealed that eutrophic conditions do not exist, but concentrations of nitrate and phosphorus in excess of Basin Plan objectives do exist.
SWRCB Staff Recommendation	Change pollutant designation from "eutrophic" to "nitrate" and "phosphorus." After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should remain on the section 303(d) list under the new pollutant designations--"Nitrate" and "phosphorus"--because applicable water quality standards are exceeded and pollutants contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 9: San Diego Bay Shoreline, 32nd St San Diego Naval Station (w + Benthic Community Effects, Sediment Toxicity

Water Body	San Diego Bay Shoreline, 32nd St San Diego Naval Station (was San Diego Bay, San Diego Naval Station)
Stressor/Media/Beneficial Use	Benthic Community Effects, Sediment Toxicity/MAR, WILD, BIOL, EST, RARE, MIGR, and SHELL
Data quality assessment. Extent to which data quality requirements met.	NA
Linkage between measurement endpoint and benefical use or standard	NA
Utility of measure for judging if standards or uses are not attained	NA
Water Body-specific Information	NA
Data used to assess water quality	NA
Spatial representation	NA
Temporal representation	NA
Data type	NA
Use of standard method	NA
Potential Source(s) of Pollutant	NA
Alternative Enforceable Program	NA
RWQCB Recommendation	Revise name of previous, 1998, listing: San Diego Bay, San Diego Naval Station.
SWRCB Staff Recommendation	Per RWQCB recommendation, revise name of existing, 1998, listing. This is not a new listing (but does identify specific location within larger, general 1998 listing for all of San Diego Bay).

Region 9: San Diego Bay Shoreline, at B Street Pier (was San Diego Ba + Lindane

Water Body	San Diego Bay Shoreline, at B Street Pier (was San Diego Bay at B Street Pier)
Stressor/Media/Beneficial Use	Lindane
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Remove entire listing from Watch List because "at B Street Pier" was erroneously listed in the original RWQCB Staff report table.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should not be placed on any 303(d)-related list because the original recommendation referenced the water body in error.

Region 9: San Diego Bay Shoreline, at Kellogg Street Beach (Pueblo Sa + Bacterial Indicators

Water Body	San Diego Bay Shoreline, at Kellogg Street Beach (Pueblo San Diego HU [908.00] and Sweetwater HU [909.00])
Stressor/Media/Beneficial Use	Bacterial Indicators/Water/REC-1, REC-2
Data quality assessment. Extent to which data quality requirements met.	San Diego County Department of Environmental Health.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	Closures a measure of impacts on beneficial use. Listing recommendation: >10 days/year beach closures or advisories.
Water Body-specific Information	Data age = 1 year.
Data used to assess water quality	Analysis of applicable 1999, 2000, and 2001 data by the RWQCB staff showed 1 usable exceedence day out of 17 usable samples, 1 exceedence out of 33 samples, 3 exceedences out of 31 samples (all from dry season sampling events), (The "p" value used was 0.04.).
Spatial representation	Sampled within 400 yards (0.2 miles) of discharge point.
Temporal representation	1999, 2000, and 2001 data.
Data type	Numerical data.
Use of standard method	San Diego County Department of Environmental Health procedures followed.
Potential Source(s) of Pollutant	Sewage spills/leaks, urban runoff, other point sources, nonpoint sources, and domestic/wild animals.
Alternative Enforceable Program	Unknown
RWQCB Recommendation	Do not list.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that this water body should not be specifically added to the section 303(d) list, and should be specifically de-listed from the 303(d) list, because applicable water quality standards are not exceeded a significant amount of the time. This determination is NOT meant to affect other San Diego Bay areas for bacterial indicators. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. However, 2. Too few samples exceeded the water quality objective. The reason is that an inadequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is extremely low.

Region 9: San Diego Bay Shoreline, at Kellogg Street Beach (Pueblo Sa + Bacterial Indicators

Hydrologic Sub-area 908.10, the San Diego Shoreline at Point Loma, also encompasses the San Diego Bay Shoreline, at Kellogg Street Beach. Not specifically listing the San Diego Bay Shoreline, at Kellogg Street Beach is not intended to affect other waters in this sub-area, unless stated elsewhere.

Region 9: San Diego Bay Shoreline, at South Bay Power Plant (was San + Turbidity

Water Body	San Diego Bay Shoreline, at South Bay Power Plant (was San Diego Bay at South Bay Power Plant)
Stressor/Media/Beneficial Use	Turbidity/water/IND, NAV, REC-1, REC-2, COMM, BIOL, EST, WILD, RARE, MAR, MIGR, SHELL
Data quality assessment. Extent to which data quality requirements met.	A report submitted by concerned citizens, "Deadly Power," sites NPDES monitoring data, personal and agency communications, SWRCB and RWQCB orders, refereed journal articles, agency reports, and contractual studies. However, most information is non-numeric and the level of quality control/assurance is unknown.
Linkage between measurement endpoint and benefical use or standard	The information cited in the "Deadly Power" report directly relates to aquatic beneficial uses (e.g., SPWN) of the south San Diego Bay.
Utility of measure for judging if standards or uses are not attained	Numeric and narrative Basin Plan water quality objectives apply to the Plant's discharge.
Water Body-specific Information	The Information cited in the "Deadly Power" report relates directly to south San Diego Bay waters.
Data used to assess water quality	Available information in citizen-supplied reports is for the most part non-numeric. The report contains general descriptions of the potential impact of the power plant discharge, temperature effects, loss of wetlands, impacts on entrained and impinged organisms, possible impacts on sea turtles and halibut, the use of chlorine and the possible impacts, the loading of copper and zinc, and possible impacts on increased turbidity on eelgrass beds. Further study is required to verify conclusions reached.
Spatial representation	The water body area of concern is adequately covered by the information provided.
Temporal representation	Studies from the 1960s through 2000 are discussed. No dates of sample collection is provided.
Data type	Narrative information is cited.
Use of standard method	For the most part no information is report on the methods used.
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	The South Bay Power Plant facility is subject to an NPDES permit. Prompted by citizen complaints, Duke Power, manager of the South Bay Power Plant, is actively considering bolstering its monitoring program. For example: - Modifications to sampling locations to eliminate compensation for selected pollutants. - Monitoring for dissolved oxygen and metals (copper, zinc, nickel, etc.). - Total chlorine residual monitoring on a daily level, perhaps at the time of day when the plant is operating at highest capacity.

	- An increase in the number of monitoring stations (from 11). Changes to the monitoring program are scheduled to begin in the summer of 2003. Quarterly progress reports will start May of 2003. The final reports are due in February 2004.
RWQCB Recommendation	RWQCB staff recommends placing South Bay on the watch list.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the Monitoring List because the volume of supporting data are inadequate to determine if applicable water quality standards are truly exceeded. Further study, including monitoring, is necessary to confirm the possibility of impacts to beneficial uses caused by discharges from the South Bay Power Plant.

Region 9: San Diego Bay Shoreline, at South Bay Power Plant (was San + Thermal Warming

Water Body	San Diego Bay Shoreline, at South Bay Power Plant (was San Diego Bay at South Bay Power Plant)
Stressor/Media/Beneficial Use	Thermal Warming/water/IND, NAV, REC-1, REC-2, COMM, BIOL, EST, WILD, RARE, MAR, MIGR, SHELL
Data quality assessment. Extent to which data quality requirements met.	A report submitted by concerned citizens, "Deadly Power," sites NPDES monitoring data, personal and agency communications, SWRCB and RWQCB orders, refereed journal articles, agency reports, and contractual studies. However, most information is non-numeric and the level of quality control/assurance is unknown.
Linkage between measurement endpoint and benefical use or standard	The information cited in the "Deadly Power" report directly relates to aquatic beneficial uses (e.g., SPWN) of the south San Diego Bay.
Utility of measure for judging if standards or uses are not attained	Numeric and narrative Basin Plan water quality objectives apply to the Plant's discharge.
Water Body-specific Information	The Information cited in the "Deadly Power" report relates directly to south San Diego Bay waters.
Data used to assess water quality	Available information in citizen-supplied reports is for the most part non-numeric. The report contains general descriptions of the potential impact of the power plant discharge, temperature effects, loss of wetlands, impacts on entrained and impinged organisms, possible impacts on sea turtles and halibut, the use of chlorine and the possible impacts, the loading of copper and zinc, and possible impacts on increased turbidity on eelgrass beds. Further study is required to verify conclusions reached.
Spatial representation	The water body area of concern is adequately covered by the information provided.
Temporal representation	Studies from the 1960s through 2000 are discussed. No dates of sample collection is provided.
Data type	Narrative information is cited.
Use of standard method	For the most part no information is report on the methods used.
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	The South Bay Power Plant facility is subject to an NPDES permit. Prompted by citizen complaints, Duke Power, manager of the South Bay Power Plant, is considering bolstering its monitoring program. For example: - Modifications to sampling locations to eliminate compensation for selected pollutants. - Monitoring for dissolved oxygen and metals (copper, zinc, nickel, etc.). - Total chlorine residual monitoring on a daily level, perhaps at the time of day when the plant is operating at highest capacity. - An increase in the number of monitoring stations (from 11).

	Changes to the monitoring program are scheduled to begin in the summer of 2003. Quarterly progress reports will start May of 2003. The final reports are due in February 2004.
RWQCB Recommendation	RWQCB staff recommends placing South Bay on the watch list.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the Monitoring List because the volume of supporting data are inadequate to determine if applicable water quality standards are truly exceeded. Further study, including monitoring, is necessary to confirm the possibility of impacts to beneficial uses caused by discharges from the South Bay Power Plant.

Region 9: San Diego Bay Shoreline, at South Bay Power Plant (was San + Chlorine, Copper, Zinc

Water Body	San Diego Bay Shoreline, at South Bay Power Plant (was San Diego Bay at South Bay Power Plant)
Stressor/Media/Beneficial Use	Chlorine/Water/IND, NAV, REC-1, REC-2, COMM, BIOL, EST, WILD, RARE, MAR, MIGR, SHELL
Data quality assessment. Extent to which data quality requirements met.	A report submitted by concerned citizens, "Deadly Power," sites NPDES monitoring data, personal and agency communications, SWRCB and RWQCB orders, refereed journal articles, agency reports, and contractual studies. However, most information is non-numeric and the level of quality control/assurance is unknown.
Linkage between measurement endpoint and benefical use or standard	The information cited in the "Deadly Power" report directly relates to aquatic beneficial uses of the south San Diego Bay. Most of the reported information is difficult to relate to existing water quality objectives.
Utility of measure for judging if standards or uses are not attained	Numeric and narrative Basin Plan water quality objectives apply to these San Diego Bay waters.
Water Body-specific Information	The Information cited in the "Deadly Power" report relates to south San Diego Bay waters. Many of the studies cited are from the scientific literature describe the general impacts of metals, electric generating facility discharge, etc.
Data used to assess water quality	Available information in citizen-supplied reports is for the most part non-numeric. The report contains general descriptions of the potential impact of the power plant discharge, temperature effects, loss of wetlands, impacts on entrained and impinged organisms, possible impacts on sea turtles and halibut, the use of chlorine and the possible impacts, the loading of copper and zinc, and possible impacts on increased turbidity on eelgrass beds. Further study is required to verify conclusions reached.
Spatial representation	The water body area of concern is adequately covered by the information provided. No station or sampling data is provided.
Temporal representation	Studies from the 1960s through 2000 are discussed. No dates of sample collection is provided.
Data type	Narrative information is cited.
Use of standard method	For the most part no information is available on the methods used.
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	The South Bay Power Plant facility is subject to an NPDES permit. Prompted by citizen complaints, Duke Power, manager of the South Bay Power Plant, is considering bolstering its monitoring program. For example: - Modifications to sampling locations to eliminate compensation for selected pollutants. - Monitoring for dissolved oxygen and metals (copper, zinc, nickel, etc.).

	- Total chlorine residual monitoring on a daily level, perhaps at the time of day when the plant is operating at highest capacity. - An increase in the number of monitoring stations (from 11). Changes to the monitoring program are scheduled to begin in the summer of 2003. Quarterly progress reports will start May of 2003. The final reports are due in February 2004.
RWQCB Recommendation	RWQCB staff recommends placing South Bay on the Monitoring ("watch") List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the Monitoring List because the volume of supporting data are inadequate to determine if applicable water quality standards are truly exceeded. Further study, including monitoring, is necessary to confirm the possibility of impacts to beneficial uses caused by discharges from the South Bay Power Plant.

