Regional Water Quality Control Board

SAN DIEGO REGION (9)

SECTION 303 (d) LIST PROPOSALS

Region 9 Summary of Recommendations

Water Body	Pollutant/Medium /Beneficial Use	RWQCB Recommendation	SWRCB Recommendation
San Diego River (lower)	Fecal coliform/Water/REC-1	List	List
San Diego River (lower)	Phosphorus/Water/REC-1, REC-2, WARM, COLD	List	List
San Diego River (lower)	Total dissolved solids/Water/AGR	List	List
San Luis Rey River	Chloride/Water/IND, WARM, WILD, RARE	List	List
San Luis Rey River	Total dissolved solids/Water/AGR	List	List
Santa Margarita River (upper)	Phosphorus/Water/MUN, REC-1, REC-2, WARM, COLD, WILD, RARE	List	List
Segunda Deshecha Creek	Phosphorus/Water/REC-1, REC-2, WARM, WILD	List	List
Segunda Deshecha Creek	Turbidity/Water/WARM, WILD	List	List
Tijuana Estuary	Dissolved oxygen/Water/COMM, BIOL, EST, WILD, RARE, MAR, MIGR	List	List
Pacific Ocean Shoreline (Coronado Beach)	Bacterial indicators/Water/REC-1, REC-2	Delist	Delist, and put on Watch List to continue to keep an eye on problem.

Water Body	Pollutant/Medium /Beneficial Use	RWQCB Recommendation	SWRCB Recommendation
Pacific Ocean Shoreline (Ocean Beach)	Bacterial indicators/Water/REC-1, REC-2	Add specific location (not new HA) to 1998 Listing	Add specific location to 1998 listing within same hydrologic area.
Pacific Ocean Shoreline (South Capistrano State Beach)	Bacterial indicators/Water/REC-1, REC-2	Add specific location (not new HA) to 1998 Listing	Add specific location to 1998 listing within same hydrologic area.
Pacific Ocean Shoreline (San Onofre State Beach/San Mateo Creek Outlet)	Bacterial indicators/Water/REC-1, REC-2	Add specific location (not new HA) to 1998 Listing	Add specific location to 1998 listing within same hydrologic area.
San Diego Bay Kellog Street Beach (Pueblo San Diego HU [908.00] and Sweetwater HU [909.00])	Bacterial indicators/Water/REC-1, REC-2	Add specific location (not new HA) to 1998 Listing	Add specific location to 1998 listing within same hydrologic area.
San Diego Bay Shelter Island Shoreline Park (Pueblo San Diego 908.00 and Sweetwater)	Bacterial indicators/Water/REC-1, REC-2	Add specific location (not new HA) to 1998 Listing	Add specific location to 1998 listing within same hydrologic area.
San Diego Bay, Coronado	Bacterial indicators/Water/REC-1, REC-2	Add specific location (not new HA) to 1998 Listing	Add specific location to 1998 listing within same hydrologic area.
Agua Hedionda Creek	Diazinon/Water/WARM, WILD	List	List
Agua Hedionda Creek	Total dissolved solids/Water/MUN, AGR	List	List
Aliso Creek	Enterococci/Water/REC-1	List	List
Aliso Creek	E. coli/Water/REC-1	List	List
Aliso Creek	Fecal coliform/Water/REC-1	List	List
Aliso Creek	Phosphorus/Water/WARM, WILD	List	List