Region 9: San Diego Bay Shoreline, between Sampson and 28th Streets Copper

Water Body	San Diego Bay Shoreline, between Sampson and 28th Streets
Stressor/Media/Beneficial Use	Copper/Sediment/MAR, WILD, BIOL, EST, RARE, MIGR, SHELL
Data quality assessment. Extent to which data quality requirements met.	High quality for sediment data (See BPTCP report and NASSCO/SWM Technical Memorandum 1.
Linkage between measurement endpoint and benefical use or standard	Degraded benthic community and toxicity may be associated to pollutant concentration (no toxics in toxic amounts).
Utility of measure for judging if standards or uses are not attained	Use of the "Triad Approach" (i.e., sediment chemistry, toxicity, and benthic community) is a well-established weight of evidence approach that provides an integrated assessment of the sediment.
Water Body-specific Information	BPTCP regional monitoring program conducted by SWRCB (1992-1994). Sediment quality investigation conducted by NASSCO and SWM shipyards (August 2001).
Data used to assess water quality	- BPTCP Sediment Chemistry: Station >4x ERM or >5.9x PEL = 93211. Stations > 0.85 ERMq or >1.29 PELq = 93210, 93211, 90030, and 93181. Copper is one of several contaminants used to calculate the quotient values. - NASSCO/SWM Sediment Chemistry: Stations >4x ERM or > 5.9x PEL = NA17, SW01, SW02, SW04, SW08, SW09, and SW13. - BPTCP Toxicity: Stations < 48% amphipod survival rate = 93210, 93181, and 90030. Stations that exhibited toxicity to the sea urchin = 93210, and 93211. - BPTCP Benthic Community Structure: Stations with a degraded benthic community = 93210, 93211, and 90021. - BPTCP Station 93210 had synoptic "hits" on all three components of the Triad Approach. - BPTCP Stations 93211 and 90030 had synoptic "hits" on two of three components of the Triad Approach.
Spatial representation	Spatial representation provides adequate coverage of the area of concern. BPTCP sampled 9 stations within the area of concern. NASSCO/SWM study sampled 35 stations within the area of concern.
Temporal representation	2 sampling periods (1993 by BPTCP and 2001 by NASSCO/SWM).
Data type	Numerical sediment chemistry, toxicity, and benthic community data.
Use of standard method	Standard Methods were used for data analysis.
Potential Source(s) of Pollutant	Point and non-point sources.

Region 9: San Diego Bay Shoreline, between Sampson and 28th Streets
Copper

Alternative Enforceable Program	NPDES program.
RWQCB Recommendation	List. The weight of evidence from the samples collected from the area of concern indicates that the benthic community is being adversely affected in San Diego Bay between Sampson and 28th Streets. This level of benthic degradation, sediment toxicity, and sediment chemistry is direct evidence of impairment of the following beneficial uses: BIOL, EST, WILD, RARE, MAR, MIGR, and SHELL.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered. An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 9: San Diego Bay Shoreline, between Sampson and 28th Streets Mercury

Water Body	San Diego Bay Shoreline, between Sampson and 28th Streets
Stressor/Media/Beneficial Use	Mercury/Sediment/MAR, WILD, BIOL, EST, RARE, MIGR, SHELL
Data quality assessment. Extent to which data quality requirements met.	High quality for sediment data (See BPTCP report and NASSCO/SWM Technical Memorandum 1.
Linkage between measurement endpoint and benefical use or standard	Degraded benthic community and toxicity may be associated to pollutant concentration (no toxics in toxic amounts).
Utility of measure for judging if standards or uses are not attained	Use of the "Triad Approach" (i.e., sediment chemistry, toxicity, and benthic community) is a well-established weight of evidence approach that provides an integrated assessment of the sediment.
Water Body-specific Information	BPTCP regional monitoring program conducted by SWRCB (1992-1994). Sediment quality investigation conducted by NASSCO and SWM shipyards (August 2001).
Data used to assess water quality	- BPTCP Sediment Chemistry: Station >4x ERM or >5.9x PEL = None. Stations > 0.85 ERMq or >1.29 PELq = 93210, 93211, 90030, and 93181. Mercury is one of several contaminants used to calculate the quotient values. - NASSCO/SWM Sediment Chemistry: Stations >4x ERM or > 5.9x PEL = NA06 and SW02. - BPTCP Toxicity: Stations < 48% amphipod survival rate = 93210, 93181, and 90030. Stations that exhibited toxicity to the sea urchin = 93210, and 93211. - BPTCP Benthic Community Structure: Stations with a degraded benthic community = 93210, 93211, and 90021. - BPTCP Station 93210 had synoptic "hits" on all three components of the Triad Approach. - BPTCP Stations 93211 and 90030 had synoptic "hits" on two of three components of the Triad Approach.
Spatial representation	Spatial representation provides adequate coverage of the area of concern. BPTCP sampled 9 stations within the area of concern. NASSCO/SWM study sampled 35 stations within the area of concern.
Temporal representation	2 sampling periods (1993 by BPTCP and 2001 by NASSCO/SWM).
Data type	Numerical sediment chemistry, toxicity, and benthic community data.
Use of standard method	Standard methods were used for data analysis.
Potential Source(s) of Pollutant	Point and non-point sources.

Region 9: San Diego Bay Shoreline, between Sampson and 28th Streets
Mercury

Alternative Enforceable Program	NPDES program.
RWQCB Recommendation	List. The weight of evidence from the samples collected from the area of concern indicates that the benthic community is being adversely affected in San Diego Bay between Sampson and 28th Streets. This level of benthic degradation, sediment toxicity, and sediment chemistry is direct evidence of impairment of the following beneficial uses: BIOL, EST, WILD, RARE, MAR, MIGR, and SHELL.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered. An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 9: San Diego Bay Shoreline, between Sampson and 28th Streets
Total PAHs

Water Body	San Diego Bay Shoreline, between Sampson and 28th Streets
Stressor/Media/Beneficial Use	Total PAHs/Sediment/MAR, WILD, BIOL, EST, RARE, MIGR, and SHELL
Data quality assessment. Extent to which data quality requirements met.	High quality for sediment data (See BPTCP report and NASSCO/SWM Technical Memorandum 1.
Linkage between measurement endpoint and benefical use or standard	Degraded benthic community and toxicity may be associated to pollutant concentration (no toxics in toxic amounts).
Utility of measure for judging if standards or uses are not attained	Use of the "Triad Approach" (i.e., sediment chemistry, toxicity, and benthic community) is a well-established weight of evidence approach that provides an integrated assessment of the sediment.
Water Body-specific Information	BPTCP regional monitoring program conducted by SWRCB (1992-1994). Sediment quality investigation conducted by NASSCO and SWM shipyards (August 2001).
Data used to assess water quality	- BPTCP Sediment Chemistry: Station >4x ERM or >5.9x PEL = 90030. Stations > 0.85 ERMq or >1.29 PELq = 93210, 93211, 90030, and 93181. Total PAHs is one of several contaminants used to calculate the quotient values. - NASSCO/SWM Sediment Chemistry: Stations >4x ERM or > 5.9x PEL = None. - BPTCP Toxicity: Stations < 48% amphipod survival rate = 93210, 93181, and 90030. Stations that exhibited toxicity to the sea urchin = 93210, and 93211. - BPTCP Benthic Community Structure: Stations with a degraded benthic community = 93210, 93211, and 90021. - BPTCP Station 93210 had synoptic "hits" on all three components of the Triad Approach. - BPTCP Stations 93211 and 90030 had synoptic "hits" on two of three components of the Triad Approach.
Spatial representation	Spatial representation provides adequate coverage of the area of concern. BPTCP sampled 9 stations within the area of concern. NASSCO/SWM study sampled 35 stations within the area of concern.
Temporal representation	2 sampling periods (1993 by BPTCP and 2001 by NASSCO/SWM).
Data type	Numerical sediment chemistry, toxicity, and benthic community data.
Use of standard method	Standard methods were used for data analysis.

Region 9: San Diego Bay Shoreline, between Sampson and 28th Streets
Total PAHs

Potential Source(s) of Pollutant	Point and non-point.
Alternative Enforceable Program	NPDES program.
RWQCB Recommendation	List. The weight of evidence from the samples collected from the area of concern indicates that the benthic community is being adversely affected in San Diego Bay between Sampson and 28th Streets. This level of benthic degradation, sediment toxicity, and sediment chemistry is direct evidence of impairment of the following beneficial uses: BIOL, EST, WILD, RARE, MAR, MIGR, and SHELL.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered. An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 9: San Diego Bay Shoreline, between Sampson and 28th Streets
Zinc

Water Body	San Diego Bay Shoreline, between Sampson and 28th Streets
Stressor/Media/Beneficial Use	Zinc/Sediment/MAR, WILD, BIOL, EST, RARE, MIGR, and SHELL
Data quality assessment. Extent to which data quality requirements met.	High quality for sediment data (See BPTCP report and NASSCO/SWM Technical Memorandum 1.
Linkage between measurement endpoint and benefical use or standard	Degraded benthic community and toxicity may be associated to pollutant concentration (no toxics in toxic amounts).
Utility of measure for judging if standards or uses are not attained	Use of the "Triad Approach" (i.e., sediment chemistry, toxicity, and benthic community) is a well-established weight of evidence approach that provides an integrated assessment of the sediment.
Water Body-specific Information	BPTCP regional monitoring program conducted by SWRCB (1992-1994). Sediment quality investigation conducted by NASSCO and SWM shipyards (August 2001).
Data used to assess water quality	- BPTCP Sediment Chemistry: Station >4x ERM or >5.9x PEL = None. Stations > 0.85 ERMq or >1.29 PELq = 93210, 93211, 90030, and 93181. Zinc is one of several contaminants used to calculate the quotient values. - NASSCO/SWM Sediment Chemistry: Stations >4x ERM or > 5.9x PEL = SW04. - BPTCP Toxicity: Stations < 48% amphipod survival rate = 93210, 93181, and 90030. Stations that exhibited toxicity to the sea urchin = 93210, and 93211. - BPTCP Benthic Community Structure: Stations with a degraded benthic community = 93210, 93211, and 90021. - BPTCP Station 93210 had synoptic "hits" on all three components of the Triad Approach. - BPTCP Stations 93211 and 90030 had synoptic "hits" on two of three components of the Triad Approach.
Spatial representation	Spatial representation provides adequate coverage of the area of concern. BPTCP sampled 9 stations within the area of concern. NASSCO/SWM study sampled 35 stations within the area of concern.
Temporal representation	2 sampling periods (1993 by BPTCP and 2001 by NASSCO/SWM).
Data type	Numerical sediment chemistry, toxicity, and benthic community data.
Use of standard method	Standard methods were used for data analysis.
Potential Source(s) of Pollutant	Point and non-point sources.

Region 9: San Diego Bay Shoreline, between Sampson and 28th Streets
Zinc

Alternative Enforceable Program	NPDES program.
RWQCB Recommendation	List. The weight of evidence from the samples collected from the area of concern indicates that the benthic community is being adversely affected in San Diego Bay between Sampson and 28th Streets. This level of benthic degradation, sediment toxicity, and sediment chemistry is direct evidence of impairment of the following beneficial uses: BIOL, EST, WILD, RARE, MAR, MIGR, and SHELL.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the effects of age of the data were considered. An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 9: San Diego Bay Shoreline, between Sampson and 28th Streets
Total PCBs

Water Body	San Diego Bay Shoreline, between Sampson and 28th Streets
Stressor/Media/Beneficial Use	Total PCBs/Sediment/MAR, WILD, BIOL, EST, RARE, MIGR, and SHELL
Data quality assessment. Extent to which data quality requirements met.	High quality for sediment data (See BPTCP report and NASSCO/SWM Technical Memorandum 1.
Linkage between measurement endpoint and benefical use or standard	Degraded benthic community and toxicity may be associated to pollutant concentration (no toxics in toxic amounts).
Utility of measure for judging if standards or uses are not attained	Use of the "Triad Approach" (i.e., sediment chemistry, toxicity, and benthic community) is a well-established weight of evidence approach that provides an integrated assessment of the sediment.
Water Body-specific Information	BPTCP regional monitoring program conducted by SWRCB (1992-1994). Sediment quality investigation conducted by NASSCO and SWM shipyards (August 2001).
Data used to assess water quality	- BPTCP Sediment Chemistry: Station >4x ERM or >5.9x PEL = 93211. Stations > 0.85 ERMq or >1.29 PELq = 93210, 93211, 90030, and 93181. Total PCBs is one of several contaminants used to calculate the quotient values. - NASSCO/SWM Sediment Chemistry: Stations >4x ERM or > 5.9x PEL = SW01, SW02, SW04, SW05, SW08, SW20, SW21, and SW28. - BPTCP Toxicity: Stations < 48% amphipod survival rate = 93210, 93181, and 90030. Stations that exhibited toxicity to the sea urchin = 93210, and 93211. - BPTCP Benthic Community Structure: Stations with a degraded benthic community = 93210, 93211, and 90021. - BPTCP Station 93210 had synoptic "hits" on all three components of the Triad Approach. - BPTCP Stations 93211 and 90030 had synoptic "hits" on two of three components of the Triad Approach.
Spatial representation	Spatial representation provides adequate coverage of the area of concern. BPTCP sampled 9 stations within the area of concern. NASSCO/SWM study sampled 35 stations within the area of concern.
Temporal representation	2 sampling periods (1993 by BPTCP and 2001 by NASSCO/SWM).
Data type	Numerical sediment chemistry, toxicity, and benthic community data.
Use of standard method	Standard methods were used for data analysis.

Region 9: San Diego Bay Shoreline, between Sampson and 28th Streets
Total PCBs

Potential Source(s) of Pollutant	Point and non-point sources.
Alternative Enforceable Program	NPDES program.
RWQCB Recommendation	List. The weight of evidence from the samples collected from the area of concern indicates that the benthic community is being adversely affected in San Diego Bay between Sampson and 28th Streets. This level of benthic degradation, sediment toxicity, and sediment chemistry is direct evidence of impairment of the following beneficial uses: BIOL, EST, WILD, RARE, MAR, MIGR, and SHELL.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the age of the data were considered. An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 9: San Diego Bay Shoreline, Chula Vista Marina (was San Diego + Bacterial Indicators (was "high coliform count")

Water Body	San Diego Bay Shoreline, Chula Vista Marina (was San Diego Bay Shoreline, Telegraph HSA 909.11)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")/MAR, WILD, BIOL, EST, RARE, MIGR, and SHELL
Data quality assessment. Extent to which data quality requirements met.	NA
Linkage between measurement endpoint and benefical use or standard	NA
Utility of measure for judging if standards or uses are not attained	NA
Water Body-specific Information	NA
Data used to assess water quality	NA
Spatial representation	NA
Temporal representation	NA
Data type	NA
Use of standard method	NA
Potential Source(s) of Pollutant	NA
Alternative Enforceable Program	NA
RWQCB Recommendation	A. Revise name. B. Change "high coliform count: to "bacterial indicators."
SWRCB Staff Recommendation	Per RWQCB recommendation, (A) revise name, and (B) change pollutant to "bacterial indicators." This is not a new listing.

Region 9: San Diego Bay Shoreline, Downtown Anchorage (was San Diego + Benthic Community Effects, Sediment Toxicity

Water Body	San Diego Bay Shoreline, Downtown Anchorage (was San Diego Bay, Downtown Anchorage [was "San Diego Bay, near grape Street"])
Stressor/Media/Beneficial Use	Benthic Community Effects, Sediment Toxicity/sediment/MAR, WILD, BIOL, EST, RARE, MIGR, and SHELL
Data quality assessment. Extent to which data quality requirements met.	N/A
Linkage between measurement endpoint and benefical use or standard	N/A
Utility of measure for judging if standards or uses are not attained	N/A
Water Body-specific Information	N/A
Data used to assess water quality	N/A
Spatial representation	N/A
Temporal representation	N/A
Data type	N/A
Use of standard method	N/A
Potential Source(s) of Pollutant	N/A
Alternative Enforceable Program	N/A
RWQCB Recommendation	Existing listing (from 1998 303(d) List). (Was included within "San Diego Bay" listing (HU 900.00). RWQCB staff request for name change is made to provide a more accurate descriptive name, avoid confusion, and to name the segment consistent with the name used in previous reports. This segment is referred to in a SWRCB et. al report as "Downtown Anchorage." The segment is not near Grape Street and the descriptive name "Grape Street" is being applied to a different site in the SWRCB report.
SWRCB Staff Recommendation	Change name from "San Diego Bay, near Grape Street" to "San Diego Bay Shoreline, Downtown Anchorage."

Region 9: San Diego Bay Shoreline, G Street Pier (was, in part, San D + Bacterial Indicators (was "high coliform count")

Water Body	San Diego Bay Shoreline, G Street Pier (was, in part, San Diego Bay Shoreline, Lindbergh HSA 908.21.)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")/MAR, WILD, BIOL, EST, RARE, MIGR, and SHELL
Data quality assessment. Extent to which data quality requirements met.	NA
Linkage between measurement endpoint and benefical use or standard	NA
Utility of measure for judging if standards or uses are not attained	NA
Water Body-specific Information	NA
Data used to assess water quality	NA
Spatial representation	NA
Temporal representation	NA
Data type	NA
Use of standard method	NA
Potential Source(s) of Pollutant	NA
Alternative Enforceable Program	NA
RWQCB Recommendation	A. Revise 1998 list to more correctly identify specific water body segments affected by pollution. Split up the "San Diego Bay Shoreline, Lindbergh HSA 908.21" water body, which is not entirely polluted, into specific segments, which are polluted. B. All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	A. The original 1998 listing was titled "San Diego Bay, Lindbergh HSA 908.21." However, not all of that water body is impacted by pollution. For 2002, the RWQCB recommended that 1998 titles be refined to identify those water body segments specifically affected by pollution. For example, the Lindbergh HSA includes the "San Diego Bay Shoreline, G Street Pier" area. (Other segments, such as "San Diego Bay Shoreline, vicinity of B Street and Broadway Piers," have been identified separately.) This is not a new listing. The original pollution-impacted segments, that were included within the Lindbergh listing, remain on the list, albeit with new, more specific titles.

Region 9: San Diego Bay Shoreline, G Street Pier (was, in part, San D + Bacterial Indicators (was "high coliform count")

B. Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: San Diego Bay Shoreline, near Chollas Creek (was San Diego + Benthic Community Effects, Sediment Toxicity

Water Body	San Diego Bay Shoreline, near Chollas Creek (was San Diego Bay, near Chollas Creek)
Stressor/Media/Beneficial Use	Benthic Community Effects, Sediment Toxicity/MAR, WILD, BIOL, EST, RARE, MIGR, and SHELL
Data quality assessment. Extent to which data quality requirements met.	NA
Linkage between measurement endpoint and benefical use or standard	NA
Utility of measure for judging if standards or uses are not attained	NA
Water Body-specific Information	NA
Data used to assess water quality	NA
Spatial representation	NA
Temporal representation	NA
Data type	NA
Use of standard method	NA
Potential Source(s) of Pollutant	NA
Alternative Enforceable Program	NA
RWQCB Recommendation	Revise name of previous, 1998, listing: San Diego Bay, near Chollas Creek.
SWRCB Staff Recommendation	Per RWQCB recommendation, revise name of existing, 1998, listing. This is not a new listing (but does identify specific location within larger, general 1998 listing for all of San Diego Bay).

Region 9: San Diego Bay Shoreline, near Coronado Bridge (was San Dieg + Benthic Community Effects, Sediment Toxicity

Water Body	San Diego Bay Shoreline, near Coronado Bridge (was San Diego Bay, near Coronado Bridge)
Stressor/Media/Beneficial Use	Benthic Community Effects, Sediment Toxicity/MAR, WILD, BIOL, EST, RARE, MIGR, and SHELL
Data quality assessment. Extent to which data quality requirements met.	NA
Linkage between measurement endpoint and benefical use or standard	NA
Utility of measure for judging if standards or uses are not attained	NA
Water Body-specific Information	NA
Data used to assess water quality	NA
Spatial representation	NA
Temporal representation	NA
Data type	NA
Use of standard method	NA
Potential Source(s) of Pollutant	NA
Alternative Enforceable Program	NA
RWQCB Recommendation	Revise name of previous, 1998, listing: San Diego Bay, near Coronado Bridge.
SWRCB Staff Recommendation	Per RWQCB recommendation, revise name of existing, 1998, listing. This is not a new listing (but does identify specific location within larger, general 1998 listing for all of San Diego Bay).

Region 9: San Diego Bay Shoreline, near Crosby Street (Cesar Chavez) + Sediment Toxicity

Water Body	San Diego Bay Shoreline, near Crosby Street (Cesar Chavez) Park (will become part of the "San Diego Bay Shoreline, near Coronado Bridge" listing)
Stressor/Media/Beneficial Use	Sediment Toxicity
Data quality assessment. Extent to which data quality requirements met.	BPTCP methodology (for some data).
Linkage between measurement endpoint and benefical use or standard	The 1998 Section 303(d) Listing Criteria developed by the RWQCB for BPTCP data in San Diego Bay required both elevated chemical levels and evidence of a degraded benthic community. Elevated sediment chemistry had to be higher than the Effects Range Median (ERM) Summary Quotient, the Probable Effects Limit (PEL) Summary Quotient, or individual chemistry elevated to 4xERM or 5.9xPEL.
Utility of measure for judging if standards or uses are not attained	RWQCB water quality objective (toxicity).
Water Body-specific Information	While data are not available at this specific location, concern has been raised that the Crosby Street location is impacted like nearby locations. It is likely that impacts at this location will be better assessed in the development of the TMDL.
Data used to assess water quality	Samples from site 93177 did contain a chemical constituent above the criteria as developed in 1998: low Molecular Weight (MW) Polyaromatic Hydrocarbons (PAHs) concentrations were greater than the "5.9xPEL" criteria. However, the site 93177 was given low priority by the BPTCP Study and did not receive analysis of its benthic community. Therefore, it does not qualify for inclusion on the Section 303(d) list based on the criteria developed in 1998 by the RWQCB. Two new sources of information were provided: a sediment data collected in 1988, and written testimonials on the value and condition of this area of the Bay. Nine sediment cores were taken and two were analyzed for bioaccumulative metals and chemicals in 1988. None of the results would qualify this site for the Section 303(d) list under the criteria as developed by the RWQCB for the 1998 listing. Sixty-nine community members sent in support for listing San Diego Bay near Crosby Street Park. The commenters want clean water for fishing and swimming, believe (sediments under) the area to be contaminated, and report a foul odor. However, no data is presented and these comments must be considered as unsubstantiated opinion.
Spatial representation	Two sites from the BPTCP Study (90018 and 93177) are adjacent to Crosby Park, but only site 93177 had analysis of sediment chemistry performed.
Temporal representation	Unknown.
Data type	Numeric data and narrative information.

Region 9: San Diego Bay Shoreline, near Crosby Street (Cesar Chavez) + Sediment Toxicity

Use of standard method	BPTCP procedures used (for some data). Unknown for Woodward-Clyde samples, but SWRCB staff assume that standard procedures were used.
Potential Source(s) of Pollutant	Sediment-containing pollutants probably originated with prior industrial and maritime activities along the shoreline, and from nearby urban discharges.
Alternative Enforceable Program	None.
RWQCB Recommendation	Watch List. Bay Protection and Toxic Cleanup Program data for this site does not meet the RWQCB's specific 1998 criteria for listing contaminated sediment bay sites. Although close, the sample data failed to trigger the need for a benthic community analysis. Elevated chemical levels and a degraded benthic community are both needed in order to list. Several other bay sites were also "close" and not listed. These criteria has been rigidly and consistently applied in the past. New data (submitted during the extended acceptance period in 2002 also does not meet the RWQCB's 1998 criteria. Although there are high public interest, extensive recreational use, and environmental justice concerns, RWQCB staff feels that there is not adequate data to support 303(d) listing of this site. RWQCB staff recommends placing this site on the watch list.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be included within an already (1998) listed water body on the section 303(d) list because the evidence suggests that water quality standards are not being achieved and protected at the site. This conclusion is based on the staff findings that: 1. Beneficial uses have been established for and apply to the water body. 2. Water quality standard used is applicable. 3. Other water body- or site-specific information including the effects of season, and age of the data were considered. The beneficial uses at the site exist and are of such importance as to justify including this water body within the area covered by the San Diego Bay Shoreline, Coronado Bridge listing. The confidence SWRCB staff have that beneficial uses at the site are being harmed is moderate.