Water Body	Pollutant/Medium /Beneficial Use	RWQCB Recommendation	SWRCB Recommendation
Aliso Creek	Toxicity/Water/WARM, WILD	List	List
Cloverdale Creek	Phosphorus/Water/MUN, REC-1, REC-2, WARM, COLD, WILD, RARE	List	List
Cloverdale Creek	Total dissolved solids/Water/MUN, AGR	List	List
Dana Point Harbor	Bacterial indicators total/fecal coliform, enterococci)/Water/REC-1, SHELL	List	List
Dana Point Harbor	Dissolved copper/Water and sediment/WILD, RARE, MAR, MIGR, SPWN	List	List
Felicita Creek	Total dissolved solids/Water/MUN, AGR	List	List
Forrester Creek	Fecal coliform/Water/REC-1	List	List
Forrester Creek	pH/Water/WARM, COLD, WILD	List	List
Forrester Creek	Total dissolved solids/Water/MUN	List	List
Green Valley Creek	Sulfate/Water/MUN	List	List
Kit Carson Creek	Total dissolved solids/Water/AGR	List	List
Lake Hodges (Hodges Reservoir)	Color/Water/MUN, REC-2	List	List

Water Body	Pollutant/Medium /Beneficial Use	RWQCB Recommendation	SWRCB Recommendation
Lake Hodges (Hodges Reservoir)	Nitrogen/Water/WARM, COLD, WILD, RARE, MUN, IND, PROC, AGR, REC-1, REC-2	List	List
Lake Hodges (Hodges Reservoir)	Phosphorus/Water/WARM, COLD, WILD, RARE, MUN, IND, PROC, AGR, REC-1, REC-2	List	List
Lake Hodges (Hodges Reservoir)	Total dissolved solids/Water/AGR	List	List
Lake Sutherland (Sutherland Reservoir)	Color/Water/MUN, REC-2	List	List
Murrieta Creek	Phosphorus/Water/REC-1, REC-2, WARM, COLD	List	List
Pacific Ocean Shoreline (Torrey Pines State Beach/Miramar Reservoir)	Bacterial indicators/Water/REC-1, REC-2	List	List
Pine Valley Creek (Upper)	Enterococci/Water/REC-1	List	List
Prima Deshecha Creek	Phosphorus/Water/REC-1, REC-2, WARM, WILD	List	List
Prima Deshecha Creek	turbidity/Water/WARM, WILD	List	List
Sandia Creek	Total dissolved solids/Water/MUN, AGR	List	List
San Diego Bay (Switzer Creek)	Degraded benthos/sediment/BIOL, EST, WILD, RARE, MAR, MIGR, SHELL	List	List

Water Body	Pollutant/Medium /Beneficial Use	RWQCB Recommendation	SWRCB Recommendation
San Diego Bay (Switzer Creek)	Toxicity/sediment/BIOL, EST, WILD, RARE, MAR, MIGR, SHELL	List	List
San Diego River (lower)	Dissolved oxygen/Water/WARM, COLD, WILD	List	List

Region 9

Agua Hedionda Creek

Water Body	Agua Hedionda Creek
Stressor/Media/Beneficial Use	Diazinon/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	CDFG, USEPA Criteria (Continuous and Maximum Concentrations) used
Water Body-specific Information	Data age = 1-3 years.
Data used to assess water quality	4/6 (67%) violations > 0.09 ug/L, average = 0.217 ug/L, in wet months
Spatial representation	One site Only
Temporal representation	Months of November, January, March, and February sampled
Data type	Numerical data
Use of standard method	
Potential Source(s) of Pollutant	Urban and agricultural runoff
Alternative Enforceable Program	Unknown
RWQCB Recommendation	List
SWRCB Staff Recommendation	List

Region 9

Agua Hedionda Creek

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	List

Region 9

Aliso Creek

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	List

Region 9

Aliso Creek

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	List

Region 9

Aliso Creek

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	List

Region 9

Aliso Creek

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	List

Region 9

Aliso Creek

Water Body	Aliso Creek
Stressor/Media/Beneficial Use	Toxicity/Water/WARM, WILD
Data quality assessment. Extent to which data quality requirements met.	2-5(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 samples. Organophosphate pesticides are found in urban and agricultural run-off.
Alternative Enforceable Program	Unknown
RWQCB Recommendation	List
SWRCB Staff Recommendation	List