Region 9: San Diego Bay Shoreline, near Sub Base (was San Diego Bay, + Benthic Community Effects, Sediment Toxicity

Water Body	San Diego Bay Shoreline, near Sub Base (was San Diego Bay, near Sub Base)
Stressor/Media/Beneficial Use	Benthic Community Effects, Sediment Toxicity/MAR, WILD, BIOL, EST, RARE, MIGR, and SHELL
Data quality assessment. Extent to which data quality requirements met.	NA
Linkage between measurement endpoint and benefical use or standard	NA
Utility of measure for judging if standards or uses are not attained	NA
Water Body-specific Information	NA
Data used to assess water quality	NA
Spatial representation	NA
Temporal representation	NA
Data type	NA
Use of standard method	NA
Potential Source(s) of Pollutant	NA
Alternative Enforceable Program	NA
RWQCB Recommendation	Revise name of previous, 1998, listing: San Diego Bay, near Sub Base.
SWRCB Staff Recommendation	Per RWQCB recommendation, revise name of existing 1998 listing. This is not a new listing (but does identify specific location within larger, general 1998 listing for all of San Diego Bay).

Region 9: San Diego Bay Shoreline, near Switzer Creek (was San Diego + Chlordane, Lindane, PAHs

Water Body	San Diego Bay Shoreline, near Switzer Creek (was San Diego Bay at Mouth of Switzer Creek)
Stressor/Media/Beneficial Use	Chlordane, Lindane, PAHs/sediment/BIOL, EST, WILD, RARE, MAR, MIGR, SHELL
Data quality assessment. Extent to which data quality requirements met.	The Bay Protection and Toxic Cleanup Program (BPTCP) employed appropriate quality control/quality assurance procedures. Department of Fish and Game staff and analytical laboratories performed sampling and analyses. Quality control was tested using National Research Council of Canada Marine Sediment Reference Materials at the start and end of each sample analysis set. Quality assurance was monitored be re-calibration of analytical instruments every 20 samples and by analyses of (unknown) standards. Solid-phase and sediment-water interface toxicity was assessed using USEPA 1994 sediment toxicity test guidelines. Negative and positive control testing was employed.
Linkage between measurement endpoint and benefical use or standard	Pollutants have a direct impact on aquatic life beneficial uses.
Utility of measure for judging if standards or uses are not attained	Sediment chemistry sample results were compared against appropriate Probable Effects Levels and Threshold Effects Levels. Toxicity tests used narrative Basin Plan objective.
Water Body-specific Information	Data came specifically from San Diego Bay directly at the Mouth of Switzer Creek. Data age = 6 years.
Data used to assess water quality	High levels of high molecular weight PAHs (6676-56,500 ppb), low molecular weight PAHs (1442-27,200 ppb), total PCBs (21-188 ppb), and total chlordane (5-160 ppb) were found in sampled sediment. Toxicity tests found less than 48% survival of amphipods. A relative benthic community test index calculated for the site indicated a "degraded" condition.
Spatial representation	BPTCP sampling occurred at specific sites. The Mouth of Switzer Creek was sampled so as to be fully representative of the local area (at the mouth of the Creek as it emptied into San Diego Bay).
Temporal representation	BPTCP sediment data was collected a limited number of times. However, results were not expected to vary greatly over a season.
Data type	Numeric data used.
Use of standard method	Standard BPTCP methods used.
Potential Source(s) of Pollutant	Elevated concentrations of chlordane, lindane, DDT, polynuclear aromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs), current/historic shipyard activity, historic PAH and garbage dumping, urban runoff, other point sources, and nonpoint sources.

Region 9: San Diego Bay Shoreline, near Switzer Creek (was San Diego + Chlordane, Lindane, PAHs

Alternative Enforceable Program	No alternate program is available at this time. Standard RWQCB procedure when developing a TMDL is to first perform a TIE (investigation for cause/source of toxicity) to accurately confirm the source and extent of the toxicity at a site.
RWQCB Recommendation	List separately for "toxicity" and "degraded benthos."
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. The evaluation guideline used to interpret narrative water quality standards is adequate. 6. Data are numerical. 7. Standard methods were used. 8. Other water body- or site-specific information including the effects of age of the data were considered. An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 9: San Diego Bay Shoreline, near Switzer Creek (was San Diego + Toxicity

Water Body	San Diego Bay Shoreline, near Switzer Creek (was San Diego Bay at Mouth of Switzer Creek)
Stressor/Media/Beneficial Use	Toxicity/sediment/BIOL, EST, WILD, RARE, MAR, MIGR, SHELL
Data quality assessment. Extent to which data quality requirements met.	BPTCP; 1998 Addendum.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	Toxicity tests used narrative Basin Plan objective.
Water Body-specific Information	Data age = 5 years.
Data used to assess water quality	<48% amphipod survival.
Spatial representation	1 sample, 5 replicates; sampled at outlet of the Creek.
Temporal representation	Unknown.
Data type	Numerical data.
Use of standard method	BPTCP methods used
Potential Source(s) of Pollutant	Elevated concentrations of chlordane, lindane, polynuclear aromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs), current/historic shipyard activity, historic PAH and garbage dumping, urban runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	This water body/pollutant combination is now listed under "San Diego Bay Shoreline, near Switzer Creek" for "Chlordane, Lindane, PAHs, and Other Unknown Pollutants Causing Sediment Toxicity and Degraded Benthic Conditions."

Region 9: San Diego Bay Shoreline, near Switzer Creek (was San Diego + Degraded Benthos

Water Body	San Diego Bay Shoreline, near Switzer Creek (was San Diego Bay at Mouth of Switzer Creek)
Stressor/Media/Beneficial Use	Degraded Benthos/Sediment/BIOL, EST, WILD, RARE, MAR, MIGR, SHELL
Data quality assessment. Extent to which data quality requirements met.	BPTCP; 1998 Addendum.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	Narrative Basin Plan objective used. Indicator organisms, species diversity, population density, growth anomalies, bioassays, and other information used.
Water Body-specific Information	Data age = 5 years.
Data used to assess water quality	RBI = 0.02 (75 samples); Chemical concentrations >4 times the ERM and 5.9 times the PEL
Spatial representation	1 Core, sampled 3 times compared against 75 cores from all of SD Bay; sampled at outlet of the Creek.
Temporal representation	Unknown.
Data type	Numerical data.
Use of standard method	BPTCP methods used.
Potential Source(s) of Pollutant	Elevated concentrations of chlordane, lindane, polynuclear aromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs), current/historic shipyard activity, historic PAH and garbage dumping, urban runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	This water body/pollutant combination is now listed under "San Diego Bay Shoreline, near Switzer Creek" for "Chlordane, Lindane, PAHs, and Other Unknown Pollutants Causing Sediment Toxicity and Degraded Benthic Conditions."

Region 9: San Diego Bay Shoreline, near Switzer Creek (was San Diego + Lindane

Water Body	San Diego Bay Shoreline, near Switzer Creek (was San Diego Bay at Mouth of Switzer Creek)
Stressor/Media/Beneficial Use	Lindane
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Remove entire listing from Watch List. Switzer Creek constituents will be investigated further as part of the "San Diego Bay, Mouth of Switzer Creek" TMDL development.
SWRCB Staff Recommendation	This water body/pollutant combination is now listed under "San Diego Bay Shoreline, near Switzer Creek" for "Chlordane, Lindane, PAHs, and Other Unknown Pollutants Causing Sediment Toxicity and Degraded Benthic Conditions."

Region 9: San Diego Bay Shoreline, near Switzer Creek (was San Diego + PAH

Water Body	San Diego Bay Shoreline, near Switzer Creek (was San Diego Bay at Mouth of Switzer Creek)
Stressor/Media/Beneficial Use	PAH
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Remove entire listing from Watch List. Switzer Creek constituents will be investigated further as part of the "San Diego Bay, Mouth of Switzer Creek" TMDL development.
SWRCB Staff Recommendation	This water body/pollutant combination is now listed under "San Diego Bay Shoreline, near Switzer Creek" for "Chlordane, Lindane, PAHs, and Other Unknown Pollutants Causing Sediment Toxicity and Degraded Benthic Conditions."

Region 9: San Diego Bay Shoreline, near Switzer Creek (was San Diego + Chlordane

Water Body	San Diego Bay Shoreline, near Switzer Creek (was San Diego Bay at Mouth of Switzer Creek)
Stressor/Media/Beneficial Use	Chlordane
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Remove entire listing from Watch List. Switzer Creek constituents will be investigated further as part of the "San Diego Bay, Mouth of Switzer Creek" TMDL development.
SWRCB Staff Recommendation	This water body/pollutant combination is now listed under "San Diego Bay Shoreline, near Switzer Creek" for "Chlordane, Lindane, PAHs, and Other Unknown Pollutants Causing Sediment Toxicity and Degraded Benthic Conditions."

Region 9: San Diego Bay Shoreline, north of 24th Street Marine Termin + Benthic Community Effects, Sediment Toxicity

Water Body	San Diego Bay Shoreline, north of 24th Street Marine Terminal (was San Diego Bay, north of 24th Street Marine Terminal)
Stressor/Media/Beneficial Use	Benthic Community Effects, Sediment Toxicity/MAR, WILD, BIOL, EST, RARE, MIGR, and SHELL
Data quality assessment. Extent to which data quality requirements met.	NA
Linkage between measurement endpoint and benefical use or standard	NA
Utility of measure for judging if standards or uses are not attained	NA
Water Body-specific Information	NA
Data used to assess water quality	NA
Spatial representation	NA
Temporal representation	NA
Data type	NA
Use of standard method	NA
Potential Source(s) of Pollutant	NA
Alternative Enforceable Program	NA
RWQCB Recommendation	Revise name of previous, 1998, listing: San Diego Bay, north of 24th Street Marine Terminal.
SWRCB Staff Recommendation	Per RWQCB recommendation, revise name of existing 1998 listing. This is not a new listing (but does identify specific location within larger, general 1998 listing for all of San Diego Bay).

Region 9: San Diego Bay Shoreline, Seventh Street Channel (was San D + Benthic Community Effects, Sediment Toxicity

Water Body	San Diego Bay Shoreline, Seventh Street Channel (was San Diego Bay, Seventh Street Channel)
Stressor/Media/Beneficial Use	Benthic Community Effects, Sediment Toxicity
Data quality assessment. Extent to which data quality requirements met.	NA
Linkage between measurement endpoint and benefical use or standard	NA
Utility of measure for judging if standards or uses are not attained	NA
Water Body-specific Information	NA
Data used to assess water quality	NA
Spatial representation	NA
Temporal representation	NA
Data type	NA
Use of standard method	NA
Potential Source(s) of Pollutant	NA
Alternative Enforceable Program	NA
RWQCB Recommendation	Revise name of previous, 1998, listing: San Diego Bay, Seventh Street Channel
SWRCB Staff Recommendation	Per RWQCB recommendation, revise name of existing 1998 listing. This is not a new listing (but does identify specific location within larger, general 1998 listing for all of San Diego Bay).

Region 9: San Diego Bay Shoreline, Shelter Island Shoreline Park (Pue + Bacterial Indicators (was "high coliform count")

Water Body	San Diego Bay Shoreline, Shelter Island Shoreline Park (Pueblo San Diego 908.00 and Sweetwater)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")/Water/REC-1, REC-2
Data quality assessment. Extent to which data quality requirements met.	San Diego County Department of Environmental Health.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	Closures a measure of impacts on beneficial use. Listing recommendation: >10 days/year beach closures or advisories.
Water Body-specific Information	Data age = 1 year.
Data used to assess water quality	Analysis of applicable 1999 through 2002 data by the RWQCB staff showed 2 usable exceedence day out of 18 usable samples, 6 exceedences out of 34 samples, and 23 exceedences out of 72 samples, from dry-season and year-round samples (The "p" values used were 0.04 and 0.1.).
Spatial representation	Sampled within 400 yards (0.2 miles) of discharge point.
Temporal representation	1999-2002 data.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Sewage spills/leaks, urban runoff, other point sources, nonpoint sources, and domestic/wild animals.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	A. Add specific location (not new HA) to 1998 listing. B. Change "high coliform count: to "bacterial indicators."
SWRCB Staff Recommendation	A. After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be specifically recognized (and remain) on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. An adequate amount of the water quality measurements exceeded the water

quality standard. The staff confidence that standards were exceeded is high.

The hydrologic sub-area 908.10 (Point Loma HA) includes other San Diego Bay segments (i.e., Near Sub Base, at Shelter Island Yacht Basin) listed for other pollutants in 1998, and one segment (at Kellogg Street) recommended for not listing in 2002. Continuing to list San Diego Bay Shoreline, at Shelter Island Shoreline Park (Pueblo San Diego 908.00 and Sweetwater) is not intended to affect in any way other water body segments.

B. Change pollutant designation from "high coliform count: to "bacterial indicators."

Region 9: San Diego Bay Shoreline, Tidelands Park
Bacterial Indicators (was "high coliform count")

Water Body	San Diego Bay Shoreline, Tidelands Park
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")/Water/REC-1, REC-2
Data quality assessment. Extent to which data quality requirements met.	San Diego County Department of Environmental Health.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	Closures a measure of impacts on beneficial use. Listing recommendation: >10 days/year beach closures or advisories.
Water Body-specific Information	Data age = 1 year.
Data used to assess water quality	Analysis of applicable 1999 through 2002 data by the RWQCB staff showed 1 usable exceedence day out of 16 usable samples, 6 exceedences out of 33 samples, 7 exceedences out of 33 samples, and 2 exceedences out of 16 samples, all from dry seasons. (The "p" value used was 0.04.)
Spatial representation	Sampled within 400 yards (0.2 miles) of discharge point.
Temporal representation	1999-2002 data.
Data type	Numerical data
Use of standard method	
Potential Source(s) of Pollutant	Sewage spills/leaks, urban runoff, other point sources, nonpoint sources, and domestic/wild animals.
Alternative Enforceable Program	
RWQCB Recommendation	A. Add specific location (not new HA) to 1998 Listing B. Change "high coliform count: to "bacterial indicators"
SWRCB Staff Recommendation	A. After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be specifically recognized (and remain) on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the age of the data were considered. An adequate amount of the water quality measurements exceeded the water

quality standard. The staff confidence that standards were exceeded is high.

The hydrologic sub-area 910.10 (Coronado HA) was previously listed in 1998. However, the segment San Diego Bay Shoreline, at Tidelands Park (also HSA 910.10) was not specifically mentioned.

B. Change pollutant designation from "high coliform count: to "bacterial indicators."

Region 9: San Diego Bay Shoreline, Vicinity of B Street and Broadway + Benthic Community Effects, Sediment Toxicity (no change)

Water Body	San Diego Bay Shoreline, Vicinity of B Street and Broadway Piers (was San Diego Bay, Vicinity of B Street and Broadway Piers [was "San Diego Bay, Downtown Piers 10 acres"])
Stressor/Media/Beneficial Use	Benthic Community Effects, Sediment Toxicity (no change)/MAR, WILD, BIOL, EST, RARE, MIGR, and SHELL
Data quality assessment. Extent to which data quality requirements met.	NA
Linkage between measurement endpoint and benefical use or standard	NA
Utility of measure for judging if standards or uses are not attained	NA
Water Body-specific Information	NA
Data used to assess water quality	NA
Spatial representation	NA
Temporal representation	NA
Data type	NA
Use of standard method	NA
Potential Source(s) of Pollutant	NA
Alternative Enforceable Program	NA
RWQCB Recommendation	The 1998 "San Diego Bay, Downtown Piers" listing should be changed to "San Diego Bay, Vicinity of B Street and Broadway Piers." This change adds clarification to the location of impairment as evidenced by degraded benthic communities and sediment toxicity.
SWRCB Staff Recommendation	Change existing ('98) water body name from "San Diego Bay, Downtown Piers 10 acres" to "San Diego Bay, Vicinity of B Street and Broadway Piers."

Region 9: San Diego River (lower)
Fecal Coliform

Water Body	San Diego River (lower)
Stressor/Media/Beneficial Use	Fecal Coliform/Water/REC-1
Data quality assessment. Extent to which data quality requirements met.	Padre Dam Municipal Water District Receiving Water Sampling/analysis.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan): For single samples, the Basin Plan objective states that no more than 10% of the total samples during any 30-day period shall exceed 400 colonies/100 ml.
Water Body-specific Information	Data age = 1 year.
Data used to assess water quality	Sampling was done by the Padre Dam Municipal Wastewater District intermittently from November 1998 to September 2000. Data was taken once a month for October-March and twice a month for April-October. The data shows that 11 of 18 samples (61%) in both wet and dry weather had levels of fecal coliform in excess of 400 Most Probable Number (MPN)/ml.
Spatial representation	6 miles of River sampled.
Temporal representation	Sampling completed between November 1998 and September 2000.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Urban runoff, other point sources, nonpoint sources, and sewage.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of season, and age of the data were considered. An adequate number of the water quality measurements exceeded the water

quality standard. The staff confidence that standards were exceeded is high.

Region 9: San Diego River (lower)
Total Dissolved Solids

Water Body	San Diego River (lower)
Stressor/Media/Beneficial Use	Total Dissolved Solids/Water/AGR
Data quality assessment. Extent to which data quality requirements met.	Padre Dam Municipal Water District Receiving Water Sampling/analysis.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (1500 mg/L) used; This objective is not to be exceeded more than 10% of the time during any one-year period.
Water Body-specific Information	Data age = 4 years.
Data used to assess water quality	Sampling between September 1997 and December 2000 by the Padre Dam Municipal Water District shows three locations along the San Diego River to exceed the Basin Plan TDS objective for more than 10% of the time during a one-year period. From 1997 to 1998, 3 out of 16 samples and 2/5 samples exceeded the water quality objective (at two locations). From 1998 to 1999, 3/20, 11/20, and 10/19 samples (at 3 locations) exceeded the objective. And from 1999 to 2000, 9/21, 14/21, and 15/21 samples (at 3 locations) exceeded the basin plan objective. The total number of exceedences was 67 out of 153 samples (44%). All 3 locations show a seasonal and an increasing trend over the 3 years reviewed.
Spatial representation	Three sample sites (15 miles of River).
Temporal representation	September 1997 to December 2000.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Anthropogenic sources, imported water, evaporation, and natural salt sources. Also, urban runoff, agriculture runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body.

4. Water quality standard used is applicable.
5. Data are numerical.
6. Standard methods were used.
7. Other water body- or site-specific information including the effects of season and age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderately high.

Region 9: San Diego River (lower)
Dissolved Oxygen

Water Body	San Diego River (lower)
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/WARM, COLD, WILD
Data quality assessment. Extent to which data quality requirements met.	Padre Dam Municipal Water District Receiving Water Sampling/analysis.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (6.0 mg/L) used; annual mean concentration not to be <7 mg/L more than 10% of the time.
Water Body-specific Information	Data age = 4 years.
Data used to assess water quality	Sampling in September 1997 and from April to December 2000 by the Padre Dam Municipal Wastewater District showed dissolved oxygen concentrations to be below the Basin Plan Objective of 6.0 mg/L in 76 of 84 samples (90%). Concentrations below the objective were measured at all 5 sampling points along the river. The average measured concentration was 4.87 mg/L and the median concentration was 4.48 mg/L. In addition, during the year 2000, all 5 stations were below the annual Basin Plan Objective of 7.0 mg/L for more than 10% of the time.
Spatial representation	20 miles of River sampled.
Temporal representation	Sampling completed between September 1997 and December 2000.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Bacterial loading, subsequent decomposition of organic matter, urban runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used.

7. Other water body- or site-specific information including the effects of season and age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 9: San Diego River (lower)
Phosphorus

Water Body	San Diego River (lower)
Stressor/Media/Beneficial Use	Phosphorus/Water/REC-1, REC-2, WARM, COLD
Data quality assessment. Extent to which data quality requirements met.	Padre Dam Municipal Water District Receiving Water Sampling/analysis.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (biostimulatory substances objective) (0.1 mg/L) used.
Water Body-specific Information	Data age = 4 years.
Data used to assess water quality	Sampling in September 1997 and from April to December 2000 by the Padre Dam Municipal Wastewater District showed phosphorus concentrations to exceed the Basin Plan Objective for more than 10% of the time during a one-year period. Numbers of exceedences per samples were found to be 2 out of 5, 5/5, 3/3, 2/2, 2/2, 3/19, 16/19, 19/19, 18/19, and 17/19 at 10 locations in 1997 and 2000. A total of 87 exceedences were recorded for 112 samples (78%).
Spatial representation	5 sample sites (20 miles of River).
Temporal representation	September 1997 to December 2000.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Urban runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of season, and age of the data were considered. An adequate number of the water quality measurements exceeded the water

quality standard. The staff confidence that standards were exceeded is moderate.

Region 9: San Elijo Lagoon
Bacterial Indicators (was "high coliform count")

Water Body	San Elijo Lagoon
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: San Juan Creek
Bacterial Indicators (was "high coliform count")

Water Body	San Juan Creek
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: San Juan Creek (mouth)
Bacterial Indicators (was "high coliform count")

Water Body	San Juan Creek (mouth)
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: San Luis Rey River
Calcium

Water Body	San Luis Rey River
Stressor/Media/Beneficial Use	Calcium
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	Remove from Watch List. No exceedance of appropriate objectives found.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should not be placed on any 303(d)-related list because the data are inadequate to determine if applicable water quality standards are or may be exceeded.

Region 9: San Luis Rey River
Chloride

Water Body	San Luis Rey River
Stressor/Media/Beneficial Use	Chloride/Water/IND, WARM, WILD, RARE
Data quality assessment. Extent to which data quality requirements met.	City of Oceanside Water Utilities Laboratory.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (250 mg/L) used.
Water Body-specific Information	Data age = 4 years.
Data used to assess water quality	Bonsall Bridge: 11/97-06/98: 1/3 (33%) exceedences, mean=281.0 mg/l; 09/98-09/99:3/3 (100%) exceedences, mean=321.0 mg/l; 12/99-11/00: 4/5 (80%) exceedences, mean=314.0 mg/l. Douglas Bridge: 11/97-09/98: 2/4 (50%) exceedences, mean=272.5 mg/l; 03/99-09/99:2/2 (100%) exceedences, mean=310.5 mg/l; 04/00-11/00: 3/4 (75%) exceedences, mean=312.5 mg/l. Benet Road: 11/97-09/98: 2/4 (50%) exceedences, mean=401.5 mg/l; 03 and 12/99: 2/2 (100%) exceedences, mean=444.5 mg/l; 04/00-11/00: 4/4 (100%) exceedences, mean=410.0 mg/l.
Spatial representation	Lower 13 miles of River, nearest City of Oceanside, was sampled at three locations.
Temporal representation	November 1997 to November 2000.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Urban runoff, other point sources and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of season, and age of the data were considered.

Region 9: San Luis Rey River
Chloride

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 9: San Luis Rey River
Total Dissolved Solids

Water Body	San Luis Rey River
Stressor/Media/Beneficial Use	Total Dissolved Solids/Water/AGR
Data quality assessment. Extent to which data quality requirements met.	City of Oceanside Water Utilities Laboratory.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (500 mg/L) used.
Water Body-specific Information	Data age = 1-4 years.
Data used to assess water quality	City of Oceanside sampling: Bonsall Bridge: 11/97-06/98: 3/3 (100%) exceedences, mean=1577 mg/l; 09/98-09/99: 3/3 (100%) exceedences, mean=1512.7 mg/l; 12/99-11/00: 5/5 (100%) exceedences, mean=1694 mg/l. Douglas Bridge: 11/97-09/98: 4/4 (100%) exceedences, mean=1328 mg/l; 03/99-09/99:2/2 (100%) exceedences, mean=1466 mg/l; 04/00-11/00: 4/4 (100%) exceedences, mean=1613 mg/l. Benet Road: 11/97-09/98: 4/4 (100%) exceedences, mean=1572 mg/l; 03/99-12/99: 2/2 (100%) exceedences, mean=1695 mg/l; 04/00-11/00: 4/4 (100%) exceedences, mean=1835 mg/l. RWQCB sampling: samples of 395 and 850 mg/l.
Spatial representation	Lower 13 miles of River, nearest City of Oceanside, was sampled at three locations. Two additional samples were also taken another 4 miles upstream.
Temporal representation	November 1997 to November 2000.
Data type	Numerical data.
Use of standard method	NPDES procedures.
Potential Source(s) of Pollutant	Anthropogenic sources, imported water, evaporation, and natural salt sources. Also, urban runoff, agriculture runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	Unknown.
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body.