Region 9

Cloverdale Creek

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	List

Region 9

Cloverdale Creek

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	List

Region 9

Dana Point Harbor

Water Body	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 #3 (column) entry for Pacific Ocean Shoreline (Ocean Beach)
Water Body-specific Information	Data age = 1 yr.
Data used to assess water quality	54 days of Beach Closures and/or General Advisories or beach closures suggested that REC-1 standards were exceeded.
Spatial representation	sampled within 400 yards (0.2 miles) of discharge point
Temporal representation	probable
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	List
SWRCB Staff Recommendation	List

Region 9

Dana Point Harbor

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.	Orange County 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	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 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.
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.
Data type	Numerical data
Use of standard method	RWQCB staff found that the lab used a non-standard method and that the data should be interpreted with caution.
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	List

Region 9

Felicita Creek

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 999, 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	List

Region 9

Forrester Creek

Water Body	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 yr.
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	List

Region 9

Forrester Creek

Water Body	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 Cajon4 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	List

Region 9

Forrester Creek

Water Body	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 sight
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	List

Region 9

Green Valley Creek

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	List

Region 9

Kit Carson Creek

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	List

Region 9

Lake Hodges (Hodges Reservoir)

Water Body	Lake Hodges (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	List

Region 9

Lake Hodges (Hodges Reservoir)

Water Body	Lake Hodges (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	
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	List

Region 9

Lake Hodges (Hodges Reservoir)

Water Body	Lake Hodges (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.
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	List

Region 9

Lake Hodges (Hodges Reservoir)

Water Body	Lake Hodges (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	
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	List

Region 9

Lake Sutherland (Sutherland Reservoir)

Water Body	Lake Sutherland (Sutherland 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, (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. Form 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.3 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 entire reservoir
Temporal representation	March 1997 to July 2001.
Data type	Numerical data
Use of standard method	
Potential Source(s) of Pollutant	Excessive algae growth, urban runoff, other point sources, and nonpoint sources
Alternative Enforceable Program	Unknown
RWQCB Recommendation	List
SWRCB Staff Recommendation	List

Region 9

Murrieta Creek

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/L) used
Water Body-specific Information	Data age = 2 year.
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	List

Region 9

Pacific Ocean Shoreline (Torrey Pines State Beach/Miramar Reservoir)

Water Body	Pacific Ocean Shoreline (Torrey Pines State Beach/Miramar Reservoir)
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	See #3 entry for Pacific Ocean Shoreline (Ocean Beach)
Water Body-specific Information	Data age = 1 yr.
Data used to assess water quality	32 days of Beach Closures and/or General Advisories or beach closures suggested that REC-1 standards were exceeded.
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	List
SWRCB Staff Recommendation	List

Region 9

Pine Valley Creek (Upper)

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	List

Region 9

Prima Deshecha Creek

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	
Potential Source(s) of Pollutant	Urban runoff, other point sources and nonpoint sources
Alternative Enforceable Program	Unknown
RWQCB Recommendation	List
SWRCB Staff Recommendation	List

Region 9

Prima Deshecha Creek

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	
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	List

Region 9

Sandia Creek

Water Body	Sandia Creek
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, One at top and One at 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	Unknown
RWQCB Recommendation	List
SWRCB Staff Recommendation	List

Region 9

San Diego Bay (Switzer Creek)

Water Body	San Diego Bay (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	List

Region 9

San Diego Bay (Switzer Creek)

Water Body	San Diego Bay (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	List

Region 9

San Diego River (lower)

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	List

Region 9

San Diego River (lower)

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 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 = 1 yr.
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	List

Region 9

San Diego River (lower)

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. Table of data, averages, etc. available.
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	List

Region 9

San Diego River (lower)

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. See the table below for the averages, medians and frequency of exceedances for three locations along the San Diego River. 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	List