4. Water quality standard used is applicable.
5. Data are numerical.
6. Standard methods were used.
7. Other water body- or site-specific information including the effects of season and age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 9: Sandia Creek (was Sandia Canyon)
Total Dissolved Solids

Water Body	Sandia Creek (was Sandia Canyon)
Stressor/Media/Beneficial Use	Total Dissolved Solids/Water/MUN, AGR
Data quality assessment. Extent to which data quality requirements met.	WQ Studies and Proposed Watershed Monitoring Program Report, SDRWQCB Monitoring data.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (750 mg/L) used.
Water Body-specific Information	Data age = 1-4 years.
Data used to assess water quality	11/11 (100%) violations of WQO, average = 917.7 mg/L.
Spatial representation	Two samples, at top and bottom of Reach.
Temporal representation	Unknown.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Anthropogenic sources, imported water, evaporation, and natural salt sources. Also, urban runoff, agriculture runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of season and age of the data were considered. An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 9: Santa Margarita River (Upper)
Phosphorus

Water Body	Santa Margarita River (Upper)
Stressor/Media/Beneficial Use	Phosphorus/Water/MUN, REC-1, REC-2, WARM, COLD, WILD, RARE
Data quality assessment. Extent to which data quality requirements met.	Final WQ Studies and Proposed Watershed Monitoring Program Report, SDRWQCB Monitoring data, RCWD Annual Receiving Water Monitoring Report (2000).
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (biostimulatory substance index = 0.1 mg/L) used.
Water Body-specific Information	Data age = 4 years.
Data used to assess water quality	Camp Pendleton sampling: (near Temecula) 12/97-11/98: 4/5 (80%) violations, average = 0.24 mg/L; 02/99 and 05/99: 1/2 (50%) violations, mean=0.17 mg/mL. (near Fallbrook) 12/97-11/98: 4/5 (80%) violations, mean=0.25 mg/m; 02/99 and 05/99: 1/2 (50%) violations, mean = 0.12 mg/mL. RWQCB sampling: 1/1 (100%) and 1/1 (100%); 0.62 mg/L (at Willow Glen Road). RCWD sampling: 1/8 (13%) > WQO, (near Willow Glen Road) 1/8 (13%) violations, mean = 0.029 mg/L; (near De Luz Road) 1/6 (17%) violations, mean = 0.043 mg/L.
Spatial representation	32 total samples at 4 stations along segment.
Temporal representation	December 1997 to November 1998.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Urban runoff, other point sources and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of season and age of the data were considered.

Region 9: Santa Margarita River (Upper)
Phosphorus

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 9: Segunda Deshecha Creek
Phosphorus

Water Body	Segunda Deshecha Creek
Stressor/Media/Beneficial Use	Phosphorus/Water/REC-1, REC-2, WARM, WILD
Data quality assessment. Extent to which data quality requirements met.	NPDES permit monitoring.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (biostimulatory substance index = 0.1 mg/L) used.
Water Body-specific Information	Data age = 4 years.
Data used to assess water quality	7/97-6/98: 13/16 (81%) exceedences, mean=0.73 mg/mL; 8/98-7/99: 15/20 (75%) exceedences, mean=0.25 mg/mL; 10/99-6/00: 6/7 (86%) exceedences, mean=0.37 mg/mL, all from wet months.
Spatial representation	One sample site.
Temporal representation	July 1997 to June 1998.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Urban runoff, other point sources and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of season and age of the data were considered. An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 9: Segunda Deshecha Creek
Turbidity

Water Body	Segunda Deshecha Creek
Stressor/Media/Beneficial Use	Turbidity/Water/WARM, WILD
Data quality assessment. Extent to which data quality requirements met.	NPDES permit monitoring.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (20 Nephelometric Turbidity Units [NTU]) used.
Water Body-specific Information	Data age = 1-4 years.
Data used to assess water quality	7/97-6/98: 9/16 (56%) exceedences, mean=295.2 NTU; 8/98-7/99: 10/20 (50%) exceedences, mean=43.4 NTU; 10/99-6/00: 2/7 (100%) exceedences, mean=14.0 NTU, all from wet months.
Spatial representation	One sample site.
Temporal representation	July 1997 to June 2000.
Data type	Numerical data.
Use of standard method	
Potential Source(s) of Pollutant	Channelization, increased water velocity, undercutting of banks; increased turbidity, current/historic construction.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem. This conclusion is based on the staff findings that: 1. The data is considered to be of adequate quality. 2. The data exhibited sufficient spatial and temporal coverage. 3. Beneficial uses have been established for and apply to the water body. 4. Water quality standard used is applicable. 5. Data are numerical. 6. Standard methods were used. 7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered. An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is high.

Region 9: Sutherland Reservoir (was Lake Sutherland)
Color

Water Body	Sutherland Reservoir (was Lake Sutherland)
Stressor/Media/Beneficial Use	Color/Water/MUN, REC-2
Data quality assessment. Extent to which data quality requirements met.	City of San Diego WQ Laboratory, (narrative) descriptions by SDWD.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	WQO (Basin Plan) (15 color units) used.
Water Body-specific Information	Data age = 1-5 years.
Data used to assess water quality	Data from the City of San Diego Water Quality Lab from March 1997 to June 2000 show the Basin Plan objective to be exceeded for more than 10% of the time during a one-year period. From March 1998 to March 1999, 3 of 3 samples (100%) exceeded the objective, with a mean of 33.7 color units and a median of 34.0 color units. From June 1999 to June 2000, 5 of 5 samples exceeded the objective, with a mean of 25.2 color units and a median of 26.0 color units. From September 2000 to December 2000, 3 of 3 samples exceeded the objective, with a mean of 22.3 color units and a median of 28.0 color units. In addition, staff at the San Diego Water Department have noticed a persistent odor problem as well as excessive algae growth at the reservoir. Odor, color, and excessive algae growth in the reservoir are typically due to excessive nutrients (nitrogen and phosphorous). However, actual concentrations of nitrogen and phosphorous do not currently exceed Basin Plan objectives. This may be due to the fact that the algae are using a majority of the available nutrients. Nutrient data from City of San Diego Water Quality Lab from March 1997 to July 2001 showed only 1 of 17 samples (6%) to have a detectable concentration of phosphate or nitrate.
Spatial representation	3 to 5 samples were used, indicative of the entire reservoir.
Temporal representation	March 1997 to July 2001.
Data type	Numerical data.
Use of standard method	City of San Diego WQ Laboratory, (narrative) descriptions by SDWD.
Potential Source(s) of Pollutant	Excessive algae growth, urban runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable water quality standards are exceeded and a pollutant contributes to or causes the problem.

Region 9: Sutherland Reservoir (was Lake Sutherland)
Color

This conclusion is based on the staff findings that:

1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses have been established for and apply to the water body.
4. Water quality standard used is applicable.
5. Data are numerical.
6. Standard methods were used.
7. Other water body- or site-specific information including the effects of natural sources, season, storm events, and age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

Region 9: Tecolote Creek
Bacterial Indicators (was "high coliform count")

Water Body	Tecolote Creek
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Tijuana River
Bacterial Indicators (was "high coliform count")

Water Body	Tijuana River
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Tijuana River Estuary
Bacterial Indicators (was "high coliform count")

Water Body	Tijuana River Estuary
Stressor/Media/Beneficial Use	Bacterial Indicators (was "high coliform count")
Data quality assessment. Extent to which data quality requirements met.	
Linkage between measurement endpoint and benefical use or standard	
Utility of measure for judging if standards or uses are not attained	
Water Body-specific Information	
Data used to assess water quality	
Spatial representation	
Temporal representation	
Data type	
Use of standard method	
Potential Source(s) of Pollutant	
Alternative Enforceable Program	
RWQCB Recommendation	All previous (1998) listings for "High Coliform Count" should be changed to "Bacterial Indicators." This will ensure consistency between the 1998 List and the 2002 Updated List. For 1998 listings, "Bacterial Indicators" implies that impairment was due to fecal coliform, total coliform, or both. For the 2002 update, "Bacterial Indicators" implies impairment was due to fecal coliform, total coliform, enterococci or a combination of any of the three. In the San Diego Region, enterococci measurements commenced in 1999.
SWRCB Staff Recommendation	Change pollutant designation from "high coliform count" to "Bacterial indicators."

Region 9: Tijuana River Estuary
Dissolved Oxygen

Water Body	Tijuana River Estuary
Stressor/Media/Beneficial Use	Dissolved Oxygen/Water/COMM, BIOL, EST, WILD, RARE, MAR, MIGR
Data quality assessment. Extent to which data quality requirements met.	Tijuana Estuary monitoring.
Linkage between measurement endpoint and benefical use or standard	Pollutant can have a direct impact on beneficial uses.
Utility of measure for judging if standards or uses are not attained	Basin Plan objective, dissolved oxygen concentration: 5.0 mg/L, any waterbody designated with MAR beneficial use. In addition, Basin Plan sets an annual objective of 7mg/L that shall not be exceeded more than 10% of the time during a one-year period.
Water Body-specific Information	Data age = 3-4 years.
Data used to assess water quality	Dissolved oxygen concentration (DO) measurements were collected every 30 minutes for the entire years of 1997 and 1998. 1997 data followed trends similar to those in 1998, summarized below. DO was generally below the objective between 10 p.m. and 8 a.m. almost every day of the month. Although it is typical for DO to decrease at night, DO declines in the Estuary were excessive (concentrations generally below 3 mg/L). The median concentrations for 6 of the 12 months (50%) were below 5 mg/L and the median concentrations for 7 of 12 months (58%) were below 7.0 mg/L. This high percentage of median concentrations below 7.0 mg/L is considered as evidence of violation of the annual Basin Plan objective for dissolved oxygen. These low DO conditions are expected to impair the COMM, BIOL, EST, WILD, RARE, MAR and MIGR beneficial uses.
Spatial representation	One sample station used. RWQCB staff found it to be representative of entire estuary.
Temporal representation	Sampled every 30 minutes for two years.
Data type	Numerical data.
Use of standard method	Tijuana Estuary monitoring procedures used.
Potential Source(s) of Pollutant	Massive bacterial loading from raw sewage flows cause oxygen depletion, decaying organic matter, urban runoff, other point sources, and nonpoint sources.
Alternative Enforceable Program	
RWQCB Recommendation	List.
SWRCB Staff Recommendation	After reviewing the available data and information and the RWQCB documentation for this recommendation, SWRCB staff concludes that the water body should be placed on the section 303(d) list because applicable

water quality standards are exceeded and a pollutant contributes to or causes the problem.

This conclusion is based on the staff findings that:
1. The data is considered to be of adequate quality.
2. The data exhibited sufficient spatial and temporal coverage.
3. Beneficial uses have been established for and apply to the water body.
4. Water quality standard used is applicable.
5. Data are numerical.
6. Standard methods were used.
7. Other water body- or site-specific information including the effects of season, storm events, and age of the data were considered.

An adequate number of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is moderate.

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Water Bodies Proposed for the Monitoring List in Region 9

Water Body	Pollutant/Stressor	Rationale
Agua Hedionda Creek		
	Benthic Community Degradation	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Diazinon	Information, new since the original 2001 submittal, revealed poor quality assurance (QA) for the original data. The reported values are estimates that fall outside of the calibration range. Additionally, four of the positive detections had significant differences between the primary and confirmatory columns. Of the six data points used in the original assessment, only the sample collected on January 25, 2000 does not have significant QA concerns. This sample is reported to have a concentration of <0.50 ug/L and therefore, cannot be assessed against the water quality criteria of 0.05 ug/L.
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Incised Channel	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body. However, no data was readily available to support a Section 303(d) listing during the 2002 listing review process.
Agua Hedionda Lagoon		
	Copper (dissolved)	Data from "Report of Waste Discharge Agua Hedionda Lagoon and Fish Hatchery" from the year 2000 indicate possible exceedance of the "CTR Enclosed Bays and Estuaries Saltwater Aquatic Life Protection CMC and CCC" as found in "A Compilation of Water Quality Goals" by J. B. Marshack, 2000. Additional monitoring is necessary to confirm this possibility.
	Selenium	Data from "Report of Waste Discharge Agua Hedionda Lagoon and Fish Hatchery" from the year 2000 indicate possible exceedance of the "CTR Enclosed Bays and Estuaries Saltwater Aquatic Life Protection CCC" as found in "A Compilation of Water Quality Goals" by J.B. Marshack, 2000. Additional monitoring is necessary to confirm this possibility.
Aliso Creek		
	Chlordane	Toxic Substances Monitoring Program data indicated a possible exceedance of the USEPA Screening value for Subsistence Fishers, but too few data were collected for validity.
	Dieldrin	Toxic Substances Monitoring Program data indicated a possible exceedance of the USEPA Screening value, but too few data were collected for validity.
	Heptachlorepoxide	Toxic Substances Monitoring Program data indicated a possible exceedance of the USEPA Screening value, but too few data were collected for validity.
	PCBs	Toxic Substances Monitoring Program data indicated a possible exceedance of the USEPA Screening value for Recreational Fishers, but too few data were collected for validity.
Alvarado Creek		
	Benthic Community Degradation	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.