Region 9

San Luis Rey River

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/mL; 12/99-11/00: 4/5 (80%) exceedences, mean=314.0 mg/mL. 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/mL; 04/00-11/00: 3/4 (75%) exceedences, mean=312.5 mg/mL. 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/mL; 04/00-11/00: 4/4 (100%) exceedences, mean=410.0 mg/mL
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	List

Region 9

San Luis Rey River

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/mL; 12/99-11/00: 5/5 (100%) exceedences, mean=1694 mg/mL. 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/mL; 04/00-11/00: 4/4 (100%) exceedences, mean=1613 mg/mL. 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/mL; 04/00-11/00: 4/4 (100%) exceedences, mean=1835 mg/mL. 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	List

Region 9

Santa Margarita River (upper)

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; 02and05/99: 1/2 (50%) violations, mean=0.17 mg/mL. (near Fallbrook) 12/97-11/98: 4/5 (80%) violations, mean=0.25 mg/m; 02and05/99: 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	Unknown
RWQCB Recommendation	List
SWRCB Staff Recommendation	List

Region 9

Segunda Deshecha Creek

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	Unknown
RWQCB Recommendation	List
SWRCB Staff Recommendation	List

Region 9

Segunda Deshecha Creek

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	Unknown
RWQCB Recommendation	List
SWRCB Staff Recommendation	List

Region 9

Tijuana Estuary

Water Body	Tijuana 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	Staff Report: 1/2 hr. Interval monitoring consistently below minimum Basin Plan Objective. Fact Sheet: typically dropped below 3 mg/L (10pm-8am), January-May 1998
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	
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	Unknown
RWQCB Recommendation	List
SWRCB Staff Recommendation	List

Region 9

Pacific Ocean Shoreline (Coronado Beach)

Water Body	Pacific Ocean Shoreline (Coronado Beach)
Stressor/Media/Beneficial Use	Bacterial indicators/Water/REC-1, REC-2
Data quality assessment. Extent to which data quality requirements met.	City of Coronado
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 = 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	
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. Delisting may encourage further action.
RWQCB Recommendation	Delist
SWRCB Staff Recommendation	Delist, and put on Watch List to continue to keep an eye on problem.

Region 9

Pacific Ocean Shoreline (Ocean Beach)

Water Body	Pacific Ocean Shoreline (Ocean Beach)
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 yr.
Data used to assess water quality	13 days of Beach Closures and/or General Advisories, which suggests that REC-1 standards were exceeded.
Spatial representation	Sampled within 400 yards (0.2 miles) of discharge point
Temporal representation	13 days of Beach 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	Add specific location (not new HA) to 1998 Listing
SWRCB Staff Recommendation	Add specific location to 1998 listing within same hydrologic area.

Region 9

Pacific Ocean Shoreline (South Capistrano State Beach)

Water Body	Pacific Ocean Shoreline (South Capistrano State Beach)
Stressor/Media/Beneficial Use	Bacterial indicators/Water/REC-1, REC-2
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	Closures a measure of impacts on beneficial use. Listing recommendation: >10 days/year beach closures or advisories.
Water Body-specific Information	Data age = 1 yr.
Data used to assess water quality	41 days of Beach Closures and/or General Advisories, which suggests that REC-1 standards were exceeded.
Spatial representation	Sampled within 400 yards (0.2 miles) of discharge point
Temporal representation	41 days of Beach 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	Add specific location (not new HA) to 1998 Listing
SWRCB Staff Recommendation	Add specific location to 1998 listing within same hydrologic area.

Region 9

Pacific Ocean Shoreline (San Onofre State Beach/San Mateo Creek

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	Closures a measure of impacts on beneficial use. Listing recommendation: >10 days/year beach closures or advisories.
Water Body-specific Information	Data age = 1 yr.
Data used to assess water quality	15 days of Beach Closures and/or General Advisories, which suggests that REC-1 standards were exceeded.
Spatial representation	Sampled within 400 yards (0.2 miles) of discharge point
Temporal representation	15 days of Beach 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	Add specific location (not new HA) to 1998 Listing
SWRCB Staff Recommendation	Add specific location to 1998 listing within same hydrologic area.

Region 9

San Diego Bay Kellog Street Beach (Pueblo San Diego HU [908.00]

Water Body	San Diego Bay Kellog 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 yr.
Data used to assess water quality	13 days of Beach Closures and/or General Advisories, which suggests that REC-1 standards were exceeded.
Spatial representation	Sampled within 400 yards (0.2 miles) of discharge point
Temporal representation	13 days of Beach 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	Add specific location (not new HA) to 1998 Listing
SWRCB Staff Recommendation	Add specific location to 1998 listing within same hydrologic area.

Region 9

San Diego Bay Shelter Island Shoreline Park (Pueblo San Diego

Water Body	San Diego Bay Shelter Island Shoreline Park (Pueblo San Diego 908.00 and Sweetwater)
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 yr.
Data used to assess water quality	24 days of Beach Closures and/or General Advisories, which suggests that REC-1 standards were exceeded.
Spatial representation	Sampled within 400 yards (0.2 miles) of discharge point
Temporal representation	24 days of Beach 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	Add specific location (not new HA) to 1998 Listing
SWRCB Staff Recommendation	Add specific location to 1998 listing within same hydrologic area.

Region 9

San Diego Bay, Coronado

Water Body	San Diego Bay, Coronado
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 yr.
Data used to assess water quality	17 days of Beach Closures and/or General Advisories, which suggests that REC-1 standards were exceeded.
Spatial representation	Sampled within 400 yards (0.2 miles) of discharge point
Temporal representation	17 days of Beach 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	Add specific location (not new HA) to 1998 Listing
SWRCB Staff Recommendation	Add specific location to 1998 listing within same hydrologic area.

Water Bodies Proposed for the Watch List by Region 9

Agua Hedionda Creek	
	Benthic community degradation
	Eutrophication
	Incised channel
Agua Hedionda Lagoon	
	Caulerpa taxifolia
	Copper (dissolved)
	Selenium
Aliso Creek	
	Chlordane
	Dieldrin
	Heptachlorepoxide
	PCB
Alvarado Creek	
	Benthic community degradation
	Eutrophication
	Sedimentation/Siltation
	Trash
Beach and Bay Shorelines displaying a Permanent Health Risk sign	
	Unknown constituents that may effect human health
Boulder Creek	
	Exotic vegetation (Tamarisk sp.)
	Hydromodification (scour from reservoir release)
Buena Vista Creek	
	Benthic community degradation
	Eutrophication
Chocolate Creek	
	Eutrophication
	Sedimentation/Siltation
Chollas Creek	
	Total chlordane
	Total PCB
	Trash
	Turbidity
Cloverdale Creek	
	Eutrophication
	Sedimentation/Siltation

Cottonwood Creek	
	Diazinon
	Eutrophication
	Exotic vegetation (Tamarisk sp.)
	Hydromodification (scour from reservoir release)
Deluz Creek	
	Sulfate
	Total dissolved solids
Delzura Creek	
	Erosion
	Eutrophication
	Incised channel
	Sedimentation/Siltation
Encinitas Creek	
	Diazinon
	Eutrophication
	Malathion
Escondido Creek	
	Benthic community degradation
	Diazinon
	Eutrophication
	Sulfate
	Total dissolved solids
Fallbrook Creek	
	Iron
	Manganese
	Phosphorus
Famosa Slough	
	Dieldrin
	Total chlordane
	Total DDT
	Total PCB
Forrester Creek	
	Eutrophication
	Trash
Green Valley Creek	
	Benthic community degradation
	Eutrophication
	Phosphorus
	Sedimentation/Siltation
	Trash
Hatfield Creek	
	Eutrophication
	Incised channel