Water Body	Pollutant/Stressor	Rationale
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Sedimentation/Siltation	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
	Trash	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
Beach and Bay Shorelines displaying a permanent health risk sign		
	Unknown constituents that may effect human health	Underlying data/information exists to warrant warnings posted by health care agencies. However, additional monitoring/research is necessary to verify the presence and extent of impacts to water quality standards.
Boulder Creek		
	Exotic Vegetation (Tamarisk sp.)	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/waterbody, but no data was readily available to support a Section 303(d) listing.
	Hydromodification (scour from reservoir release)	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
Buena Vista Creek		
	Benthic Community Degradation	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
Chocolate Creek		
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Sedimentation/Siltation	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
Chollas Creek		
	Total Chlordane	Toxic Substances Monitoring Program data indicated a possible exceedance of the USEPA Screening value for Subsistence Fishers, but too few data were collected for validity.
	Total PCBs	Toxic Substances Monitoring Program data indicated a possible exceedance of the USEPA Screening value for Subsistence Fishers, but too few data were collected for validity.
	Trash	Photographs of trash collected at a U.S. Navy boom show a significant amounts of trash following wet weather events. RWQCB staff observed large amounts of trash during dry weather in June 2002. Further monitoring and quantification of trash amounts is necessary.

Water Body	Pollutant/Stressor	Rationale
	Turbidity	Sampling by the City of San Diego from 1997 to 2000 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is required to verify this possibility.
Cloverdale Creek		
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Sedimentation/Siltation	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
Cottonwood Creek		
	Diazinon	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
	Eutrophication	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
	Exotic Vegetation (Tamarisk sp.)	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
	Hydromodification (scour from reservoir release)	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
Deluz Creek		
	Sulfate	Quarterly sampling by Camp Pendleton from 1997 to 2000 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is required to confirm this possibility.
	Total Dissolved Solids	Quarterly sampling by Camp Pendleton from 1997 to 2000 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is required to confirm this possibility.
Delzura Creek		
	Erosion, Incised Channel	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Sedimentation/Siltation	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
Encinitas Creek		
	Diazinon	Data from the City of Encinitas Municipal Storm Water Permit Compliance Report indicated possible exceedance of both the chronic and acute California Department of Fish and Game Water Quality Criteria in 2000. Further monitoring is necessary to confirm this possibility.
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.

Water Body	Pollutant/Stressor	Rationale
	Malathion	Data from the City of Encinitas Municipal Storm Water Permit Compliance Report indicated possible exceedance of both the chronic and acute California Department of Fish and Game Water Quality Criteria in 2000. Further monitoring is necessary to confirm this possibility.
Escondido Creek		
	Benthic Community Degradation	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Diazinon	Data from the City of Encinitas Municipal Storm Water Permit Compliance Report indicated possible exceedance of both the chronic and acute California Department of Fish and Game Water Quality Criteria in 2000. Further monitoring is necessary to confirm this possibility.
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Sulfate	Sampling by the Department of Water Resources from 1999 to 2000 indicated possible exceedance of the Basin Plan Objective. Further monitoring is necessary to confirm this possibility.
	Total Dissolved Solids	Sampling by the Department of Water Resources from 1999 to 2000 indicated possible exceedance of the Basin Plan Objective. Further monitoring is necessary to confirm this possibility.
Fallbrook Creek		
	Iron	Quarterly sampling by Camp Pendleton from 1997 to 2000 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is required to confirm this possibility.
	Manganese	Quarterly sampling by Camp Pendleton from 1997 to 2000 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is required to confirm this possibility.
	Phosphorus	Quarterly sampling by Camp Pendleton from 1997 to 2000 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is required to confirm this possibility.
Famosa Slough and Channel (was Famosa Slough)		
	Dieldrin	Toxic Substances Monitoring Program data indicated a possible exceedance of the USEPA Screening value for Recreational Fishers, but too few data were collected for validity.
	Total Chlordane	Toxic Substances Monitoring Program data indicated a possible exceedance of the USEPA Screening value for Subsistence Fishers, but too few data were collected for validity.
	Total DDT	Toxic Substances Monitoring Program data indicated a possible exceedance of the USEPA Screening value for Subsistence Fishers, but too few data were collected for validity.
	Total PCB	Toxic Substances Monitoring Program data indicated a possible exceedance of the USEPA Screening value for Recreational Fishers, but too few data were collected for validity.
Forester Creek (was "Forrester Creek")		
	Eutrophication	Photographic evidence was submitted by a concerned citizen suggesting that water quality standards could not be met. Further study is necessary to confirm this possibility.

Water Body	Pollutant/Stressor	Rationale
	Trash	Photographic evidence was submitted by a concerned citizen suggesting that water quality standards could not be met. Further study is necessary to confirm this possibility.
Green Valley Creek		
	Benthic Community Degradation	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Phosphorus	Sampling by the City of San Diego from 1999 to 2000 indicated possible exceedance of the Basin Plan Objective for Biostimulatory Substances. Additional monitoring is required to verify this possibility.
	Sedimentation/Siltation	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
	Trash	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
Hatfield Creek		
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Incised Channel	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
Hodges, Lake (was Lake Hodges [was Hodges Reservoir])		
	MTBE	Sampling by the City of San Diego from 1997 to 2001 indicated possible exceedances of the "California Department of Health Service's Primary and Secondary MCL" and of "OEHHA's California Public Health Goal" (both as found in "A Compilation of Water Quality Goals" by J.B. Marshack, 2000). Additional monitoring is required to verify this possibility.
King Creek		
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
Laguna Lakes		
	Bacterial Indicators	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
Loma Alta Creek		
	Benthic Community Degradation	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.

Water Body	Pollutant/Stressor	Rationale
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
Los Penasquitos Creek		
	Sedimentation/Siltation	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
Murray Reservoir		
	Bromodichloromethane	Data collected by the City of San Diego indicate possible exceedance of the "CTR Inland Surface Waters Human Health 30-day Average Drinking Water Sources (consumption of water and aquatic organisms) goal" as found in "A Compilation of Water Quality Goals" by J.B. Marshack, 2000. Additional monitoring is required to confirm this possibility.
	Phosphorus	Samples collected by the City of San Diego from 1997 to 1998 indicated possible exceedance of the Basin Plan Objective for biostimulatory substances. Additional monitoring is necessary to confirm this possibility.
	Sodium	Sampling by the City of San Diego from 1996 to 2000 indicate possible exceedance of the USEPA "Suggested No Adverse Effects Level" as found in "A Compilation of Water Quality Goals" by J.B. Marshack, 2000. Additional monitoring is required to confirm this possibility.
Murrieta Creek		
	Iron	Quarterly sampling by Camp Pendleton from 1997 to 2000 and one-time sampling by RWQCB staff in 1998, indicated possible exceedance of the Basin Plan Objective). Additional monitoring is required to confirm this possibility.
	Manganese	Quarterly sampling by Camp Pendleton from 1997 to 2000 and one-time sampling by RWQCB staff in 1998, indicated possible exceedance of the Basin Plan Objective). Additional monitoring is required to confirm this possibility.
	Total Dissolved Solids	Quarterly sampling by Camp Pendleton from 1997 to 2000 and one-time sampling by RWQCB staff in 1998, indicated possible exceedance of the Basin Plan Objective). Additional monitoring is required to confirm this possibility.
Oceanside Harbor		
	Copper (dissolved)	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
Oso Creek		
	Chloride	Data collected by the Santa Margarita Water District between 1998 and 2001 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is required to confirm this possibility.
	Phosphorus	Data collected by the Santa Margarita Water District between 1998 and 2001 indicated possible exceedance of the Basin Plan Objective for Biostimulatory Substances. Additional monitoring is required to confirm this possibility.
	Sulfate	Data collected by the Santa Margarita Water District between 1998 and 2001 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is required to confirm this possibility.
	Total Dissolved Solids	Data collected by the Santa Margarita Water District between 1998 and 2001 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is required to confirm this possibility.
	Turbidity	2000 Annual NPDES (MS4) Progress Report from the County of Orange indicated possible exceedance of Basin Plan Objective. Additional monitoring is required to confirm this possibility.

Water Body	Pollutant/Stressor	Rationale
Otay Reservoir, Lower (was Lower Otay Reservoir)		
	Color	Sampling by the City of San Diego from 1997 to 2000 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is necessary to confirm this possibility.
	Odor	Sampling by the City of San Diego from 1997 to 2000 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is necessary to confirm this possibility.
Pacific Ocean Shoreline, Miramar Reservoir HA (was Miramar Reservoir)		
	Bromodichloromethane	Data collected by the City of San Diego indicate possible exceedance of the "CTR Inland Surface Waters Human Health 30-day Average Drinking Water Sources (consumption of water and aquatic organisms) goal" as found in "A Compilation of Water Quality Goals" by J.B. Marshack, 2000. Additional monitoring is required to confirm this possibility.
	Total Dissolved Solids	Samples collected by the City of San Diego from 1999 to 2001 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is necessary to confirm this possibility.
Padre Barona Creek		
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Incised Channel	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
Prima Deshecha Creek (was Prima Deshecha Channel)		
	Cadmium	2000 Annual NPDES (MS4) Progress Report from the County of Orange indicated possible exceedance of California Toxics Rule CMC for Freshwater Aquatic Life. Additional monitoring is required to confirm this possibility.
	Nickel	2000 Annual NPDES (MS4) Progress Report from the County of Orange indicated possible exceedance of California Toxics Rule CCC for Freshwater Aquatic Life. Additional monitoring is required to confirm this possibility.
Proctor Valley Creek		
	Trash	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
Rainbow Creek		
	Sediment Toxicity	Sediment Toxicity Tests conducted in 1996 indicated possible toxic conditions. Additional monitoring is required to confirm this possibility.
	Sulfate	Quarterly sampling by Camp Pendleton from 1997 to 2000 indicated possible exceedance of the Basin Plan Objective (Table 3.2). Additional monitoring is required to confirm this possibility.
	Total Dissolved Solids	Quarterly sampling by Camp Pendleton from 1997 to 2000 and one-time sampling by the Regional Board in 1998, indicated possible exceedance of the Basin Plan Objective (Table 3.2). Additional monitoring is required to confirm this possibility.
	Trash	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.

Water Body	Pollutant/Stressor	Rationale
Reidy Creek		
	Nitrogen	One sampling event in 2001 by the RWQCB staff indicated possible exceedance of the Basin Plan Objective for Biostimulatory Substances. Additional monitoring is necessary to confirm this possibility.
	Phosphorus	One sampling event in 2001 by the RWQCB staff indicated possible exceedance of the Basin Plan Objective for Biostimulatory Substances. Additional monitoring is necessary to confirm this possibility.
Rose Creek		
	Sedimentation/Siltation	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
San Diego Bay Shoreline, at America's Cup Harbor (was San Diego Bay at America's Cup Harbor)		
	Copper (dissolved)	Sampling by the U.S. Navy and RWQCB staff indicated possible exceedance of the California Toxics Rule criteria for copper. Additional monitoring is necessary to confirm this possibility.
San Diego Bay Shoreline, at Harbor Island (East Basin) (was San Diego Bay at Harbor Island [East Basin])		
	Arsenic	1997-98 State Mussel Watch data showed possible exceedance of the MTRL for inland surface waters (edible portion). Further monitoring is necessary to confirm the possibility that beneficial uses are being impacted.
	Cadmium	1997-98 State Mussel Watch data showed possible exceedance of the MTRL for inland surface waters (edible portion). Further monitoring is necessary to confirm the possibility that beneficial uses are being impacted.
	Copper (dissolved)	1997-98 State Mussel Watch data showed possible exceedance of the MTRL for inland surface waters (edible portion). Further monitoring is necessary to confirm the possibility that beneficial uses are being impacted.
San Diego Bay Shoreline, at Harbor Island (West Basin) (was San Diego Bay at Harbor Island [West Basin])		
	Copper (dissolved)	Sampling by the U.S. Navy and RWQCB staff indicated possible exceedance of the California Toxics Rule criteria for copper. Additional monitoring is necessary to confirm this possibility.
San Diego Bay Shoreline, at Laurel Street (was San Diego Bay at Laurel Street)		
	Arsenic	1997-98 State Mussel Watch data showed possible exceedance of the MTRL for inland surface waters (edible portion). Further monitoring is necessary to confirm the possibility that beneficial uses are being impacted.
	Cadmium	1997-98 State Mussel Watch data showed possible exceedance of the MTRL for inland surface waters (edible portion). Further monitoring is necessary to confirm the possibility that beneficial uses are being impacted.
	Copper (dissolved)	1997-98 State Mussel Watch data showed possible exceedance of the MTRL for inland surface waters (edible portion). Further monitoring is necessary to confirm the possibility that beneficial uses are being impacted.