King Creek	Eutrophication
Laguna Lakes	Bacterial indicators
Lake Hodges	MTBE
Loma Alta Creek	Benthic community degradation Eutrophication
Los Penasquitos Creek	Sedimentation/Siltation
Lower Otay Reservoir	Color Odor
Miramar Reservoir	Bromodichloromethane Chlorodibromomethane Chloroform Total dissolved solids
Murray Reservoir	Bromodichloromethane Chloride Chloroform Dibromochloromethane Phosphorus Sodium Sulfate
Murrieta Creek	Iron Manganese Total dissolved solids
Oceanside Harbor	Copper (dissolved)
Oso Creek	Chloride Phosphorus Sulfate Total dissolved solids Turbidity
Pacific Ocean Shoreline (Emerald Bay)	Bacterial indicators
Padre Barona Creek	Eutrophication Incised channel

Prima Deshecha Channel	
	Cadmium
	Nickel
Proctor Valley Creek	
	Trash
Rainbow Creek	
	Sediment toxicity
	Sulfate
	Total dissolved solids
	Trash
Reidy Creek	
	Nitrogen
	Phosphorus
Rose Creek	
	Sedimentation/Siltation
San Diego Bay at Mouth of Switzer Creek	
	Chlordane
	Lindane
	PAH
San Diego Bay at America's Cup Harbor	
	Copper (dissolved)
San Diego Bay at B Street Pier	
	Chlordane
	Lindane
	PAH
San Diego Bay at Harbor Island (East Basin)	
	Arsenic
	Cadmium
	Copper (dissolved)
San Diego Bay at Harbor Island (West Basin)	
	Copper (dissolved)
San Diego Bay at Laurel Street	
	Arsenic
	Cadmium
	Copper (dissolved)
San Diego Bay at Marriott Marina	
	Copper (dissolved)
San Diego Bay at North Island Aircraft Platform	
	Arsenic
	Cadmium
	Copper (dissolved)

San Diego Bay at Shelter Island Yacht Harbor	
	Arsenic
	Cadmium
San Diego Bay at South Bay Power Plant	
	Chlorine
	Thermal warming
	Turbidity
San Diego River	
	Benthic community degradation
	Benzene
	Chlordane
	Eutrophication
	Exotic vegetation (Water Hyacinth, Arundo sp., Tamarisk sp.)
	Methyl tertiary-butyl ether (MTBE)
	Trash
San Juan Creek	
	Erosion
	Incised channel
	PCB
	Sedimentation/Siltation
San Luis Rey River	
	Calcium
	Eutrophication
	Magnesium
	Phosphorus
San Marcos Lake	
	Dissolved oxygen
San Mateo Creek	
	Introduced (non-native) amphibian species: bullfrogs
	Introduced (non-native) fish species: black bullhead, bluegill, channel catfish, green sunfish, largemouth bass, mosquito fish
	Introduced (non-native) invertebrate species: non-native crayfish
	Introduced (non-native) plant species: saltcedar, other exotic vegetation
	Total dissolved solids
Sandia Creek	
	Lead
	Sulfate
Santa Margarita River (entire and tributaries)	
	Sedimentation/Siltation

Santa Margarita River (Lower)	
	Iron
	Manganese
	Sulfate
	Total dissolved solids
Santa Margarita River (Upper)	
	Iron
	Manganese
	Sulfate
	Total dissolved solids
Santa Maria Creek	
	Bacterial indicators
	Exotic vegetation (Tamarisk sp.)
Santa Ysabel Creek	
	Exotic vegetation (Arundo sp. and Tamarisk sp.)
Scove Creek	
	Bacterial indicators
	Incised channel
	Nutrients
Sorrento (Carroll Canyon) Valley Creek	
	Eutrophication
Sycamore Canyon Creek	
	Eutrophication
	Exotic vegetation (Arundo donax)
	Phosphorus
	Trash
Tecolote Creek	
	Sedimentation/Siltation
Tijuana River Estuary	
	Turbidity

Reference List for Region 9

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