Water Body	Pollutant/Stressor	Rationale
San Diego Bay Shoreline, at Marriott Marina (was San Diego Bay at Marriott Marina)		
	Copper (dissolved)	Sampling by the Port of San Diego indicated possible exceedance of the California Toxics Rule criteria for copper. Additional monitoring is necessary to confirm this possibility.
San Diego Bay Shoreline, at North Island Aircraft Platform (was San Diego Bay at North Island Aircraft Platform)		
	Arsenic	1997-98 State Mussel Watch data showed a possible exceedance of the MTRL for inland surface waters (edible portion). Further monitoring is needed to confirm whether beneficial uses are being significantly impacted.
	Cadmium	1997-98 State Mussel Watch data showed a possible exceedance of the MTRL for inland surface waters (edible portion). Further monitoring is needed to confirm whether beneficial uses are being significantly impacted.
	Copper (dissolved)	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
San Diego Bay Shoreline, Shelter Island Yacht Basin (was San Diego Bay at Shelter Island Yacht Harbor)		
	Arsenic	1997-98 State Mussel Watch data showed possible exceedance of the MTRL for inland surface waters (edible portion). Further monitoring is necessary to confirm the possibility that beneficial uses are being impacted.
	Cadmium	1997-98 State Mussel Watch data showed possible exceedance of the MTRL for inland surface waters (edible portion). Further monitoring is necessary to confirm the possibility that beneficial uses are being impacted.
San Diego River (upper and lower) (was San Diego River)		
	Benthic Community Degradation	1999 Benthic Macroinvertebrate Index indicated possible degraded benthic community. Further research is needed to determine whether beneficial uses are truly impacted.
	Benzene	Area university research paper found benzene and MTBE groundwater contamination impacting the San Diego River. Further study is needed to confirm this possibility.
	Chlordane	1978 to 2000 Toxic Substances Monitoring Program data indicated possible exceedance of MTRLs in fish tissue. Further study is necessary to confirm the possibility that beneficial uses are being significantly impacted.
	Eutrophication	Photographic evidence submitted by a concerned citizen suggest that there is a significant water quality problem due to eutrophication. Further monitoring is necessary to confirm this possibility.
	Exotic Vegetation (Water Hyacinth, Arundo sp., Tamarisk sp.)	Photographic evidence submitted by a concerned citizen suggest that there is a significant water quality problem due to exotic vegetation. Further monitoring is necessary to confirm this possibility.
	Methyl Tertiary-butyl Ether (MTBE)	Area university research paper found MTBE groundwater contamination impacting the San Diego River. Further study is needed to confirm this possibility.
	Trash	Photographic evidence submitted by a concerned citizen suggest that there is a significant water quality problem due to trash. Further monitoring is necessary to confirm this possibility.

Water Body	Pollutant/Stressor	Rationale
San Juan Creek		
	Erosion	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
	Incised Channel	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
	PCBs	2000 Toxic Substances Monitoring Program data indicated possible exceedance of USEPA Screening Value for Recreational Fishers. Further sampling is needed to confirm whether water quality standards are being significantly impacted.
	Sedimentation/Siltation	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
San Luis Rey River		
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Magnesium	Data collected by the City of Oceanside from 1997 to 2000 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is necessary to confirm this possibility.
	Phosphorus	Data collected by the City of Oceanside in 2000 and in 1998 by the Regional Board indicated possible exceedance of the Basin Plan Objective for Biostimulatory Substances. Additional monitoring is necessary to confirm this possibility.
San Marcos Lake		
	Dissolved oxygen	Community-group letter claims that fish kills occur due to low oxygen. However, no data were submitted. Additional study is required to investigate the possibility that beneficial uses are significantly impacted.
San Mateo Creek		
	Introduced (non-native) Amphibian Species: Bullfrogs	These non-native fauna and flora have been identified by the RWQCB staff in the Creek and are expected to negatively impact native populations through direct competition and predation and indirectly through habitat alteration. Additional study is needed to determine if beneficial uses of water are being significantly impacted.
	Introduced (non-native) Fish Species: Black Bullhead, Bluegill, Channel Catfish, Green Sunfish, Largemouth Bass, Mosquito Fish.	These non-native fauna and flora have been identified by the RWQCB staff in the Creek and are expected to negatively impact native populations through direct competition and predation and indirectly through habitat alteration. Additional study is needed to determine if beneficial uses of water are being significantly impacted.
	Introduced (non-native) Invertebrate Species: Non-native Crayfish	These non-native fauna and flora have been identified by the RWQCB staff in the Creek and are expected to negatively impact native populations through direct competition and predation and indirectly through habitat alteration. Additional study is needed to determine if beneficial uses of water are being significantly impacted.
	Introduced (non-native) Plant Species: Saltcedar, Other Exotic Vegetation	These non-native fauna and flora have been identified by the RWQCB staff in the Creek and are expected to negatively impact native populations through direct competition and predation and indirectly through habitat alteration. Additional study is needed to determine if beneficial uses of water are being significantly impacted.
	Total Dissolved Solids	The 'Final Report of Water Quality Studies and Proposed Watershed Monitoring Program for Portions of San Mateo and Santa Margarita River Watershed' produced by LAW-Crandall in 2001 indicates possible exceedance of the Basin Plan Objective. Additional monitoring is necessary to confirm this possibility.

Water Body	Pollutant/Stressor	Rationale
Sandia Creek (was Sandia Canyon)		
	Lead	One-time sampling in 1998 by the Regional Board indicated possible exceedance of the USEPA National Primary Drinking Water Regulations MCL. Additional monitoring is necessary to confirm this possibility.
	Sulfate	Quarterly sampling by Camp Pendleton from 1997 to 2000 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is necessary to confirm this possibility.
Santa Margarita River (entire and tributaries)		
	Sedimentation/Siltation	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
Santa Margarita River (Lower)		
	Iron	Quarterly sampling by Camp Pendleton from 1997 to 2000 and one-time sampling by the Regional Board in 1998, indicated possible exceedance of the Basin Plan Objective. Additional monitoring is necessary to confirm this possibility. After reviewing available information from the RWQCB, SWRCB staff concludes that the water body should be placed on the Monitoring Priority List because the data are inadequate to determine if applicable water quality standards are exceeded. This conclusion is based on the staff findings that: 1. The data is considered to be of inadequate quality. 2. The data exhibited insufficient spatial and temporal coverage. 3. Non-standard methods were used. An inadequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is low.
	Manganese	Quarterly sampling by Camp Pendleton from 1997 to 2000 and one-time sampling by the Regional Board in 1998, indicated possible exceedance of the Basin Plan Objective. Additional monitoring is necessary to confirm this possibility. After reviewing available information from the RWQCB, SWRCB staff concludes that the water body should be placed on the Monitoring Priority List because the data are inadequate to determine if applicable water quality standards are exceeded. This conclusion is based on the staff findings that: 1. The data is considered to be of inadequate quality. 2. The data exhibited insufficient spatial and temporal coverage. 3. Non-standard methods were used. An inadequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is low.

Water Body	Pollutant/Stressor	Rationale
	Sulfate	Quarterly sampling by Camp Pendleton from 1997 to 2000 indicated possible exceedance of the California Code of Regulations Secondary MCL. Additional monitoring is necessary to confirm this possibility. After reviewing available information from the RWQCB, SWRCB staff concludes that the water body should be placed on the Monitoring Priority List because the data are inadequate to determine if applicable water quality standards are exceeded. This conclusion is based on the staff findings that: 1. The data is considered to be of inadequate quality. 2. The data exhibited insufficient spatial and temporal coverage. 3. Non-standard methods were used. An inadequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is low.
	Total Dissolved Solids	Quarterly sampling by Camp Pendleton from 1997 to 2000 and one-time sampling by the Regional Board in 1998, indicated possible exceedance of the Basin Plan Objective. Additional monitoring is necessary to confirm this possibility. After reviewing available information from the RWQCB, SWRCB staff concludes that the water body should be placed on the Monitoring Priority List because the data are inadequate to determine if applicable water quality standards are exceeded. This conclusion is based on the staff findings that: 1. The data is considered to be of inadequate quality. 2. The data exhibited insufficient spatial and temporal coverage. 3. Non-standard methods were used. An inadequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is low.
Santa Margarita River (Upper)		
	Iron	Quarterly sampling by Camp Pendleton from 1997 to 2000 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is necessary to confirm this possibility. After reviewing available information from the RWQCB, SWRCB staff concludes that the water body should be placed on the Monitoring Priority List because the data are inadequate to determine if applicable water quality standards are exceeded. This conclusion is based on the staff findings that: 1. The data is considered to be of inadequate quality. 2. The data exhibited insufficient spatial and temporal coverage. 3. Non-standard methods were used. An inadequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is low.

Water Body	Pollutant/Stressor	Rationale
	Manganese	Quarterly sampling by Camp Pendleton from 1997 to 2000 indicated possible exceedance of the Basin Plan Objective (Secondary MCL and Table 3.2). Additional monitoring is necessary to confirm this possibility. After reviewing available information from the RWQCB, SWRCB staff concludes that the water body should be placed on the Monitoring Priority List because the data are inadequate to determine if applicable water quality standards are exceeded. This conclusion is based on the staff findings that: 1. The data is considered to be of inadequate quality. 2. The data exhibited insufficient spatial and temporal coverage. 3. Non-standard methods were used. An inadequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is low.
	Sulfate	Quarterly sampling by Camp Pendleton from 1997 to 2000 indicated possible exceedance of the California Code of Regulations Secondary MCL. Additional monitoring is necessary to confirm this possibility. After reviewing available information from the RWQCB, SWRCB staff concludes that the water body should be placed on the Monitoring Priority List because the data are inadequate to determine if applicable water quality standards are exceeded. This conclusion is based on the staff findings that: 1. The data is considered to be of inadequate quality. 2. The data exhibited insufficient spatial and temporal coverage. 3. Non-standard methods were used. An inadequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is low.
	Total Dissolved Solids	Quarterly sampling by Camp Pendleton from 1997 to 2000 and one-time sampling by the Regional Board in 1998, indicated possible exceedance of the Basin Plan Objective. Additional monitoring is necessary to confirm this possibility. After reviewing available information from the RWQCB, SWRCB staff concludes that the water body should be placed on the Monitoring Priority List because the data are inadequate to determine if applicable water quality standards are exceeded. This conclusion is based on the staff findings that: 1. The data is considered to be of inadequate quality. 2. The data exhibited insufficient spatial and temporal coverage. 3. Non-standard methods were used. An inadequate amount of the water quality measurements exceeded the water quality standard. The staff confidence that standards were exceeded is low.
Santa Maria Creek		
	Bacterial Indicators	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Exotic Vegetation (Tamarisk sp.)	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.

Water Body	Pollutant/Stressor	Rationale
Santa Ysabel Creek		
	Exotic Vegetation (Arundo sp. and Tamarisk sp.)	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
Scove Creek		
	Bacterial Indicators	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
	Incised Channel	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
	Nutrients	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
Sorrento (Carroll Canyon) Valley Creek		
	Eutrophication	Through direct observation, RWQCB staff believes that a water quality problem exists because of prior experience with the watershed/water body, but data were unavailable to support a Section 303(d) listing. Additional monitoring is required to confirm the possible extent of impacts to beneficial uses.
Sycamore Canyon Creek		
	Eutrophication	Photographic evidence submitted by a concerned citizen suggest that there is a significant water quality problem due to eutrophication. Further monitoring is necessary to confirm this possibility.
	Exotic Vegetation (Arundo donax)	Photographic evidence submitted by a concerned citizen suggest that there is a significant water quality problem due to exotic vegetation. Further monitoring is necessary to confirm this possibility.
	Phosphorus	Sampling conducted by the City of San Diego in 2000 indicates possible exceedance of the Basin Plan Objective for Biostimulatory Substances. Additional monitoring is necessary to confirm this possibility.
	Trash	Photographic evidence submitted by a concerned citizen suggest that there is a significant water quality problem due to trash. Further monitoring is necessary to confirm this possibility.
Tecolote Creek		
	Sedimentation/Siltation	RWQCB staff believes that a significant water quality problem exists because of prior experience with, and personal observations in, the watershed/water body, but no data was readily available to support a Section 303(d) listing.
Tijuana River Estuary		
	Turbidity	Sampling by the TJNERR in 1997 and 1998 indicated possible exceedance of the Basin Plan Objective. Additional monitoring is necessary to confirm this possibility.

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